UNIVERSITY OF SOUTHAMPTON

Gender Issues in the Management of Water Projects in Nepal

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I dedicate this work to my dearest parents

UNIVERSITY OF SOUTHAMPTON

ABSTRACT

FACULTY OF ENIGINEERING AND APPLIED SCIENCE
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Doctor of Philosophy

GENDER ISSUES IN THE MANAGEMENT OF WATER PROJECTS IN NEPAL

By Shibesh Chandra Regmi

Despite the importance of water for the survival of human beings and for many other reasons, many water supplies designed in Nepal have not been able to sustain the benefits to women and men. In view of women's pivotal role in the water sector, Gender and Development practitioners argue that one major reason for this failure is the lack of women's strategic involvement in project activities. Such an involvement can increase women's confidence, their income and thereby their bargaining power, their status and thereby their decision-making ability, and their continued interest towards the projects. All of this should lead to sustainability of project benefits as well as to a society with greater gender equality and balanced power relationships, all of which are strong indicators of sustainable human development. In turn, this research was carried out to examine gender issues at international, national, institutional and project levels, and their impact in meeting women's strategic gender interests at community level, as all these are inter-linked. Altogether, four projects from three agencies, namely non-governmental, bilateral and governmental, were selected for this purpose. The research locations represent western, mid-western and eastern regions, and include both gravity flow schemes and point sources. Participatory research techniques, such as semi-structured interviewing, activity calendars, observation, group discussions, etc., using detailed checklists, were followed to collect information required by this research. The sources of information were both men and women at all levels – agencies, projects and communities.

Based on the findings of the research, a number of conclusions have been drawn. Some of those conclusions are as follows: i) Drinking water projects in Nepal are still concerned with meeting only the practical gender needs of community women and men but not with women's strategic gender interests since the water sector at all other levels – international, national, institutional, and project that affect the outcomes of projects at the community level – is gender weak. The NGO sector seems to be relatively more gender sensitive than others though it also has to go a long way in order to be truly gender sensitive in its activities. ii) The community level framework of women' strategic gender interests, consisting of five indicators suggested in this research for a gender analysis of impact in the water sector, appears to be useful and relevant. However, the research findings suggest that these five indicators should be split into six to make the framework more realistic, user-friendly and comprehensive. The suggested framework should now include: women's physical presence in project activities, women's participation in decision-making, changes in the traditional gender division of labour, women's access to and control over income, equity in sharing of benefits, and women's increased status leading to new development initiatives. iii) The institutional level framework, consisting of eight indicators suggested in this research to study gender issues at the agency level, is quite useful and relevant. Nonetheless, the research findings suggest that some of these eight indicators should be split to make the framework even more relevant and comprehensive. The suggested framework now includes ten indicators as follows: policy-formulating mechanisms, objectives and strategies, personnel policies, organisational structure, organisational culture and management style, provision of gender training, provision of capital and human resources, sharing of power between women and men staff, role of change agents, and relationships with external agencies. Based on the findings of this research and these conclusions, some action plans have been developed to improve gender sensitivity at all these levels in the drinking water sector.

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ACKNOWLEDGEMENTS

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ABBREVIATIONS

ADB	Asian Development Bank
AKRSP	Aga Khan Rural Support Programme
BRAC	Bangladesh Rural Advancement Committee
CDO	Chief District Officer
CHV	Community Health Volunteer
CMS	Consolidated Management Systems
CPMO	Central Project Management Office
CWSS	Community Water Supply and Sanitation Scheme
DC	District Council
DDC	District Development Committee
DWRC	District Water Resources Committee
DWSO	District Water Supply Office
DWSS	Department of Water Supply and Sewerage
EC	Executive Committee
FAO	Food and Agriculture Organisation
FINNIDA	Finnish International Development Agency
FRWSSSP	Fourth Rural Water Supply and Sanitation Sector Project
GAD	Gender and Development
GC	General Council
GNA	Gender Needs Assessment
HMG	His Majesty's Government
IDWSSD	International Drinking Water Supply and Sanitation Decade
INGO	International Non-governmental Organisation
INSTRAW	International Training Inst. for the Advancement of Women
IRC	International Water and Sanitation Centre
LDD	Local Development Department
MHPP	Ministry of Housing and Physical Planning
MPLD	Ministry of Panchayat and Local Development
NEWAH	Nepal Water for Health
NGO	Non-governmental Organisation
NPC	National Planning Commission
NRCS	Nepal Red Cross Society
NWSSP	National Water Supply Sector Policy
ORT	Oral Rehydration Therapy
PRA	Participatory Rural Appraisal
PMC	Project Management Committee
RD	Regional Directorate
RPMO	Regional Project Management Office
RWSSP	Rural Water Supply and Sanitation Project
SC	Steering Committee
SDC	Swiss Development Cooperation
SMT	Senior Management Team
SO	Support Organisation
UG	Users' Group

UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations International Children's Emergency Fund
VC	Village Council
VDC	Village Development Committee
VHL	Village Health Leader
VMW	Village Maintenance Worker
WDO	Women Development Officer
WECS	Water and Energy Commission Secretariat
WISP	Women Involvement Sanitation Programme
WID	Women in Development
WRA	Water Resources Act
WRR	Water Resources Regulation
WSST	Water Supply and Sanitation Technician
WUA	Water Users Association
WUC	Water Users Committee

1. INTRODUCTION

This chapter presents an overview of the research problem, research hypothesis and research objectives. Also explained in this chapter are the focus of the research, significance of the research, limitations of the research and information on how this thesis has been organised.

1.1 Statement of the Problem

Water is, literally, the source of life on earth. The human body is 70% water. People begin to feel thirst after a loss of only 1% of bodily fluids and risk death if fluid loss nears 10%. Human beings can survive for only a few days without fresh water. Despite this reality, only one one-hundredth of 1% of the world's total supply of water is considered easily accessible for human use. As a result, today 31 countries, accounting for about 8% of the world population, face chronic fresh water shortages. By the year 2025, however, 48 countries are expected to face shortages, affecting more than 2.8 billion people - 35% of the world's projected population (Population Reports, 1998). Even in South Asia, including Nepal where this research was undertaken, the last 50 years of water management has been the story of an unfolding disaster. Throughout the region, the water and energy requirements of cities and villages have confronted decline in the quality and quantity of water. These years have made societies in the region more vulnerable to environmental degradation. The over emphasis on the technical aspects of water supplies has ignored existing indigenous knowledge (Ahmed et al. 1997).

Experience in the rural sector has shown that, within five years of installation, up to half of all new water supply systems are not functioning (Simpson-Hebert, 1989). Similar experiences are reported by Dixit and Crippen (1993) from Nepal as they write that many schemes have been built with the assumption that users would continue the maintenance. However, this notion that beneficiaries would automatically be able to maintain a project has proven to be incorrect as indicated by probably more than 50% of the schemes that are not providing adequate service and are in need of repair and rehabilitation. Though designed to operate for about 20 years and built during the last few years, the majority of the schemes have ceased to function before reaching even half of their design life.

This situation highlights the immense need to effectively manage whatever water resources are available at present in the world. Since the shortage of water affects women more than men, as the former are traditionally considered responsible for the management of domestic water along with maintaining the health and hygiene of the family members, the United Nations (UN) Decade for Women (1975-1985) took this matter as a serious concern. The main concern of the Women's Decade was women's equality in all sectors including that of drinking water. Accordingly, the Plan of Action adopted at the UN Conference on Women in Mexico in 1975 stated that improved water supplies, sewage disposal and other sanitation measures should be provided both to improve the health conditions of families and to reduce the burden of carrying water, which falls mainly on women and children. This statement was reiterated in the action plan adopted at the Mar del Plata Water Conference in 1977, and a resolution was passed at the UN Mid-Decade Conference on Women held in Copenhagen in 1980 which demanded that member states and UN agencies, including specialised agencies, should promote the full participation of women in planning, implementation and application of technology for water supply projects (Wakeman et al. 1996).

The main argument of the Women's Decade in relation to water was that the health of human beings, especially children, is greatly affected by the quality of drinking water, and 80% of the sicknesses and diseases in the poor developing countries are caused by poor quality water. The role of women in this sector is unquestionable, as they are traditionally considered responsible for meeting the household needs of water and taking care of the children, as well as maintaining the health of the family members. Therefore, women should be included in all aspects of project activities so that all these practical needs related to water are met. In turn, the dominant Women in Development (WID) approach claimed that women should be considered as the primary beneficiaries in the water supply projects. It emphasised that women can get involved in income generating activities in the time saved by improved water services.

The limitations of technically-oriented drinking water projects in providing people with sustainable practical benefits were further realised in the International Drinking Water Supply and Sanitation Decade (IDWSSD) launched in 1981. The aims of the IDWSSD stated that drinking water is a basic need for human survival, and hence everyone should have access to an adequate amount of safe drinking water; the local governments should take this matter seriously. The IDWSSD further indicated that, unless and until the recipient communities are

involved in the planning and design of water and sanitation projects, they cannot be effective. Because women deal with almost all water supply activities, it was well appreciated at the international level, by the second half of the IDWSSD, that community participation should include both women's and men's involvement. The IDWSSD stressed the fact that women are more than target groups, they are active agents who can contribute to the Decade efforts in decision making, generating ideas for policy-making, mobilizing labour, providing resources, and disseminating and implementing innovations. By involving women, particularly in the planning, design, and operation and maintenance stages, as well as in complementary health education programmes, water and sanitation projects can be expected to be more effective in achieving improved water services in terms of adequacy, quality and better health.

By the end of the IDWSSD, it was also accepted that the notion of water supply being a masculine field needed to be changed - the sector had to be feminised if women's participation was to be achieved (Simpson-Hebert, 1989). The lack of attention to community involvement in general, and women's involvement in particular, was frequently given as the reason for a failure in the drinking water sector (Kalbermatten, 1991 in Cleaver and Jobes, 1996). A number of studies had also shown by then that the active participation of women can lead not only to the higher efficiency of water projects but also improvements in women's status and roles in development (INSTRAW and UNICEF, 1988; INSTRAW, 1989; and INSTRAW, 1989a). The emphasis led by the Women's Decade, IDWSSD and various studies (van Wijk-Sijbesma, 1985; UNDP/PROWWESS, 1990; Mathew, 1991; New ERA, 1991; IRC, 1994; Bhatt, 1995; Ahmed et al. 1997) conducted in different countries during and after the IDWSSD, which have clearly shown the effective roles that women were playing and could play in the management of water supplies, encouraged the national governments and development agencies in developing countries to involve women in various phases of the water projects implemented thereafter (Narayan Parker, 1993; Hannan-Anderson, 1990; New ERA, 1991; World Bank, 1992; Baden, 1993).

The experiences available so far reveal, however, that, though there have been quite positive effects of women's active involvement in the water sector, including some changes in their leadership and management roles (IRC, 1993; Mwangola, 1991 in IRC, 1993; Narayan-Parker, 1993 in Wakeman, 1995), the water projects are still involving women in providing labour, cleaning the areas around the water points, cooking food at construction sites and non-decision

making roles such as collecting water tariff (Buringa and Tshering, 1992; Frimpong, 1991 in IRC, 1993; IRC, 1993; IRC, 1994). The gender aspects in the management of rural water supply are still overlooked within the development of water supply schemes. These studies report that, in general, women are involved in low positions that neither give them any financial reward nor any decision-making role. There were no attempts from the projects discussed in these sources to create any space for women to fulfil their strategic interests such as higher status in the household and the community, greater power to make decisions which can increase their access to, and control over, resources, and the ability to transfer their work load to their fellow men. On the other hand, men are employed in paid positions, are provided skill-oriented, technical training and are given the majority of the seats, including the positions of Chairperson and Vice-Chairperson, with higher decision-making power in the water committees.

This kind of involvement of women in water supply projects, as argued by Gender and Development (GAD) practitioners, does not lead to women's empowerment, which is the ultimate objective of a GAD approach for a better societal development. The argument continues that women have been involved in water supply projects only to increase the efficiency of the project by bringing improved water services near people's homes (due to the influence of the welfare and the efficiency approaches of WID to fulfil people's practical gender needs), but not to meet women's strategic gender interests, which are the basis for women's empowerment (the ultimate aim of the GAD approach). As it is currently defined in the GAD literature, practical gender needs are those which are related to meeting inadequacies in living conditions, whilst strategic gender interests are those which aim to empower women by giving them rights to make decisions, control their bodies, change the existing gender roles, own and control land and property, claim equal wages etc. GAD practitioners further argue that the present practices of involving women, as described above, can widen the gap between men and women and further strengthen the existing gender inequality and power imbalances between the two sexes. The ultimate effects of this can be that the water supply projects cannot lead to a society with sustainable human development. (A detailed discussion on practical and strategic gender needs is presented in Chapter 3.)

van Wijk-Sijbesma (1998) argues that water resources development and management practices which have a negative impact on women also have a negative impact on development. Water development and management projects that exclude women as actors,

and as an interest group, bypass half the population and reduce the efficiency and effectiveness of the project. A gender-based approach, on the other hand, as argued by IDS (1995), 'seeks the active involvement of women together with men, taking into consideration the relations, differences, needs and concerns between them so that the analysis can lead to appropriate planning which aims to improve women's position in relation to men'. GAD practitioners argue that women are demonstrably active agents in development, and have a vital role to play in the success of development projects, including those concerned with water supplies. To allow women to play this role effectively, development projects should try to strengthen women's position, confidence, and voice. Development projects (whether dealing with water supplies or other kinds) can meet the genuine needs and concerns of women and men if they give attention to meeting women's strategic gender interests as well as their practical gender needs (Moser, 1993; van Wijk-Sijbesma, 1998; Mosse, 1993).

Given the above discussions, it seems now to be an appropriate time to learn practical lessons from the growing range of experiences of projects in the water sector which have tried to involve women, and to disseminate those lessons in forms appropriate to different project stakeholders - field workers, project managers, policy-makers, and aid donors. Since the task of meeting poor women's strategic gender interests is governed by organisational policies and practices, as well as national policies and international policies in the water sector, it is also important to examine these policies and practices. Thus, this research attempts to examine the gender issues involved at different levels, such as international, national, institutional, and project, and their effects in empowering women at the community level by meeting their strategic gender interests along with their practical needs. Finally, the research aims to offer some conclusions to make the water sector more gender sensitive.

1.2 Research Hypothesis

Despite the global realisation of the contribution of women in the drinking water sector, the sector in developing countries is still concerned with meeting only the practical needs of men and women but not the strategic gender interests of women which could empower them to be active partners in the overall development process, and which would improve the likelihood of sustainable practical benefits.

1.3 Research Objectives

The general objective of this research is to make an analysis of some selected non-governmental organisation (NGO), bi-lateral and government institutions involved in the drinking water sector in Nepal from a gender perspective. While doing so, an attempt will be made to examine the extent to which the drinking water projects of those institutions have brought positive effects in meeting women's strategic gender interests as well as meeting their practical needs. In order to meet these broad objectives, the following specific objectives have been defined:

- To examine gender sensitivity in the international water policies and in the national policies and practices of the drinking water sector in Nepal (international and national levels)
- To analyse gender aspects of the institutional policies and practices of the organisations involved in implementing drinking water projects (institutional and project management levels)
- To assess the outcomes of the selected drinking water projects in relation to meeting women's strategic gender interests (community level)
- To draw some conclusions and offer some recommendations to promote gender sensitivity at all levels in the drinking water sector

1.4 Focus of the Research

Since water is a large topic, it will be useful to clarify here that the focus of this research is on domestic water supplies implemented by the selected agencies, Nepal Water for Health (NEWAH), Rural Water Supply and Sanitation Project (RWSSP) and Fourth Rural Water Supply and Sanitation Sector Project (FRWSSSP) in the rural areas of Nepal. Geographically, the research areas fall under western, mid-western and eastern Nepal. In the western and mid-western sectors, the research was carried out in Tarai (plain flat land) covering point source schemes (tubewells), whilst in eastern Nepal the research was carried out in the hills, covering gravity flow schemes (tapstands). Detailed information on these aspects is presented in Chapter 4.

This research was sponsored by the British Department for International Development (DFID). A similar research project under the DFID funding is also being undertaken in India.

1.5 Significance of the Research

This research is the first of its kind because it explores jointly the gender issues prevalent in the water sector at various levels - international, national, institutional and project - and their impact in meeting women's strategic gender interests at the community level. The analysis of international and national level policies in the context of the drinking water sector in Nepal is another contribution of this research. Another new task carried out in this research is its attempt to explore the applicability of the institutional level gender issues reported in the development sector in general to that of the water supply sector. This application has led to the formulation of a framework for gender planning and analysis at the institutional level of the water sector. Finally, the research has also developed a theoretical framework for analysing women's strategic gender interests vis-a-vis women's empowerment in the context of the drinking water sector at the community level. This framework can also be useful to analyse the outcomes of other development interventions in empowering women vis-a-vis men. Given the practical contribution of this research in understanding gender issues at all levels in the drinking water sector and some theoretical contributions for gender planning and analysis of development interventions, especially in the water sector, it can be said that the findings of this research will give a new dimension to other academics, researchers, and the people and agencies involved in the drinking water sector to make their work more gender sensitive, leading to a better development of both Nepal and other countries.

1.6 Limitations of the Research

The research has tried to be as comprehensive as possible to uncover gender issues prevalent in all levels - from international policy to the local community - of the drinking water sector though this has proved quite difficult due to lack of adequate literature on some levels. Further, some limitations were also observed whilst working at the institutional level where regular interactions, thorough communications and constant observations with the agency staff were not possible. Such interactions could have helped to dig out even more deeply-rooted gender issues than those reported in this research; these types of interactions are possible when the agency itself initiates such research, which was not, however, the case in this research. As a result, it was not possible to stay for a longer duration in the institutions, observing all institutional activities for weeks and months, which could have uncovered some

other interesting gender dimensions. Despite this limitation, whatever gender issues have been identified at the institutional level are still very comprehensive and useful in the water sector. Such issues can therefore guide any further research that is designed to explore the gender issues in the institutions.

It is also essential to mention here that because this research had to study several projects and agencies at various different levels, and given the limited time and other resources available, - it was not possible in this research to go into great depth concerning the differential impact that the selected projects might have made on various categories of women and men in the project communities. Nevertheless, such differences have been highlighted wherever possible in the thesis.

1.7 Organisation of the Thesis

This thesis has been organised into eight chapters followed by a list of references and appendices. Chapter One presents the statement of the research problem, research hypothesis, objectives, focus, significance, and limitations of the research. Chapter Two provides a review of gender issues in the management of domestic water supply at various levels, from the international to the local community, and the roles of government and women in water supplies in Nepal. Chapter Three describes various frameworks that have been developed for gender analysis and draws on their strengths and weaknesses to develop a new framework which has been used in this thesis for analysis of the data collected in several rural communities. Study contexts, including introduction to Nepal, gender situation in Nepal, social context of Nepali villages, and description of institutions and communities selected for this research, research techniques, selection of informants, and the types of information collected and the analysis techniques have all been explained in Chapter Four.

The research findings are presented in Chapters Five to Seven. The gender issues prevalent at the international and the national policy levels are discussed in Chapter Five. The gender issues prevalent at the institutional and the project levels are covered in Chapter Six. Chapter Seven analyses the effectiveness of the selected projects in meeting the strategic gender interests of women at the community level. This analysis makes use of the framework of indicators developed in Chapter Three. Conclusions, related to the relevance of the framework used in Chapter Seven and projects' effectiveness in meeting women's strategic

gender interests at the community level, together with some suggested actions and further work to be done, are presented in Chapter Eight. The thesis ends with a list of references followed by a series of appendices, which contain information required to supplement the analysis presented in Chapters Five, Six and Seven.

2. GENDER ISSUES IN THE MANAGEMENT OF WATER SUPPLIES: A HISTORICAL REVIEW

The purpose of this chapter is to review the contemporary views on gender issues in the management of domestic water supply at various levels: international, national, institutional, project and community. A number of observations that were noted whilst undertaking this activity are as follows: i) The review of gender issues at the international and national policy levels of water supply had to rely on limited sources due to non-availability of adequate materials showing the impact of policies at these levels in meeting women's strategic gender interests at community level. ii) Gender issues at the institutional level have been drawn from studies carried out in the development sector in general for the same reason as mentioned above. The purpose of doing this is to ensure that these issues are relevant for consideration when analysing the institutions selected for this research from a gender perspective, which is one of the primary objectives of this research. iii) There are adequate references dealing with gender issues at the project and the community levels. However, even at the community level, there is virtually no documentation analysing the impact of gender insensitive policies and practices in meeting women's strategic gender interests (women's empowerment), which is another key objective of this research. Because of these reasons, this research, as mentioned in the previous chapter, can be a milestone in giving new dimensions to this topic.

Also reviewed in this chapter are the roles of government and women in water supplies in Nepal, where this research was undertaken.

The sources of information on these issues were: books, research studies, project reports, journals, policy documents, development plans, abstracts, web site (internet), case studies, periodic information bulletins, etc. Most of these materials are written by researchers, practitioners and project evaluators from their experiences of water supplies implemented mostly in Asia, Africa and Latin America.

2.1 International and National Policy Levels

This section begins with a review of the global trends and initiatives in domestic water, and the current perceptions of the international community in the sector from a gender perspective. Though exploring gender issues at this level was not originally planned, this task had to be carried out as a preliminary study since the international community can influence the national and the NGO/INGO level water policies due to their financial ability. For example, the policy documents of the World Bank (Annual Report 1995/96) and the ADB (1998) mention that they advise, encourage and expect the recipient governments to adopt the strategies that they have proposed.

Water will be a critical resource for sustainable economic development in the coming decades. Population growth, rapid urbanisation and industrialisation are imposing rapidly increasing demands on water services and pressures on the water resource. In many developing countries, as reported by ADB (1998), between 60% and 95% of water withdrawals are used for agriculture. An estimated 737 million people in rural areas, and 93 million people in urban areas, still have no access to safe drinking water. Even more people are without sanitation facilities. A number of meetings/conferences were held (Appendix 1), and various strategies have been adopted, to resolve the problems of the shortage of water supply over the last three decades; the gender aspects of these strategies have been discussed below.

The global realisation of the adverse effects of inadequate water supply and poor sanitation facilities on human beings took place at the United Nations (UN) Conferences held in Vancouver, Canada, in 1976, in Mar del Plata, Argentina, in 1977, and in Alma Ata, Kazakhstan, USSR, in 1978 (Population Reports, 1998). Even before these conferences, this issue of lack of safe drinking water and its effects on human beings in general, and on women in particular as they have to shoulder the burden of meeting the household need for water by walking for several hours, was discussed, as mentioned in Chapter 1, during the UN Conference on Women held in Mexico in 1975. Despite the emphasis given by this conference on the role of women in water supplies, this issue did not get much attention in the water conferences held before 1980. Nevertheless, one of the major outcomes of these conferences was to declare 1981-90 as the International Drinking Water Supply and

Sanitation Decade (IDWSSD). The other achievement was that they identified the inadequate supply of drinking water and lack of sanitation facilities as a significant factor affecting human lives, and the source of the majority of the diseases found in developing countries. The conferences thus made a strong commitment to give priority to make provision of improved water supply to 1,500 million people and for sanitation facilities to 750 million people, and instructed national governments to proceed with this objective. During this period, the states were considered as the providers of water facilities. The role of the local community in general, and of women in particular, was not addressed at these conferences.

Even in the conferences and meetings held after the beginning of the IDWSSD, the role of women in water supply and sanitation was not addressed until the ninth meeting of the Steering Committee, held in April 1982. One probable reason for women to get attention at this meeting could be the resolution passed at the UN Mid-Decade Conference on Women held in Copenhagen in 1980, which demanded that all international and national agencies should pay serious attention to involving women at all stages of drinking water projects. Accordingly, this meeting established an Action-Oriented Inter-Agency Task Force of the Committee for fostering women's participation in activities of the IDWSSD (Box 1). One major reason highlighted for women's higher participation in water supply was because of their key role in water supply, sanitation and other hygiene-related activities in both the household and community, since the poor management of these elements could have serious implications on the lives of all human beings.

Box 1: Mandate of the Action Oriented Inter-Agency Task Force, April 1982

The mandate of the Task Force was: i) to develop a strategy for the enhancement of the role of women within the IDWSSD, ii) to assist in activities in support of the IDWSSD programmes in relation to the role of women, iii) to act as a mechanism for collaboration in the development and implementation of activities at international and national levels, iv) to monitor, evaluate and report on the implementation of IDWSSD policies and programmes related to women, in order to ensure that they adequately reflect the concerns, needs and contributions of women, and v) to recommend further action in this regard (Population Reports, 1998; Wakeman et al. 1996).

Accordingly, it was decided that a strategy document should be developed on the promotion of women's participation in water supply and sanitation activities at the 10th meeting of the Steering Committee, which was endorsed by its 11th meeting held in late 1983. However, by 1985, it was realised that the targets set were not achievable. The major reasons were: too

much focus on technical aspects, lack of proper understanding of the local community, and lack of people or agencies responsible for operation and maintenance of completed projects (Population Reports, 1998; Wakeman et al. 1996). Since the effects of these failed projects had to be faced by women in general, and more so by those in the poor marginalised population, it was realised that a proper understanding of the community dynamics, including the socio-economic and cultural aspects, was needed. It was also felt that the technology of the water systems needed to be simpler so that the local community could manage them better. Accordingly, the involvement of people from other sectors, especially the social sciences, was felt necessary to deal with the social, cultural, economic and environmental aspects of the drinking water projects as they determined their sustainability.

To tackle these shortcomings, a body called "External Support Agencies (ESA) Collaborative Council" was formed in 1988. The ESA's goal was to help the national governments in formulating appropriate sector policies. The attempts of the ESAs was further stressed in the Global Consultation Forum held in New Delhi in 1990 which set out four basic principles related to water which were guided by the new slogan: 'some for all rather than more for some'. One of the principles is related to the full participation of women in the sector institutions. This forum also changed the role of ESAs in such a way that the water sector of the national governments should be managed by themselves and not by the ESAs, as originally planned. Accordingly, the name of the ESA Collaborative Council was changed to Water Supply and Sanitation Collaborative Council (WSSCC). The first meeting of the WSSCC, held in Oslo in 1991, focused on seven key areas related to improved planning and management of water supplies, one of which was 'gender and sustainability'. The other emphasis of this forum was on the role of national governments as facilitators rather than providers, unlike in the past (Wakeman et al. 1996).

Realising the severity of the problem of the lack of safe drinking water, emphasis was then put on the integrated/holistic management of fresh water at the Dublin Conference on Water and the Environment in 1992. The Dublin Conference established four principles that guide the current international thinking on water (Box 2). The Dublin principles were further advocated at the UN Conference on Environment and Development in Rio de Janeiro in 1992, and incorporated into Agenda 21, Chapter 18 (Fresh Water), one of the principal

documents of the Rio Earth Summit. Several other meetings, conferences and events on water have been held in the last six years following the Earth Summit (ADB, 1998). The focus of all these meetings, conferences and events has been on the effective implementation of the Dublin and Rio principles. Emphasis has also been placed on the role of national governments in formulating strategies that ensure both the availability of water for poor people and the enhancement of women's participation in project activities.

Box 2: Dublin Principles

- Freshwater is a finite and vulnerable resource, essential to sustain life, development, and the environment;
- Water development and management should be based on a participatory approach involving users, planners, and policy-makers at all levels;
- Women play a central part in the provision, management and safeguarding of water;
- Water has an economic value in all its competing uses and should be recognised as an economic good (ADB, 1998).

The two world conferences on women held, after the UN Decade of Women (1976-1985), in Nairobi (1985) and Beijing (1995), have been instrumental in pushing the role of women onto the agenda of international conferences on water. However, it might be worthwhile to mention here that among the five strategic approaches to freshwater management adopted during the Sixth Session of the UN Conference on Social Development in April 1998, women have not been mentioned explicitly in any of them (ADB, 1998).

Overall, unlike the pre-IDWSSD period, water in the 1990s has been regarded as a resource to be treated efficiently in its multiple uses. The present focus is on the integrated approach to water. To control the unaccounted use of water, emphasis has been placed on seeing water as a finite, vulnerable resource and hence, one to be treated as an economic good. The sector has felt it necessary to involve the local community, including women, in the management of water supply for its sustainability, and also for wider-socio-economic development. The post-IDWSSD period has been influenced by the Dublin and Rio Principles and all efforts, both at the international and the national level, have revolved around the concepts of demand-driven approaches and cost-recovery aspects. Accordingly, a lot of emphasis has been placed on the mobilisation of the private sector to provide water services on behalf of local governments.

Although a detailed analysis of the current international view on water from a gender perspective will be found in Chapter 5, a few observations are presented here to set the right context for that chapter.

One major principle of the Dublin conference is that water should be treated as an economic good. Supporting this principle, Wakeman et al. (1996) note that an economic analysis of water from a gender perspective, which shows the gender differentials in activities, resources and benefits of household water use, can be very useful while preparing plans. They go on to say that, as women and girls are often the primary managers of water facilities, determining what kinds of services they as well as men prefer will be essential. This will lead to the control of the mis-use of water. However, the point is that once the water is considered as a commodity, those, who can use it for productive purposes for more economic benefits, such as large industries and big land holders, can have unlimited use which can lead to severe curtailment in the supply of drinking water at the domestic level; all these experiences have been well documented by van Wijk-Sijbesma (1998). Even though the international sector has well appreciated, at least in their policy documents, that priority in the supply of water will be given for drinking purposes, this might not happen in reality once the private sector takes on the responsibility of water supply, which is highly encouraged by the international community. The effect is that women, who are responsible for managing water in the households, are hard-hit by such a situation as they have no voice with which to justify the need of water for basic survival due to not being able to pay for it.

Furthermore, the concept of the economic good of water can also create conflicts between women and men at the household level itself, since experiences (van Wijk-Sijbesma, 1998) show that the former will be more concerned with its household use, while the latter with its use in agriculture for irrigation. Though supporting this concept of economic good, Wakeman et al. (1996) write that these varying roles need to be recognised; that both women and men need to be involved in discussions for protecting water resources for their efficient use for various purposes, experiences, from this research, as presented in Chapter 7, and others (Mustanoja, 1998; Shtrii Shakti, 1995), show that women have very little decision-making power on household matters, especially those related to economic aspects. As a result, men can divert the use of water for their own purposes, leaving women to continue going to their

traditional sources located at a far distance (van Wijk-Sijbesma, 1998). More discussions on the issue of water to be treated as an economic good have been presented in Chapter 5.

Drinking water has significant impact on the health of human beings. One WHO estimate claims that 80% of sickness and disease in the world is due to inadequate water supply and sanitation (New ERA, 1991). The lack of access to safe and clean water due to the inability to afford it, may lead to negative effects on human health leading to an increase in women's burden as they take care of sick persons in the family. This is the origin of the opinion that water should be regarded as a social good and not only as an economic good. Because women and girls are so closely involved in household water supply, they often benefit the most when the village supply is improved. As Wakeman et al. (1996) note, 'when water quality and quantity improves and water is available closer to home, many advantages exist: girls and women take shorter trips carrying heavy containers, women may have more time for income-generating activities and for leisure, there will be improvement in the health of the family members, and girls may have time to go to school and spend more time there'. However, here also one can argue that women may not be able to take advantage of any social benefits resulting from improved water services since they cannot pay, either for their capital costs or for their operational costs due to not having access to, and control over, resources.

One of the Dublin principles is concerned with the management and decision-making about water at the lowest appropriate level. Agreeing with this principle, Wakeman et al. (1996) note that, as women are often the managers as well as the direct users of water facilities, involving them as well as men in management and decision-making helps ensure that systems meet women's needs. Women use systems frequently and are in a good position to provide accurate, up-to-date reporting on the functioning of a given system. If a system breaks down, it is women, not men, who will most likely be the ones to travel further to get water. Women, therefore, need to be involved in making decisions about the water supplies. The weakness of this principle is, however, that because the women are powerless in the communities due to their lack of education, reduced access to and control over resources, and other social and cultural factors, the chances of their involvement in the management of water resources is bleak. Even when they are involved, their number will be very small as seen in many water committees around the world, and hence women will not be able to voice their concerns.

Therefore, it is necessary that such a principle is further elaborated to clarify 'how' aspects of women's participation rather than simply saying that women's participation will be sought, because the danger is that women's participation can be misinterpreted only as project beneficiaries but not as active change agents.

For example, a number of international agencies have emphasised the need for women's incorporation in professional, managerial and technical positions at all levels so that the water projects can be more effective, not only in meeting people's needs but also for women's economic and social development (UNDP/PROWWESS, 1990 in FINNIDA, 1993; UNCED, 1992 in IRC, 1994; FINNIDA, 1990 in FINNIDA, 1993; DANIDA, 1992 in IRC, 1993; SIDA, 1987 in IRC, 1993; IRC, 1994 referring about UNICEF). But to take one example, of UNCED and the World Bank, they have singled out women as a special category within Chapter 18 of Agenda 21 of their policy paper instead of integrating them into the mainstream. The policy paper has appreciated women's role only as providers of water for domestic consumption, but not as those who are active in productive activities as well (Green and Baden, 1994a). The authors further argue that this kind of compartmentalisation of women distances them from their relationships with men, and reinforces the gender gap even if they have been well mentioned in the policy document. These agencies have failed to mention women in relation to men, nor have they defined how the system of social relations (including gender relations), within which they operate, determines women's participation in the management of water projects. When women and men and their rights, roles, responsibilities and relationships with each other are not mentioned together in the policy documents of donors it is very likely that neither they will be mentioned in the policy documents of their partner governments and other agencies nor will the people, both from the implementing agencies and the partner communities, involved in planning, designing, and implementing projets have any appreciation of women's roles.

As at the international level, gender issues need to be considered in national level policies. As mentioned in the beginning of this section, the international agencies/donors play an effective role at this stage due to their financing power. Macdonald et al. (1997) and Oxfam (1997) note that real commitment shown by donors in addressing gender issues will compel recipient governments and other agencies to formulate policies that are gender sensitive. In principle, national governments should adopt an unambiguous policy commitment, backed up by

adequate funds, to involve women in the water sector. Supporting the importance of incorporating gender issues at the national policy level, Goetz (1998) also writes that integrating gender into national development plans and allocating budgets accordingly indicates governments' real commitment to gender as these are important public statements and are translated into action without any question.

On the other hand, the lack of clarity about gender roles in legislation can create confusion while formulating national policies. For example, Nepal's Water Resources Act 1992 does not require the involvement of women in district level water users committees, though it does require that at least 20% of the members of village-level water users associations should be women. As a result, the policies are silent about women's role beyond the village level (HMG/Nepal, 1995). This kind of ambiguity in legislation can affect women's involvement at any level as has been discussed in detail in the forthcoming chapters.

Contrary to this, the specific treatment of gender issues at the national policy level can lead to better project results. For example, Tanzania has included explicit statements about gender in its national water policy. The water policy of 1991 has formalised the training, participation and involvement of women. Tanzanian policy aims to have more equal gender involvement in control of benefits from rural water supply projects, and also that half of village water committee members should be female. As reported in a report by Wakeman et al. (1996), a Tanzanian-Danish review mission found all these features met in a number of water projects funded by DANIDA. The mission further reports that the socio-economic impacts of the projects have been felt mostly by women and children, with children collecting more water, and women having more time in their fields because the new water sources are closer to home and safer in the evening. The same report further mentions that, under the same Tanzanian policy, SIDA also has funded a number of water supply projects in Tanzania. The evaluations conclude that although much remains to be done to increase women's participation in the water sector, women's involvement in water supply is far stronger in those project sites than in the other three villages chosen for comparison.

Similar experiences have been reported in some water projects in the Philippines. As Wakeman et al. (1996) report: "the Philippines has gender sensitive policies at the national

government level. These policies, reinforced by explicit attention to co-ordination, provide a supportive environment for gender and development efforts in the water and sanitation sector, and women are more involved in the sector than in many other countries, though activists in the sector note that there is still more to be done". The authors cite two successful projects which are the results of gender sensitive national policies (Box 3). The other positive aspect of the national policies of the Philippines is that it also has made provisions for calling at least 5% of funds from international donors to support programmes that include mainstream gender concerns into development and this percentage is expected to increase to between 10 and 30% in the future. Though this figure of 5% seems low at present, it shows the government's commitment in addressing gender concerns in the water sector. Once the commitment is there the government might easily be able to increase this figure as planned.

Box 3: Results of Gender Sensitive National Policies

In one project in the central Philippine province of Capiz, ten women and two men built their own ferrocement rainwater tank. In another project, women built a 10,000 litre water tank over seven days using a manual which conveyed necessary information. After the engineer approved it the women were very proud, at the same time astounded that they could build a tank. "Now, they are saying, give us a manual on how to construct a house and we will" (Wakeman et al. 1996).

The above examples reinforce the argument that gender sensitive national policies can have a direct impact at the project level. Agreeing with this statement, Wakeman et al. (1996) note that, if gender issues are not considered at the policy level as part of overall sector policy, it is likely that they will not be considered at the project level either. Because the national and international policies are translated into action by various agencies, the lack of gender sensitivity within them can lead to bypassing gender issues while implementing projects. The following section thus reviews the experiences of various institutions and GAD practitioners on this matter.

2.2 Organisational Level

The literature on GAD emphasises that mainstreaming gender in organisational policies and practices is essential to bring equality between women and men. The literature also highlights that in order for the benefits of the development institutions to get down to the community level, including women, it is essential that the organisational atmosphere becomes gender

sensitive in all aspects. The experiences discussed here come mainly from local and international NGOs as there have been more studies done at the institutional level of these organisations than of government departments and local authorities. The areas where the service sector institutions (government, NGOs, INGOs etc.) need to take gender into consideration, as highlighted by the literature, are as follows: procedures for setting policies, rules, and norms; institutional goals, strategies and activities; organisational structure and staff facilities; organisational culture; provision for gender training; provision for adequate financial and appropriate human resources. Also discussed are the nature of obstacles for engendering an institution and the role of change agents, if any, in a given institution.

Procedures for setting policies, rules and norms: In any institution, the way in which it sets out its policies and rules is a strong basis to find out whether the institution is committed towards gender equality. If the institutional norms and procedures are formulated by involving both women and men taking into consideration the gender relations between them then the implementation of those norms can achieve gender equality. This mechanism ensures that the organisation has appreciated that women and men have different needs and concerns and hence, involving only one of them in the formulation of policies does not guarantee that the needs and concerns of the other group have been met. Otherwise, the chances of women being marginalised in the distribution of benefits will be high. For example, Bangladesh Rural Advancement Committee (BRAC), a leading NGO in the development sector, maintains a strong commitment to gender equity in its anti-poverty programmes, including an impressive rural credit programme. It has well over 700,000 members, of whom 70% are women; by 1995 women made up 85% of its total borrowers. A central goal of BRAC is the empowerment of the disadvantaged, particularly poor women (Rao and Stuart, 1997 and Goetz, 1997a).

However, as Goetz (1992) argues, even institutions such as BRAC, which have claimed themselves to be very gender sensitive, have been found to be weak while setting norms for people to participate in project benefits. For example, despite policy rhetoric claiming gender-egalitarian approaches in both state and non-governmental rural credit and income generating programmes in Bangladesh, studies have shown common and consistent gender differentials in project implementation. Fewer women than men are members of these programmes, but even where they form a majority, as in the Grameen Bank or BRAC, the credit they receive is

non-proportional to their representation as members. Individually, women receive credit in much smaller amounts than men, training is for low profit, sex-stereotyped activities, and unlike men, their programme membership may be made conditional on their acceptance of family planning measures. This could be due, in part, to the fact that the women staff turnover in BRAC is very high, with women occupying about 25% in 1991/92, 16% in 1993 and 20% in 1996 of the total staff and the majority being in low (field-based) positions with almost no opportunities to input to the policy formulation of BRAC; only four of BRAC's 20 senior managers are women (BRAC, 1997).

Hence, the DAC Sourcebook (1998) suggests that a key lesson from recent studies of equality initiatives within development co-operation agencies is that good development practices, such as clear planning, solid monitoring and reporting procedures, and consultation with target groups including both women and men will, at best, support the integration of equality objectives and, at the least, create an environment where the integration is more likely. It is important to understand the current norms and procedures of the organisation. It is also important to note whether or not there is sufficient flexibility to modify routines so that equality objectives can be better met.

Institutional goals, strategies and activities: Another area where the literature suggests that an organisation may be gender aware is in its overall development goals, areas of work and the strategies that it adopts to fulfil those activities and goals. Most policy-makers have the tendency to think that because their goals, areas of work and the strategies are gender neutral they can benefit both women and men equally. However, because they do not realise the contradiction in their objectives they do not benefit the two sexes equally in reality. For example, the institutions, on the one hand, claim to benefit people by providing them certain services but, on the other hand, they also expect the local people to make some contribution in cash or kind for those services without understanding the fact that women and men do not have the same level of access to and control over resources. As the DAC Sourcebook (1998) also mentions, many policy makers assume that their work is gender neutral and that it will have the same impact on all people. They do not see the overlap between their objectives (increasing crop yields, developing tax policy or building transportation infrastructure) and inequalities between women and men. Hence, the DAC Sourcebook (1998) suggests that

people working in a specific institution need to be aware of how and why equality concerns are relevant in their area of specialisation.

Macdonald (1994) also notes that project planning and implementation from a gender based perspective should have only one ultimate goal of contributing to changing the balance of the sexual division of labour and resources so as to make it more equitable. This goal applies to the various stages of the project cycle. Highlighting the importance of clarifying how the institutional objectives and strategies benefit women and men separately, some other authors (Macdonald et al. 1997) also argue that once an organisation has accepted a move towards gender sensitivity and gender equality, it should have an array of strategies that it can deploy to carry this aim forward. From the literature, the objectives such as shift in the gender division of labour, gender parity in staffing at all levels, and making the workplace and work style more women friendly, and strategies such as gender sensitive policies (programme, personnel, project etc.) have been found that an institution can develop to address the gender needs of both sexes at various levels, institution, project and community. Similarly, the literature also puts emphasis on issues such as upward/downward flow in policy formulation including both men and women, training on gender issues for all employees, allocating funds for gender/WID activities, and developing a positive organisational culture, etc. that need to be considered by an agency. GAD practitioners further argue that gender can be legitimised only by making gender awareness a strategic objective along with a commitment for training on gender analysis to all staff and ensuring adequate resources for gender work.

Organisational structure and staff facilities: The gender ratio between women and men employees and the types of work they are assigned is a strong indicator showing an organisation's willingness and commitment towards engendering itself. To understand the current situation and facilitate changes it is important to know who holds what position within the institution. Women are most often placed in jobs that are related with women's reproductive functions - either biological or social. As a result, institutional activities fail to address the genuine concerns of women and men in a given community. As Goetz (1992) points out, women bureaucrats are to be found most often in institutions in the service sectors such as nursing, community care, nursery and primary education, involved in activities often modelled on extension of women's domestic work. Further, unable to guarantee the same

quantity of time and emotional and physical energies to the organisation as men can, women are penalised by exclusion from promotional opportunities, if not by exclusion from the working world altogether. On the other hand, experiences have shown that in many institutions, gender-specific policy concerns such as child care, equal pay, maternity benefits etc., which determine the retention of women in the organisations, have been voiced mainly by women policy-makers.

Hence, the literature on institutional studies recommends to increase the number of women staff in general and in senior positions in particular, along with provision of a number of facilities that are necessary to retain them. For example, because of the high turnover among women staff, BRAC has introduced a policy of three months' maternity leave and six days' special leave a year for women. It has adapted the organisational culture to the participation of women, made efforts to increase women's presence in the organisation and their participation in decision-making, and facilitated their physical adjustments to the demands of the work place and their role within it (Rao and Stuart, 1997 and Goetz, 1997b). However, what is also important is that the institutions do not make just ad-hoc changes to address women's needs without paying attention to formalise those proposed changes. Otherwise, it can lead to many negative situations. As Macdonald et al. (1997) argue, if an organisation waits until one of its workers becomes pregnant before it works out a policy and procedures for maternity/paternity leave, it will probably already have lost valuable potential human resources in the women who will not apply for posts with it, because it has made no provision for its workers becoming pregnant. Alternatively, women working in the organisation may either avoid becoming pregnant until they are ready to leave, or leave if they become pregnant.

Gender training: The provision of gender training for people involved at all levels in an institution - policy-making, project, and working with communities - is another gender issue. Hence, many authors, based on their experiences of a number of organisations, suggest that training on gender should first be given to the people in senior positions so that the institutional objectives, strategies, policies, norms, procedures etc., which are all formulated by these people, can address gender concerns and inequalities. Similarly, the people implementing the projects should be provided training on gender sensitivity and awareness so that they can implement the projects with a good understanding of gender dynamics. And,

finally, provision should also be made for gender training to women and men in the project communities. Such training should include the cases where women have successfully built, maintained, and managed water supply systems as site caretakers, maintenance workers, construction workers, treasurers, committee members and chairs etc. (PROWESS/UNDP, 1988; SIDA, 1990; and Poluha et al. 1990 in Baden, 1993; IRC, 1991).

For women to participate in such training, whether it is on gender or other related topics, careful attention needs to be paid on the venue and the timing of the training so that they are convenient for women. As Hannan-Andersson (1990) and Baden (1993) confirm: "many have been by-passed in terms of human resource development in water supply and sanitation because of the timing and location of training and due to biases in selection of candidates. A carefully planned gender analysis, on the other hand, can help to understand the burden of women's activities, the kind of training programmes appropriate for women and men in the community, and the time they can spare to participate in the training. In order to be effective, training programmes should use a variety of methods to sustain the attention and involvement of participants". For example, in a five day training programme in Nepal organised for female sanitation volunteers, the methods included posters, non-directive questioning, short-walks in the locality, role plays, demonstrations, street theatre, puppet shows etc. These methods not only helped to attract more women to come to the training but also to retain them throughout the training period (Morgan, 1992 in Baden, 1993). Emphasising the importance of training, a report prepared by HMG/Nepal (1995) also states that "training must be held at a convenient time and place for local women, preferably away from their work-site activities (i.e. in a meeting hall or school house) and when they are not engaged in agricultural or domestic work. Women trainers should be employed for training at the grassroots level as much as possible".

Drawing on her experience with Oxfam and a number of other institutions May (1997) argues in discussing the importance of training on gender, that such training is very useful for all employees as well as for men and women from the project communities. It can build up confidence in all parties and help them realise the importance of each others' role in development efforts. However, she argues that gender training should not be seen as an end in itself. It is a necessary, but not sufficient, condition for making gender issues integral to the

work of an organisation, and must be backed up by policy, and procedures for implementation of that policy, and by clear management commitment. A one-off training course is unlikely to make sufficient impact. Further, the impact of the training depends upon the type of people that are trained, in terms of the power and authority that they have in the organisation, the credibility of the people providing the training, the venue where the training is conducted, and on the timing for the community, so that more women can participate. Finally, it is also essential to make a balance between two levels of capacity building; although it is vital to invest in the training of practitioners and policy-makers, this must not consume all the resources and leave the community further disempowered.

Organisational culture: While analysing the institutional aspects from a gender perspective, the literature on institutional studies puts emphasis to look at the culture of an organisation. As highlighted in the literature discussed below, the indicators of organisational culture that are relevant to gender are: understanding of gender of the women and men employees; conducive physical environment for women; men employees' attitudes towards women employees; opportunities provided to women to express their concerns/ideas; the extent of consultation that takes place between the management and the other employees, both women and men; the way staff greet each other; the career opportunities that both women and men employees have in the institution; the respect that is shown by the women and men employees on the institutional policies; etc. As the DAC Sourcebook (1998) comments, the informal and formal rules that guide the functioning of institutions are important. A policy that aims to change people's work priorities, to incorporate equality considerations, stands little chance of being effective if policy is generally not respected. The factors that might increase the likelihood of the successful integration of equality considerations include: flexibility and openness to new ideas in general, willingness to change and incorporate from diverse constituencies, accountability structures within the institution to ensure that staff comply with policy directions, and recognition and value given to a wide range of professional skills.

Informal norms that reflect the organisational culture determine whether the formal rules and procedures related to gender issues will be adopted. As Wakeman et al. (1996) note, if the employees are open they might be positive towards applying new ideas, but, if they are not,

they will be resistant to the testing of the new ideas. An organisation may have formal rules that promote gender issues, but in practice, informally, staff remain sceptical and discourage those who wish to work in this area. In such a situation, the pressure from the outside group can be very effective. For example, if the institution wants to be seen as credible or even as a leader in the field, its staff will start developing a positive organisational culture. In general, most development institutions are dominated by men. Hence, the working hours, facilities, norms for field visits etc., are all set as per the men's behaviour. Goetz (1997) observes that the everyday aspects of the way organisations structure their work are a feature of their culture; they will be reflected in performance criteria, rewarding people who flourish within the physical and social boundaries of the organisation. Supporting this argument, Rao and Stuart (1997), with their experience of research carried out with some profit corporations in the US, reveal that one set of characteristics and behaviour that was unconsciously valued in these organisations was heroism and the features that describe this are mostly in favour of men (Box 4).

Box 4: Heroism, A Common Culture in Development Agencies

In all institutions studied, someone who will stay at the office working for 24 hours when a report is due, who can respond to an emergency and solve the problem, is labelled as a "hero". His or her work is noticed, he/she is given a high profile, and feels valued and is promoted. On the other hand, skills such as preventing crises, building relationships, co-ordinating, thinking in advance, and helping things to move smoothly, where women have particular strengths, are all invisible. As a result, women do not see any space for them in such institutions and thus either they do not join, or they quit once they find another institution in which they feel more comfortable (Rao and Stuart, 1997).

In this regard, Chigudu (1997) also notes that an organisational culture helps to create standards of what is acceptable and what is not. In general, mainstream management models are patriarchal in nature, and eliminate respect for individuals, flexibility and differences. In comparison, a 'feminist' culture can be characterised as challenging the idea of patriarchal control. In this culture everybody would feel needed and respected, with their talents used and recognised. Macdonald et al. (1997) also support this perspective, as they write that every organisation should introduce a number of practical strategies that are friendly to women. Such strategies can involve reorganising working hours to allow workers to attend to family responsibilities, policies on maternity and paternity leave, childcare facilities on site, and planning which gives adequate notice of field trips. Though many organisations have already

given attention to some of these issues they are still, too often, on an ad hoc basis rather than as a part of institutional policy. This is very dangerous as it increases the chances of losing women staff.

Financial and human resources: In most development institutions, budgets for gender related activities are either nil or very small though they may talk about bringing gender equality between women and men. As a result, the institutions end up doing virtually nothing about addressing gender issues at any level. As Wakeman et al. (1996) note, resources are key to implementing policy. Without appropriate resources, little can be accomplished. Budgets for WID/GAD activities have often been small, notwithstanding rhetoric that might suggest otherwise. This kind of double standard can be seen even in international institutions like the UN which write and talk so much about gender equality. For example, the development agencies of the UN - the system which sponsored the Women's Decade (1976-85) - allocated just 0.2% of their overall budget to projects which benefit women. Similarly, less than one percent of FAO projects specify strategies to reach women farmers (Goetz, 1992). Such poor attention paid by international institutions in the upliftment of women leads to very poor services or no services at all for local women, when the projects are implemented in the recipient countries.

Further, from a review of the gender work in ACORD, a UK based NGO, Hadjipateras (1997) also reports a number of problems, including inadequate resources, that are inhibiting activities related to gender in the organisation. She concludes by saying that most of the problems observed during her review work are compounded by the lack of resources for the promotion of gender work. The two factors that she stresses for the implementation of an effective gender plan in ACORD are the need for strong commitment of its staff and provision of adequate resources. Macdonald et al. (1997) also emphasise, based on their experience of reviewing a number of Eurostep member agencies, that in order to create scope for gender-sensitive organisational development in any organisation, real support for change and dialogue about gender requires real resources, and budgeting is most often the point at which the rhetoric of equality is put to the test. Whether the management of an agency and its donors, if any, are prepared to commit sufficient funds and support for a long-term change

process in all organisational activities is key to the effective implementation of GAD activities in the institution.

Similarly, the human resources available to deal with WID/GAD issues are usually inadequate in many development institutions. As Wakeman et al. (1996) write, in many agencies most staff working on these issues are not regular agency staff but consultants, lacking the authority, access and continuity that regular staff have. WID/GAD positions have often been at a junior level. In this regard, the authors suggest that policy dialogue can be a way to promote GAD aspects of policies. Policy discussions between sector actors and between donors and partner governments, can provide occasions to raise GAD and other social issues. This can be an important opportunity for mainstreaming this topic within the sector. Conversely, if this subject is not raised during sector policy debates, it is likely that it will end up marginalised. Macdonald et al. (1997) also report the lack of responsible persons with adequate authority as one of the key factors for gender not receiving proper attention in many institutions. They further argue that, in many of the Eurostep member agencies which they reviewed, the people that were so called gender persons did not have real power to push on this matter in the organisation. As a result, the gender issue was not only sidelined in their own organisations but also in the institutions that they were funding. Hence, they recommend that if any institution is committed to gender activities it must nominate a senior person to take on this role and this person must have both the personal commitment and enough power to fight for it.

Hence, while addressing gender issues at the institutional level it is essential to determine the possible obstacles that might inhibit the introduction of gender on to the agenda or its receiving regular attention. In this regard, Macdonald et al. (1997) report five categories of obstacles which they found from their survey of a number of Eurostep member agencies. They are as follows: ignorance or misunderstanding of what gender is about, cultural resistance by partners and donors' reluctance to question that resistance, gaps between rhetoric and real practice, the slowness of change, and women with less power. Similarly, May in Fowler (1997) reports two categories of obstacles, covert and overt, to a gender fair organisational culture. The covert obstacles include: assuming that women are best for support roles, applying male norms for everyone, treating female authority as something to be

marginalised, disrespect for femininity etc. The overt obstacles include: too few women in positions of authority, tokenism where women are assigned mainly to administrative and secretarial jobs, defensive action for arguing that biases against women are an inviolable part of the culture, the majority of women in low paid positions, working hours and facilities not matching with the various roles that women play in the household and the office, etc.

Regarding the steps for overcoming those obstacles May in Fowler (1997) suggests the following: starting a process of diagnostic analysis, introducing frameworks and tools for gender analysis, identifying prejudices between men and women staff, developing a friendly organisational culture, introducing training, identifying outside allies who can support the direction of change, etc. Aside from these steps another useful strategy is to find staff with positive attitudes who can be instrumental in bringing about such changes. These people, known as change agents, will have different roles to play and different effects depending on where they are located and what kind of person they are. Macdonald et al. (1997) describe three types of change agents in an institution, the lone pioneer, the fighter, and the player. Depending on the gender status of the organisation, such as gender blind (the ones that reinforce biases in favour of existing gender relations and therefore tend to exclude women), gender aware (the ones which recognise both women and men as active partners and beneficiaries in the development process) or gender redistributive (the ones that intend to transform the existing power imbalances between women and men to more balanced relationship by focusing on strategic gender interests), these change agents can initiate different strategies. These might involve putting gender on the agenda by explaining facts and figures; holding arguments based on ideology and values; building planning, monitoring and evaluation systems, and mechanisms for learning and accountability; and promoting innovative practices. The authors further say that the change agents thus need to find people inside the organisation, and outside if necessary, with whom to work on building consensus around the issue. The people external to the organisation could be friendly consultants or trainers, but, they need to be people who know the organisation well.

Because the institutional policies and practices, as discussed above, are applied in projects by the people responsible for their planning and for their design, implementation, and operation

and maintenance, the following section presents the outcomes of such projects where gender issues were or were not considered in these various phases.

2.3 Project Level

The project level issues in the drinking water sector, as highlighted by the literature, emphasise that women together with men need to be involved in all stages of a project, for it to be effective in giving long term benefits to both women and men. Some literature also points out that women's involvement in the water sector can also give them more decision-making power in general, increase their income and enhance their social status - all related to the strategic gender interests of women. The following section discusses the experiences of women's participation in various water supply projects implemented in different parts of the world together with the procedures that need to be followed to increase their participation at various stages.

It is evident that women have considerable knowledge of existing water resources and potential problems associated with new facilities, and thus can be very effective in the identification of water sources and location of new facilities as experienced in projects implemented in Panama, the Philippines, Nyando plains in Africa and various other countries (INSTRAW, 1989a; IWTC, 1989; Davis et al. 1993; IRC, 1994). There is much evidence showing failure of water projects as a result of inconvenient design, poor location of facilities and ultimately their non-use when women are not consulted during the planning and preparation stages. On the other hand, women's involvement in the preparation phase could lead to better use of facilities as well as opening up new opportunities and activities to improve women's income (INSTRAW, 1989a in Baden, 1993; IRC, 1991; Mathew, 1991). From a survey of 18 randomly selected USAID water and sanitation projects Carloni (1987) also reports that a strong positive correlation was found between women's level of participation and the achievement of project objectives. Where women were involved, projects were highly effective; where they were not, projects failed to reach their objectives.

In particular, women's involvement is crucial in matters related to their own roles, knowledge and interests in relation to drinking water. Providing for adequate representation of women in village and higher-level committees can give women a greater say in decisions about

operations, management, financing, etc. There are a number of other examples of women's involvement in the planning stage leading to positive outcomes from the projects. For example, in Malawi, the Philippines and Tanzania, community consultation allowed women to help select reliable, gravity based water supply systems. In Burkina Faso, women were found to have information on the year-round reliability of traditional water sources, whereas village chiefs and elders lacked such knowledge (Fong et al. 1996). In Tonga also, a water and sanitation program was begun supposedly based on community development. However, only men participated and women were excluded even from the discussion, leading to poor results from the project. The later analysis of the cause revealed that in Tongan society, women are the real, traditional, decision-making power group. The project was then repeated, with women involved, and it then succeeded (IDRC, 1985). In Indonesia also, women were excluded from the planning of a water scheme but were involved in the implementation by providing labour. Here, too, the project did not meet its objectives as the design of the water supply system was unsuitable for the needs and cultural habits of the women (IDRC, 1985).

Field experiences accumulated from different parts of the world show that women are at least as capable as men in the implementation of water activities. One experience is of projects assisted by PROWWESS/UNDP (1990) and other donors, which demonstrates that rural women, with modest training combined with encouragement and technical support, can make a highly significant contribution to the sector. They have shown themselves capable of fulfilling intelligent and responsible roles in community level planning and management, including needs assessment, site selection, pump maintenance and fund-raising and have exercised intelligence and initiative to increase project effectiveness and to widen support at the local level. Thus, the concept of community participation in the programme is not complete unless rural women, along with their families, play a responsible role in both its planning and management. Similar experience is found in some villages in Zambia and Malawi (IRC, 1994). In Machakos, Kenya, also, women discussed with a local NGO about ways to solve their problems of water. They decided to harvest rain water to solve this problem. Women were given training on the construction of water tanks. In three years, about 3,000 tanks were built. When the funding ended, women initiated a process to collect funds and about 1,000 more tanks were built (IRC, 1994).

Despite women's skill and expertise, some other project experiences, however, show that women are usually involved only in carrying out monotonous work, such as digging and carrying stones, which does not require any training, while men usually get involved in technical activities which give them an opportunity to attend training programmes as well as to earn income. For example, in Lesotho, women do most of the digging in water projects while the skilled paid work is done by men. The same type of experience is reported from a project implemented in Honduras (IDRC, 1985), and another example is of Malawi, where women provide up to 70 percent of the labour in most of the piped water schemes implemented while the skilled work is again done by men (Mathew, 1991). Similar situations are found in slums and rural areas of the Caribbean, Latin America, Asia, and Africa. Often, the figures of authority are men, and women play crucial implementing roles (IDRC, 1985). Since these kinds of work do not help to change the existing gender relations and the power imbalance (strategic gender interests) between the women and men what is actually necessary is to give women training on construction skill so that it can offer them a potential source of income as well as self-esteem (Fong et al. 1996).

To bring women into the forefront of development and find out their needs, an appropriate process based on the understanding of the local socio-cultural aspects needs to be initiated. As van Wijk-Sijbesma (1985) and IRC (1991) note, the project, while initiating its work in a community, should manage to interview and discuss with both men and women, using both male and female staff as facilitators and focus the discussion with either of these two sexes depending on their knowledge and experience on the subject matter. These authors, along with some others (New ERA, 1991) argue that as women in developing countries, especially those from rural areas, do not in general speak in public in front of their husbands or even in the presence of other male relatives, the use of female personnel to interview women, hiring of local personnel, using qualitative research techniques such as PRA, which includes semi-structured and/or open interviews, mapping, informal discussions, and focus group sessions, can be of great help. Depending on the local context, separate meetings can also be held with women where women feel liberated for freer discussion. They can also be contacted through elderly women, existing women's groups or mother's clubs, or NGOs, male leaders, community health and education workers, local educated women like school teachers, etc. In

joint meetings, culturally appropriate seating arrangements can ensure that women are not forced to sit at the back, making it difficult for them to hear or speak out. Meetings need to be held at a time and in a place suitable to both men and women: for example not at the time when the main meal of the day is being cooked. Women should be given nearly half the seats including one of the positions of chairperson or vice-chairperson in local water users committees (WUCs). These points are made by numerous authors including Fong et al. (1996), van Wijk-Sijbesma (1985), and Kivela (1985), Kerr (1990), and Grady et al. (1991) in Baden (1993).

To increase women's participation in meetings at any stage, it is essential to ensure that project information reaches them, they are invited in all meetings, and they regularly attend those meetings. The use of techniques like models, drawings, photos (van Wijk-Sijbesma, 1985), personal contacts, puppet shows, advertisement, open discussion, conducting meetings in vernacular language (IRC, 1991) can facilitate women's participation in meetings. From the very first meeting it is important to create a participatory environment where men and women could decide themselves what they want to do in their community and how it should be done. If they feel that a project is leading them towards a particular action or response then they will never feel that the project is theirs.

In the operation and maintenance of a water project also, there are adequate experiences showing women's involvement. A study of the performance of women hand pump caretakers in Bangladesh concluded that after 15 months of maintenance by women, the condition of the pumps was found to be as good as that of the pumps maintained by trained project mechanics (Bilqis et al. 1991 in Baden, 1993). Fong et al. (1996) also report many experiences of women's active participation in operation and maintenance of water supplies (Box 5).

Box 5: Women in Operation and Maintenance of Water Supplies

In Botswana, women have performed as successfully as men in the capacity of diesel pump operators; in Bolivia, as caretakers; and in Angola, as source monitors. In Malawi, water tap committees composed mainly of women have been organised. They use the pipeline routes as paths and report the leakage to the village caretaker. In Samoa, while women weave mats in open-walled watch houses, they keep watch over village bathing and drinking water sources and ensure their proper use. In Tanzania, women have chosen a site attendant from a nearby household and maintained rosters for site upkeep and preventive maintenance (Fong et al. (1996).

On the contrary, a water project may not be as effective as it should have been if women are not involved in its operation and maintenance aspects. One case that is worth highlighting concerns a project in South India (Mathew, 1991) where a village level maintenance scheme for hand pumps on deep wells was initiated. Two years after the project began, 620 young men had been trained as caretakers. However, problems resulted because the women did not know who the caretakers were, and as the young men themselves did not collect water they did not know when there were problems to sort out. In situations where the project has relied more on external resources, the projects have failed in sustaining benefits as the local people, especially women, are not capable of repairing and maintaining the system due to their unfamiliarity with it.

On the other hand, the use of local resources with some training to women on the proper use of the system can make the project effective. It is thus quite common to see the recent water supply projects designed with greater emphasis on women's involvement (van Wijk-Sijbesma, 1985; Mathew, 1991; UNDP/PROWWESS, 1990; IRC, 1992; IRC, 1994; INSTRAW News, 1997; FEMCONSULT, 1998) though the outcomes of such projects have not been studied in greater detail. Handpump maintenance by women appears, in general, to be acceptable to men although the confidence of male family members and community leaders has to be won (van Wijk-Sijbesma, 1985; Hannan-Andersson, 1990; IRC, 1991; Mathew, 1991).

Similarly, experiences have proven that women are also more capable of collecting money for maintenance of hand pumps than men. For example, in Niger, a village water supply programme started a campaign to collect financial contributions to cover the maintenance costs of hand pumps. In most villages, water committees appointed men as treasurers. However, some villagers were unwilling to pay and encouraged others to discontinue payments. In other villages, the contributions raised were managed improperly. Where women worked as treasurers, they managed their duties satisfactorily. Based on this experience, in several cases, villagers suggested that women should be treasurers (Fong et al. 1996; IRC, 1994). As the caretakers, women have been particularly active in financial aspects of water projects such as fund raising, fee collecting, fund keeping, etc., because of their perceived willingness and dependability in these roles (Baden, 1993). Once they are given an

important task in the water committee, they tend to feel more responsible toward the community. Also, they will not so easily move away or disappear when something goes wrong, as men tend to do. Moreover, men are usually ashamed to ask for a loan from a woman (IRC, 1994). One experience from Indonesia is worth reporting here, where women, because of their success in raising funds to build latrines and rainwater catchment tanks, now take more key-positions in water committees and increase their influence over decision-making (Appleton and Evans, 1993 in IRC, 1994).

One other issue that is highlighted by many authors, and needs to be taken into account in the operation and maintenance stage is that most project implementers usually decide themselves the rate of water fees without understanding the existing gender roles and relations. This situation always leaves the burden of payment on women as, because women collect water and look after latrines, they are normally asked by men to pay for their use. As women usually have no access to income to pay for the new facilities which are used by all in their households, it is very likely that they will lack interest towards the project after some time and eventually turn back to their old unhygienic water supply systems (Hoffman, 1990 and Evans, 1992 in Baden 1993; van Wijk-Sijbesma, 1985; Baden, 1993; van Wijk-Sijbesma, 1998).

For example, in Tanzania and Haiti, women appeared willing to pay considerably more than men for access to public taps; however, in Nigeria and India, they were not prepared to pay as much (Green and Baden, 1994b). One important point is that women's willingness to pay may not match their ability to pay, due to their lack of access to cash and men's lack of interest to give significant support in this sector, which they think is women's responsibility. In this regard, Bolt (1994) recommends that project personnel should analyse household income and expenditures with community members and decide jointly who is going to pay for the operation and maintenance of the water pumps, wells or latrines. This will then require involving women in the initial stage and making them clear about their roles and responsibilities. As Melchior (1989) and Wakeman (1995) state, if women's demand and willingness to pay for a particular type of water system is not assessed, a system may be installed that women cannot pay for and will not use. The system may then fall into disuse or poor maintenance. One way of overcoming such problems is to introduce some alternative

activities which can increase income for women from their saved time so that they will have no difficulty to pay for the services, though the responsibility of paying for it is not theirs alone and men must be equally involved in this process.

Regarding women's participation in the monitoring and evaluation of a water supply project the limited literature available in this regard suggests that because women visit the waterpoints daily and note the problems before men, it may be appropriate that women should take the role of record keeping and reporting on waterpoints, as they want to see the problems resolved quickly. The monitoring and evaluation of a water project can be done in a gender sensitive way through internal evaluations on whether women are participating in all project activities, their level of participation, their access to and control over benefits, their control over decision-making, their participation in other income-generating activities, etc. Also to be considered are the skill and confidence they have acquired, the status they have built up in the community, their access to information and contact with authorities or institutions, and ability to form women's groups (GTZ, 1989 and ADB, 1990 in Baden, 1993; Hannan-Andersson, 1990; IRC, 1991).

Finally, the following section presents the outcome of considering gender issues at various levels of the drinking water sector so that it can have positive effects in meeting women's strategic gender interests (women's empowerment) at the community level.

2.4 Community Level

This section attempts to highlight why water supply projects need to be gender sensitive so that they can increase women's status, confidence and bargaining power, which all help in improving the existing gender relations between women and men. However, it needs to be mentioned here that the discussion presented here is based on limited sources of information due to lack of literature addressing these issues in the context of water supply.

There is no doubt about the important role that women play in the drinking water sector. They are the primary users as well as managers of water resources; they take care of the health of all family members, especially children; and they are responsible for managing any kitchen gardening that may become possible as a result of the improved water supply. Thus, they

have every right to get involved in the water supply project activities, not only because of these roles, but also as the citizens who constitute half the population everywhere. As Simpson-Hebert (1989) argues, women need to be involved in development related to water supply so that they are the beneficiaries not only of the improved water supply but also of the new training and skills, and the new economic opportunities that development projects often offer.

Many project experiences, as discussed in the preceding section, and some others (INSTRAW News, 1997; Fong et al. 1996; FEMCONSULT, 1998) confirm that if women are not involved in the project activities they cannot provide the benefits to the people in the community as intended, which means women suffer the most as they are supposed to fulfil the household needs for water.

In spite of the positive effects that women's involvement can yield at the individual, household and community level there are certain obstacles which prohibit their participation in project activities. Such obstacles are men's low opinion of women's capabilities, women's low opinion of themselves, women's shyness about coming out to participate and women's inability to speak in public and take on leadership roles. In all these obstacles men's attitude towards women plays a key role. Because men in many cultures, consider that women are responsible for activities inside the home while men are responsible for activities outside the home, they want to maintain the same traditional roles in the water sector as well.

For example, the task of collecting water, regardless of the availability of improved water services near the homes, has always been assigned to women (New ERA, 1997; CMS, 1996) while men always prefer to get involved in other activities that give them direct income (Shtrii Shakti, 1995). Further, men always want to take the role of well sinkers, latrine builders, and pump installers, which all give high status as well as income, while they want to leave the unskilled and unpaid positions, such as cleaning the water source, attending the health training, educating the fellow-women on hygiene and sanitation etc. for women (Davis et al. 1993; IRC, 1994). All the activities allocated to women are based on traditional gender division of labour that always treats women as inferior to men. This implies that much more needs to be done by drinking water projects for women's strategic involvement in the sector.

Involving women in the water supply activities can also help them to initiate some other productive activities such as kitchen gardening, livestock raising, cash crop growing etc. to raise their income, which is a strong indicator of women's higher status in the household and the community (Simpson-Hebert, 1989). The author further argues, the availability of water nearer to the home can also have positive effects on the nutritional status of the family as women can grow fruits and vegetables in their kitchen garden; the consumption of such food items can enhance the nutritional quality of the diet of their family members, especially children.

Moreover, because women are the permanent residents of the households and responsible for the running of the family they are the best persons to give information about genuine needs related to water supply activities, such as the need of a tube-well or a latrine in a household and the community. As Simpson-Hebert (1989) notes, women face difficulty if the water source is far; they cannot pass their urine as easily as men can do in the open; and, as Curtis (1986) argues, women are expected to fulfil the household need for water regardless of their physical condition, despite the fact that carrying water long distances may affect pregnancy outcomes, infant survival and even maternal mortality rates. These examples prove that women are more affected by a water project than men. Hence, if a water project is indeed concerned to provide long term benefits to the people in a community they should, at any cost, involve women, together with men, while designing and planning the project activities.

The strategic involvement of women also increases community women's status as they get opportunities to participate in meetings, attend training programmes, gain knowledge on technical aspects like tube-well/tap-stand repair, etc. Since this kind of strategic involvement can increase the possibility of increased income in the future, it can lead to women's higher status both in the household and the community. As Simpson-Hebert (1989) argues, studies of women's status all over the world show that as women earn higher incomes, so their status is increased in the family and the community.

In order to receive these benefits of women's strategic involvement in water supply projects, the literature suggests two main factors to be taken into consideration at the community level while initiating the projects. First, the project implementers should follow appropriate channels to

contact the local women. Such channels could be various such as contacting the local chiefs and elders, elderly women, school teachers etc. Second, the project personnel should ensure that the local men are not bypassed in the process. As IRC (1994) and Ball (1991) note, even though the local men might have only a little understanding of the water issues they need to be given due consideration, otherwise they may go against the project and sabotage it. As the first point of contact, men like to be fully and constantly informed and consulted while implementing activities focused mainly on women in the community. There are many examples of cases of success and failure depending on the extent of support women received from men (IWTC, 1982; Kivela, 1985; Narrowe, 1989; ADB, 1990; and Hoffman, 1992 - all in Baden, 1993; van Wijk-Sijbesma, 1985; IRC, 1992).

2.5 Water Supply Situation in Nepal

This section presents the role of Nepali government and the role of Nepalese women in rural water supplies so as to explain the background of the research topic in the country where this research was carried out.

2.5.1 The Role of Government in Rural Water Supplies in Nepal

Nepal, being in the slope of Himalaya, is naturally endowed with an abundance of water resources. The total run-off volume of the rivers is estimated to be around 20 million hectare metre. Yet, the water resources of Nepal have not been fully utilised and exploited to their fullest extent. For example, in 1992-93, out of 2,323 thousand hectares of arable land only 882 thousand hectares (37.96%) were irrigated and a total of 140,560 thousand litres of improved drinking water were provided daily to 1,109 thousand people out of 20 million of population in the country (Khadka, 1997). This all indicates that much more needs to be done in utilising the available water resources for the people of Nepal. In Nepal, the traditional drinking water sources are ponds, streams, rivers, springs, stone spouts and wells. However, depending upon origin, many of the surface and spring sources vary considerably in yield and many dry up in the pre-monsoon period. It was only in 1895 that the first piped water supply systems were initiated in the Kathmandu valley to serve the urban population. The need for rural piped water supplies was recognised only in the Third Development Plan (1965-70). The responsibility for water supply and sanitation was then given to the Department of

Irrigation created in 1966. However, as this Department could not attend to this matter well, a separate agency by the name of Department of Water Supply and Sewerage (DWSS) was created in 1972 to take up responsibility for this sector. In 1971, the Local Development Department (LDD) of the Ministry of Home Panchayat, with a mandate to undertake small self-help development projects, embarked on a plan of implementing small water supply schemes in communities willing to provide voluntary labour. This work continued with the addition of a shallow tube-well programme in the Tarai after the Department was upgraded to the status of a Ministry of Panchayat and Local Development (MPLD) in the early 1980s.

The population with access to piped water supply remained very low until 1980, with only 2% of the rural population having access to this facility by the end of the Fourth Development Plan (1970-75) and 7% by the end of the Fifth Development Plan (1975-80). In response to the campaign of the IDWSSD to draw up a decade plan for providing drinking water supplies and sanitation to its population, the Government of Nepal prepared a plan covering the period from 1981 to 1990, corresponding with the Sixth (1980-85) and the Seventh Development Plan (1985-90) periods. A review of the performance of this sector during the decade showed that a total of 5.93 million population in the rural areas were served with piped water supplies as against the target of 11.83 million population. The population served during the decade plan was 38% as against 69%, the target for the entire country. The reasons for this poor performance were reported to be: poor organisational, managerial and environmental aspects which mainly included low community involvement, inappropriate project implementation procedures and mobilisation of local resources, poor operation and maintenance systems, and a lack of co-ordination among sector organisations (New ERA, 1990).

Realising these limitations and having made a commitment to provide the entire Nepalese population with safe drinking water, one of the basic needs, by the end of 2000, a separate Ministry of Housing and Physical Planning (MHPP) was established in 1988, and the DWSS was included under this Ministry. Since the DWSS was made the lead agency in the sector and thus responsible for drinking water supply and sanitation, it was strengthened and reorganised, and all the sector activities conducted previously under LDD were transferred to it. According to the Decentralisation Act of 1982, the DWSS has been made responsible for

providing any necessary technical support services to its district offices for the implementation of rural water supply schemes (New ERA, 1990).

Taking into consideration the drawbacks of the Seventh Development Plan, the Eighth Development Plan (1992-97) aimed to provide drinking water to 72% of the population by the end of 1997. However, the water supply coverage achieved by the end of 1996/97 has been estimated to be 61% of the total population with the figure for the rural and urban areas being 61% and 62% respectively. To improve the situation, the Ninth Development Plan (1997-2002) has a target of providing access to piped or protected water facilities for 100% of the Nepalese population (HMG/Nepal, 1998a) though this target seems somewhat ambitious given the past performances. Since women's mobilisation is instrumental in realising this target, the following section presents the history of Nepalese women's role in this sector.

2.5.2 The Role of Women in Rural Water Supplies in Nepal

Women in Nepal, whether urban or rural, have traditionally been viewed as the basic managers of water systems. Women and girls in all regions of Nepal are deeply entrenched in water-related activities that revolve around their daily household activities. Women and children, especially girls in rural communities, often have to walk for miles to collect water. When the taps run dry or water is scarce, it is women who bear the brunt of the difficulties (New ERA, 1991). Many other studies have also shown that since women in Nepal are the predominant managers and users of domestic water their involvement in the planning and management of water supply programmes can greatly improve the sustainability of the resulting system (CMS, 1996; New ERA, 1997; Mustanoja, 1998). The New ERA (1991) study also notes that decisions about how much water to use, from which source, and for what purposes, are critical in controlling almost 80% of the diseases commonly causing mortality and morbidity among infants in Nepal. The study further reports that these decisions are subject to influence by learned behaviour and largely fall to women because of their responsibilities for household management and child care.

These important roles of women in water supply in Nepal were mainly realised since 1985, the time when UNICEF was supporting the LDD, in executing the Community Water Supply and Sanitation Schemes (CWSS), with local community involvement in their preparation,

construction, and operation and maintenance (New ERA, 1991). This realisation can be attributed to the appreciation of women's role that formally took place at the international level in 1982, the beginning of the IDWSSD. Accordingly, some institutions in Nepal also officially appreciated that women's involvement can increase the effectiveness of the water system, improve women's status and considerably help to assure the continued benefits of the system to the whole user community and thus, started involving women formally in the management of water projects. They are: Helvetas, a Swiss government funded institution, in 1985, UNICEF in 1986, and Nepal Red Cross Society (NRCS) in 1989.

Helvetas began its Women Involvement Programme in the Western Region in 1985 with a Woman Development Officer (WDO), a few women workers and a part-time expatriate adviser. The programme goals were to educate women on hygiene and sanitation, to strengthen their position in society and to develop their self-confidence to publicly voice their views on water supply. Formal "involvement" is the keyword of this approach whereby local women trained by the women's team were made to be gradually involved in planning and decision-making relating to water and sanitation issues. Local water users committees (WUCs) were formed including two women; this was the first event of women's formal inclusion in water management in Nepal. The idea was to train these women on issues related to health, sanitation and water supply systems and to spread the knowledge through them to fellow women and consolidate the learned behaviour in their daily lives. These women were then expected to become responsible on a voluntary basis for the activities in the village after handing over of the programme to them (New ERA, 1991). This approach is being continued in all water supplies designed and implemented after 1991.

UNICEF assisted a Women Involvement and Sanitation Programme (WISP) carried out as a pilot activity in Chaurjhari in Rukum district in the Mid-Western Development Region of Nepal in 1986. This programme was later extended to Dolakha district in the Central Region in 1988 and Ilam and Makwanpur districts in the Eastern and Central Region respectively in 1989. The objectives of this programme were similar to those of Helvetas i.e., to train representative women from each tap-stand community, through them to spread the health message to a larger body of women to improve the health of the rural population, to improve the quality and the effectiveness of the gravity flow water supply system and to strengthen the

social status of women in the community. This approach was developed with the conviction that women could not voice their needs because of the lack of self-awareness, self-esteem and self-respect, and their excessive respect towards men. Hence, the key concept in this approach is awareness building about one's own capabilities through organised training that disseminates information, helps women develop their own ideas and encourages them to express opinions about water issues without being shy in public (New ERA, 1991).

Though UNICEF/Nepal had been quite concerned about women's active involvement in its water supply projects it has stopped its investment in the water supply sector since 1997. The current approach has rather been to complement the water projects implemented by other NGOs, INGOs and government through health and hygiene activities. Though integrating gender into all its programmes has always been UNICEF's major concern the focus until now has been only in meeting practical needs of people in a community. However, since its ultimate goal is gender equality and women's empowerment it is in course of preparing a 'Gender Mainstreaming Guide' both at the Headquarters and the country level (based on personal interview).

Becoming more aware of diseases spread through contaminated water the NRCS started to work on the water sector (with tube-wells in the beginning) in 1983. The NRCS included women workers in its sanitation programme and has been assigning female Village Health Leaders (VHLs) since 1989. These female VHLs, together with their male counterparts, are given one month training on primary health care and assigned to work in a Village Development Committee (VDC) to implement a health programme which focuses on oral rehydration therapy (ORT), immunisation, sanitation, nutrition and growth monitoring (New ERA, 1991).

An Evaluation Study carried out by New ERA (1991) in some of the communities of the UNICEF, Helvetas and NRCS programmes concludes that women's involvement in the programme can lead to many positive changes as presented in Box 6. The study also concluded that the lack of interest shown by the DWSS toward WISP, the lack of national policy on sanitation leading to poor co-ordination among various agencies working on sanitation related issues, the lack of emphasis in linking water and sanitation through the

education and involvement of women, and the lack of incentives provided to women volunteers who are supposed to carry out the programme after the women workers leave the area, are some factors affecting the WISP.

Box 6: Benefits of Women's Involvement in Water Supplies

An evaluation study carried out by New ERA reports that women's involvement in water supplies has created a positive change in the general status of women, assured the protection of water sources and the areas surrounding them, led more and more people to use latrines, and reduced the incidence of diarrhoeal diseases among infants and children. The study further concludes that though it appears that the provision of women workers and the training of women volunteers and women committee members requires an additional cost the support of women in the long term upkeep and maintenance of the water supply systems will greatly increase the life of the water system as well as improve the health and quality of village life (New ERA, 1991).

The need for women's involvement in the drinking water sector, at the government level, was, realised only in 1989 when the MHPP initiated a policy guideline and directive which was later revised in 1991. This policy called for involving user groups including women at all stages of water supply schemes including need identification, planning and construction (Bajracharya et al. 1997). The ADB, the major donor in the water sector in Nepal, has been funding work in this sector since 1985. According to an evaluation carried out by Bajracharya et al. (1997), though community involvement was emphasised both in the documentation for the first project (1985-1993) and for the second project (1989-1995), real community involvement, along with some involvement of women, was achieved only in the third project (1992-1997). The project documents of the fourth project (1997-2001), appear to be more concerned in terms of soliciting women's participation in various project activities.

The other recently established agency with exclusive focus on water supply and sanitation - Rural Water Supply and Sanitation Fund Board (RWSSFB), under an agreement between the Government of Nepal and the World Bank - also has its focus on women. This agency, which aims to benefit 550,000 population from 900 communities in a period of 5 years (1997-2002), has a budget of Rs. 1,206,000,000 (10.96 million Sterling Pounds), of which 86% is from loan support of World Bank, 3% is from the government of Nepal and 11% is from contributions from the communities. One of the major activities of this agency includes women's technical services and informal education in water supply and sanitation. The impact of this agency in changing women's lives is yet to be seen.

2.6 Summary

The discussion presented in this chapter shows that the demand for water supply in the developing countries is rapidly growing due to inability of the governments in designing projects that best meet people's needs and concerns. The lack of adequate safe and clean drinking water is directly affecting the lives of human beings causing almost 80% of the sicknesses seen to date. Since women manage the water supplies and take care of the family members, it was appreciated during the 1980s that without their involvement these issues cannot be tackled though this appreciation was concerned more with meeting people's practical needs and not with women's strategic gender interests. One bias that was already seen among the international agencies engaged in the water sector at that time, perhaps due to the presence of more men in the sector, was that though the role of women in water supply was already emphasised by the UN Conference on Women in 1975 this issue was taken more seriously only in 1982. In any case, the IDWSSD identified lack of meaningful participation of women in water supplies as one major reason for the failure of projects in giving long term benefits to the people. By the end of the decade it was also realised that their meaningful involvement in project activities can lead to their wider economic and social development.

Accordingly, the Dublin principles, which guide the present water supply sector, also emphasise women's participation as one major component for the effectiveness of the sector. However, the other policy, which emphasises that water should be treated as an economic good, is contradictory to the principle of women's involvement since it distances women from water supplies, due to their inability to meet the capital as well as the operation costs, which is expected more of them, due to their traditional role in water supplies. Experiences have shown that poor rural women in a country like Nepal do not have access to and control over resources to meet the water costs and thus cannot benefit much from the improved water services that are guided by such contradictory policies. Longwe (1995) points out that the policies, which have been formulated without taking into account the needs, problems and concerns of women, and thus, fail to benefit them when they are implemented, only pay lip-service to women's real interests even though they are said to be in favour of women. On the other hand, experiences have shown that inclusion of gender issues in the national policies can yield better project results.

The factors that determine the strategic involvement of community women in water supply projects also need to be seen at the institutional level as this is where all institutional policies and practices are developed. A review of the experiences of various institutions from other sectors which have tried to incorporate GAD activities into their work shows that, because gender is a cross-cutting issue, it needs to be rooted not just in one component or at one level, but everywhere in a development organisation. A review of the literature on institutional aspects highlights some important areas where gender needs to be considered for engendering an institution. They are: the objectives/goals/vision of the institution; the structure of the institution (gender balance in staffing, at different levels and in various works, technical and non-technical); staff's participation in policy formulation; staff facilities, especially those which help to attract and retain women; provision for gender training, for all, at all levels; existence of a people-friendly, especially women-friendly, organisational culture; and provision for human and capital resources for GAD activities. The factors that constrain the institution in addressing gender issues in these areas need to be identified and steps taken to resolve them. Finding out whether there are people who wish to bring changes in these areas in the institution can help in this process.

At the project level also, accumulated experiences from various parts of the world show that those projects which have found ways to effectively involve women at different stages - planning, design, implementation, and monitoring and evaluation - have been more effective in meeting both women's and men's genuine needs as compared to those projects which have not. Finally, at the community level, it is being argued that the improved water services can give women opportunities for gaining new skills and knowledge, and can save their time for other productive activities including kitchen gardening which can yield income as well as improve the nutritional status of the family members. What is not, however, clearly known at present is the extent and effectiveness of women's participation in decision-making and not just in attending meetings and in contributing their labour for project activities. There is also lack of information on projects' attempts to change the existing gender division of labour (especially men's involvement in women's traditional activities), to increase women's bargaining power by increasing their access to and control over resources, or to change women's status and its impact in the household and the community, all of which are

instrumental in changing the existing gender relations and bringing gender equality in the community.

To bring gender equality, a strong indicator of sustainable social development, the existing local socio-cultural factors have to be understood and projects need to address these issues if they restrict women's participation in their activities. For example, the review of literature on women's participation in water supplies, anywhere in the world including Nepal, shows that though women are being gradually more involved than in the past, their involvement is mainly limited to health and hygiene related activities. From whatever information is available at present, one major reason, for women to lag behind men, appears to be patriarchy, which promotes a system of male domination and superiority, and male control, and on the other hand, restricts women's physical movement and curtails and controls women's sexual freedom. As Bhasin (1993) argues, patriarchy which reinforces one's attitude that men are superior and women inferior, is one main reason for women to be disadvantaged in all spheres.

With all this background information, that highlights the need for considering gender issues at various levels - international to community - for the water sector to be effective in meeting women's and men's genuine needs and concerns, Chapters 5, 6 and 7 discuss the extent to which these gender issues have been addressed in the water sector by the institutions selected for this research in Nepal. Based on the information presented in this chapter and the analysis made in Chapters 5 and 6, an attempt has been made in Chapter 7 to demonstrate why meeting strategic gender interests (women's empowerment) at the community level is essential in the drinking water sector not only for the water projects to be effective in giving continued benefits to women and men but also for the development of a society with greater balance of power and gender equality between them. The next two chapters, 3 and 4, present the conceptual framework and research methods followed in this research.

3. CONCEPTUAL FRAMEWORK

Chapter 2 presented some gender issues prevalent at various levels - international to community - in the drinking water sector. This information became the basis to identify the areas in which this research needed to collect information and to develop checklists for this purpose. The main focus of this chapter is on the conceptual framework followed to analyse the information collected by this research. The discussions on the chosen framework begin with a review of the existing gender and development (GAD) frameworks followed by some arguments for the need of some modifications in these frameworks. The discussions on the chosen framework are helpful not only for the analysis of the collected information but also for a better focus on the information to be collected from the field-work.

3.1 Introduction to the Current GAD Frameworks

Because this research falls under the GAD sector, it is presumed that a GAD approach can best guide this research in terms of collecting the information required for this research as well as in analysing the collected information. The GAD approach emerged in the 1980s as an alternative to the earlier women in development (WID) approach. As March et al. (1999) describe, 'the WID aims to include women in development projects in order to make them more efficient while the GAD aims to address inequalities in women's and men's social roles in relation to development'. Moser (1989) is of the opinion that the GAD approach tries to link the productive and reproductive roles presuming that the social construction of these two roles is the basis of women's oppression. Moser further says that the gender issue emerged because the problems of women were attributed to biological differences between women and men rather than the social relationship between those two sexes which made women subordinate to men. Gender should, therefore, be understood as a system of socially ascribed roles and relationships between men and women, which are determined not by biology but by social, political and economic context. Seed (1991) adds to this by saying that gender roles are learned and they can change over time. It is the analysis of these roles and relationships which shows the imbalance in power, wealth, workload etc., between women and men, and it is this analysis which may then lead to the possibility and necessity of change.

Given the argument of the GAD practitioners that any development activity such as water supply, should be taken as an entry point for the improvement of women's condition, both practically and strategically, and that this objective falls within the scope of the GAD approach, it became obvious that the GAD approach should be followed in this research. However, it was more difficult to make a decision about which of the currently available GAD frameworks suggested for gender planning and gender analysis - for example, the Harvard Analytical Framework, Moser Framework, Gender Analysis Matrix (GAM), Empowerment (Longwe) Framework and Social Relations Approach - should be adopted in this research since there exists lots of debate about the potential uses and the limitations of these frameworks. Hence the first task that was carried out was a review of these frameworks to make a decision about which, one or more, of them could be used or adapted for use in this research. This review was also necessary to develop ideas for proposing a new framework if in case the existing frameworks could not be found appropriate for use without some modifications in this research. The introduction of the various GAD frameworks along with their potential uses and limitations presented in this section, comes mainly from the following authors, March et al. (1999), Moser (1989 and 1993), Longwe (1991), and Kabeer (1994a) and from the researcher's own understanding of these frameworks.

It is also essential to mention here that there are a few other GAD frameworks such as People-Oriented Planning Framework and Capacities and Vulnerabilities Analysis Framework suggested for gender planning and analysis. However, because these frameworks have been suggested mainly for planning and analysing refugee and vulnerability situations, which is not, however, the case in this research, they have not been discussed here. A brief discussion of the other frameworks, which have been commonly used in the GAD sector, is as follows:

Harvard Analytical Framework: This framework, published in 1985, was developed by researchers at the Harvard Institute for International Development, USA. This is one of the first GAD frameworks proposed for gender analysis. This framework has four main components namely, The Activity Profile, The Access and Control Profile, Influencing Factors, and Checklist for Project-Cycle Analysis (March, 1999). The users of this framework claim that it is simple, practical and easy to use for data collection and analysis at the micro-level. The other positive aspects of this framework are that it gives a clear picture of the gender division of

labour between women and men and their access to and control over various resources. This framework is considered to be gender-neutral and thus non-threatening even to adapt in societies dominated by patriarchy, such as that in Nepal. This framework has been strongly recommended for use in conjunction with Moser's framework.

On the other hand, the critics of this framework argue that it is more concerned with increasing efficiency of development projects rather than addressing the issues of inequality and imbalance in power relations between women and men and their reasons. This framework has also been criticised for reasons such as its lack of focus on women's and men's roles in community activities, who should participate in the data collection process and finding out the complexities with regard to the issue of women's access to and control over resources due to its over reliance on a 'tick-the-box' approach.

Moser Framework: Caroline Moser developed this framework initially for gender analysis and later with further emphasis on gender policy and planning as a challenge to the dominant WID approach in the early 1980s, when she was with the Development Planning Unit at the University of London, UK. This framework has three main components: women's triple role, practical and strategic gender needs and categories of WID/GAD policy approaches (Moser, 1989 and 1993). Those in favour of this framework claim that it is user-friendly, action-oriented and suitable for determining the project impact at the community level through a practical and strategic gender needs approach. The framework also answers why project results are positive or negative so that the planners can understand the whole project picture easily and can act accordingly. The other positive sides of this framework are its emphasis on women's empowerment by addressing the issue of inequalities and imbalance power relations between women and men, and its focus on practical and strategic gender needs which can lead to improving gender relations and sustenance of practical benefits in a community. This framework has also been appreciated for its coverage of productive, reproductive and community roles of women and men, which gives a clear picture of the gender roles in the community. This framework is recommended for use in conjunction with Harvard Analytical Framework.

However, the criticisms of the Moser framework are that it does not give much emphasis to inequalities caused by caste, class, race etc. and its focus on needs may lead to top down planning. The other criticisms are that it is more concerned with women's strategic gender needs and not with men's strategic gender needs, which might invite resistance from men to researchers' or agencies' work, and it can also invite resistance from people working in an agency if the agency's goal is not the emancipation of women from subordination. Similarly, this framework has also been criticised for reasons such as the consideration that the division between the practical and strategic gender needs is artificial as there is a continuum between these two, and the framework is more focused on finding out women's and men's activities rather than the interrelationships between them, which govern how decisions are made. Kabeer (1994a in March, 1999) further argues that the Moser framework is also not clear, in its community role concept, as to whether this refers to production of a third type of resource or how the labour is organised (individually or collectively).

Women's Empowerment (Longwe) Framework: This framework, developed by Sara Hlupekile Longwe (1991), claims that empowerment of women will arise by bringing them into an equal position to that of men so that they can participate in the development process and have control over resources which is equal to that of men. At the heart of this framework is the idea of five hierarchical levels of equality - welfare, access, conscientisation, participation and control. As women's position moves forward from welfare to control, the higher is their equality with men, indicating their higher empowerment. Longwe's framework is considered to have much in common with Moser's framework of practical and strategic gender needs but, it moves one step ahead of the Moser framework in that it treats the move from practical to strategic gender needs as a progression of women's empowerment. The supporters of this framework claim that it is a useful tool for planning, monitoring and evaluation of a project so as to translate commitment of empowerment into action. The other claim of this framework is its emphasis on women's inequality with men in every respect so that corrective actions can be taken on time to achieve equality between them.

The critics of the Longwe framework argue, however, that it tends to focus more on women than on men which might invite problems while planning a project. It also fails to address inequality caused by differences in caste, class etc. and it can invite resistance from those who

are not committed to women's empowerment. Moreover, its hierarchical levels of equality and empowerment can make the users confused and its use limited since these levels may not necessarily follow the same order all the time. The other criticism of this framework, as put forward by March et al. (1999) is that it does not explain well the difference between women's control over a small resource (for example, a hoe) and their lack of access to a big resource (for example, land). In such a situation, there is a danger to misinterpret women's level of equality and empowerment in relation to men.

Gender Analysis Matrix (GAM): This framework, developed by Rani Parker, is recognised as a systematic community-based technique to be used by field workers to find out the impact of development interventions on four levels - women, men, household and community in terms of four areas - labour, resource, time and culture (March, 1999). This tool is used in a matrix form and is being claimed as simple, quick and participatory with representation of both women and men in the process and thereby fostering bottom-up planning to increase the chances of higher acceptance of a project by a community.

However, this approach has also been criticised for reasons such as - it is less suitable for macro level analysis; the use of various categories can be confusing, leading to the loss of some important data in the process; it demands a lot of skills and patience on the part of facilitators and it is difficult to find such people; and its emphasis on collecting information from mixed groups may lead men to dominate the discussions. This framework is also criticised for not being able to give proper attention on the impacts of project interventions on different categories of women and men.

Moreover, the other major limitation of this approach is that it does not deal with structural aspects of unequal relationships and unequal access to and control over resources between women and men without which no development interventions such as water supply can treat equally with these two sexes in the project communities. Further, this framework also does not tell much about the consequences of women's and men's lack of participation in projects such as water supplies and the mechanisms that need to be followed to sustain the benefits, both practical and strategic, accrued from such interventions. Though this framework is quite effective in disaggregating the collected data by sex so as to know the level of the impact of

the development interventions on women and men, this does not appear to be more concerned with the issue of women's empowerment, and thus fails to explain properly why the impacts on the two sexes are different and how best they can be improved.

Social Relations Approach: The social relations approach developed by Naila Kabeer at the Institute of Development Studies, Sussex University, UK, in 1994, has three main elements. They are: the goal of development as human well-being, the concept of social relations and institutional analysis (Kabeer, 1994b). This framework, proposed more in the form of concepts rather than tools, focuses on people's relationships with each other and with resources through institutions such as the state and the market. It tries to analyse the inequalities between women and men in the distribution of resources, power, rights etc. and helps to create an environment where women can act as change agents in the development process (March, 1999). This approach is considered to give a holistic picture of poverty by describing processes of impoverishment and empowerment. It is recommended for use at various levels, for analysing institutions with linkages at different levels, and to dig out the connectedness of women and men through their social relationships.

The limitations of this approach are, however, that it is complicated, demands a lot of work from the practitioners and requires a lot of skills on the part of users to develop a proper linkage between various levels. The lack of proper understanding of complex concepts such as 'institution' and 'organisation' make it unsuitable to use it in a participatory way at the community level. Its focus on institutional relations can lead to overlooking crucial gender issues at various levels. Because of the existence of various smaller groups formed for various purposes even within a community, it is difficult to define the boundary of a community as an 'institution'.

In view of the potential uses and limitations of the various GAD frameworks discussed in this section, the following section describes which of these frameworks are more suitable for use in this research and why.

3.2 Analysis of the Prospective GAD Frameworks for Use in This Research

The earlier discussions show that none of the GAD frameworks is free of criticisms. Hence, it became a difficult task for the researcher to decide which GAD framework works best in relation to others for use in this research. In turn, a number of GAD practitioners both in the UK and Nepal were consulted for feedback on this matter. It was felt after these consultations that it really does not matter whether one decides to choose one framework over another as long as the analyst is clear about the overall objective of applying a GAD approach i.e. emancipation or empowerment of women by addressing existing power imbalances that they have with men and focusing on activities that help to lead to a society with greater gender equality between the two sexes. This perspective was further reinforced by two books published recently by van Wijk-Sijbesma (1998) and March et al. (1999).

The book written by van Wijk-Sijbesma (1998) and published by IRC, both of whom have done enormous work on gender in relation to water, suggests an approach for the analysis of gender in water resources development and management which is based only on six questions disaggregated by gender. Those questions focus on issues such as the way people are using resources, the way people are contributing to the development and management of water resources, the decision-making and controlling of implementation, types of beneficiaries in particular jobs and training that results from the programme inputs, types of people having access to and control over various project benefits, and the distribution of benefits among the people of various social and ethnic divisions. What can be understood from this analysis is that one can still carry out a gender analysis even without applying any suggested framework as long as the objective of empowering women is clear and all relevant information is disaggregated by sex.

Being even more specific about whether or not it is necessary to always use a framework developed by others March et al. (1999) argue in their book that one does not need a formal framework in order to work well or innovatively on gender issues, to reduce gender inequality or to support women's empowerment. The purpose of the various GAD frameworks is to help the users to go one step further in understanding gender issues but they will not be useful if the users find them confusing. Because a framework selects a limited number of factors, those felt to be important by the authors as discussed in the earlier section, each framework can only

produce a crude model of reality. On the other hand, each person can also have his/her own sets of values and assumptions. Hence, the authors further suggest that the users can interplay between their sets of values and assumptions and of the existing frameworks to determine which approaches and interventions to consider. Further, one can also combine gender frameworks designed by others to create one's own hybrid version, adapting different components of separate gender frameworks and adding one's own ideas.

The message that came across from these discussions was that a new perspective can be taken in this research by combining the researcher's ideas with those of others if it is felt necessary to do so. What was then necessary was to decide about the GAD frameworks with which the researcher could combine his ideas. This was essential not only for an effective analysis of the field results but also to give a better direction to the field work. In order to develop the researcher's ideas on the appropriateness of the right framework for use in this research, a review of gender issues in the water sector, as presented in Chapter 2, was carried out. This review showed that water projects implemented in the past have not been able to sustain practical benefits (availability of adequate amount of drinking water) to women and men of their project areas even though water is a basic need required for human survival. One of the main reasons identified from this review, for such an ineffectiveness of the water projects, was their failure to improve women's strategic position in various stages of the water projects. Though women are the primary actors and users of water resources the experiences show that they have been involved only to fulfil the project requirements (token involvement) rather than to improve their overall living condition. In this regard, GAD practitioners argue that women's active involvement is necessary not only for the sustainability of project benefits but also for overall societal development, since their strategic involvement in project activities can lead to various other advantages. Some of these arguments are as follows.

van Wijk-Sijbesma (1998) argues that a balanced attention to involve both women and men in water projects optimises social and economic development. On the other hand, the projects which bypass women not only endanger the efficiency and effectiveness of the projects but also will have negative impact on development. Some others (Hannan-Andersson, 1995 and Mlama, 1994 in van Wijk-Sijbesma (1998) argue that the effective involvement of women in water projects enables them to give direction to their lives and circumstances, while in the absence of

such involvement, they keep doing the secondary activities where they have no say and do not share control of the resources on which their livelihood depends. Similarly, Moser (1989) talking about her empowerment approach claims that involvement of women in development interventions is to give them the same rights as men so that they can determine choices in their lives and influence the direction of change. In various international water conferences held in New Delhi in 1990 and afterwards, women's involvement in water projects has been specified not only for the efficiency of the projects but also for wider socio-economic development (Chapter 2).

Highlighting the needs for addressing women's strategic involvement in development interventions, Moser (1993) also argues that because women, more than men, face the consequences if projects fail, they will be more concerned about their sustenance. Their active involvement in decision-making roles also gives them higher status in the family and the community, which is essential to increase their confidence. Likewise, IDS (1995) claims that active involvement of women can lead to improve their position vis-a-vis men which can make a significant contribution in overall development. Mosse (1993) also supports that women's strategic roles in projects can increase the efficiency of the projects as well as growth of societies.

Documenting the experiences of a number of countries, van Wijk-Sijbesma (1998) notes that the reason why women, despite being the primary users and managers of water resources, protectors of family health and educators of the new generation, have few opportunities to participate in decision-making roles in water projects is that they have a number of strategic constraints. These include: unequal rights both in the household and the community, lack of freedom over their own bodies, lack of access to and control over resources, lack of recognition for their work, inability to make independent choices due to lack of other skills and lack of self-respect. On the other hand, addressing these strategic issues such as control over resources, can improve their status in their own eyes and in the eyes of their husbands and gives them more decision-making power in the household. It also enables women to take up health education and organise savings and loan groups to initiate other income-earning activities. These economic and social changes also create spaces for them to get recognition from men in public decision-making.

The other argument in the GAD literature is that though there has been a lot of emphasis on soliciting women's meaningful participation in development activities, women find it very difficult to participate because they are already over-burdened (May, 1997 and Bilgi, 1998). These authors thus argue that the projects should not only be concerned about increasing women's participation but also about understanding prevalent gender roles and how a compromise can be made between these two so that the projects can easily meet women's genuine needs and interests. Some others (Curtis, 1986; Frischmuth, 1997; Van der Laan, 1998) argue that a better understanding of the gender division of labour between women and men in the project community and addressing this issue properly in the project, which is a strategic need of women, can yield many advantages such as improvement in women's, children's and other family member's health, increase in project efficiency since women can give more time to the project, and more time for women to participate in other productive activities. The fulfilment of this need can give women opportunities to earn more income, which can have multiplier effects in the improvements of the lives of all family members, including women themselves (Jazairy et al. 1992).

'A Gender Reference Guide' prepared by UNDP (1998) also suggests a number of gender sensitive strategies to address the gender inequality between women and men. They include, increased participation by women in all activities, a shift in women's traditional roles and responsibilities, improvement in access to and control over resources, that is an increase in women's bargaining power, positive changes in women's and men's attitudes at all levels: household, community, field staff and project management, and increased initiatives by women and men from different interest groups in project activities.

From these arguments and the discussions presented in Chapters 1 and 2, it can be said that development interventions, such as improvements in water supply, need to focus on improving women's strategic position, in terms of achieving equality and improving power relationships with men, not only for the sustainability of practical benefits but also for overall social development. The arguments made in the GAD literature and the ineffectiveness of water supplies implemented in the past in meeting women's practical needs show a close relationship between practical and strategic gender needs of women. Because the focus of this research is on water, which is a basic practical need of women and men (more so of women as they are

traditionally considered to be responsible to meet the household need for water), and this need is difficult to meet if women's strategic gender needs are not considered, it was decided in this research to draw on the concepts of Moser's framework of practical and strategic gender needs, as she talks directly about these issues.

Though, the Social Relations Approach also appears to be an effective GAD framework for a gender analysis of the impact in the water sector as it focuses on issues such as poverty, inequality, imbalance power relationships, class/caste differences, women's empowerment etc., the fact that this framework is a little complicated to apply by the initial users due to the linkages that need to be developed between various concepts across various levels, such as household, community, market and state, prevented its use in this research. Further, the difficulty in linking various concepts and its major focus on institutions also constrained its use in a participatory way at community level in this research, which was, however, necessary due to 'gender' being a sensitive topic in the Nepalese context, more so in rural areas, and the need to make the field environment lively so that everyone, whether literate or not, could actively contribute to the information collection and analysis process.

Another difficulty to use the social relations approach in this research was that this approach puts a lot of emphasis on 'market' as one major institution, which is, however, not a major focus in this case since this research deals with rural water supply in rural areas of Nepal, where drinking water is basically used for household consumption, and where the marketing of this resource is not yet developed. Although the collection of water tariffs from user households was initiated for some time in some communities, it was later stopped due to various reasons, which will be dealt in detail in the forthcomig chapters. Because of these reasons, the role of 'market' is not yet clearly seen in the research communities though it may be there any time due to the increasing scarcity of water resources and the difficulty to keep a balance between the demand and supply of this resource.

Due to these reasons along with the ones discussed in the earlier section, the researcher did not have much confidence to use this approach in this research. Since this research was for an academic purpose and thus, had to be finished within a given period of time, the researcher, upon consultation with others, decided not to take any chance of using this approach and falling

in any danger of missing out useful information due to the lack of full confidence on its proper application.

Similarly, the researcher did not find the Gender Analysis Matrix also to be much useful for use in this research since it also has been criticised for failing to answer many important issues as discussed in the previous section. The other reasons for not using this approach in this research are as follows. This approach is somewhat confusing in that it proposes the category of 'household' as one major element when collecting and analysing information, while there are already two other categories for 'women' and 'men' in this approach, which can encompass all household related activities within one of these categories. The lack of a clear distinction between the information that should fall under these three categories can lead to recording the same type of information in one or more categories and missing out many other useful information. Similarly, the other limitation of this approach is its emphasis on 'resource' as a separate category when it already has two other categories for 'material' and 'labour', which are also resources. Hence, as in the above discussions, the lack of a clear distinction regarding what should fall under each of these three categories, there is a higher possibility of reporting the same information in one or more categories while increasing the chances of losing other important information.

On the other hand, the positive sides of Moser Framework, despite its number of limitations, are that it is highly recommended for judging the gender impact of a development intervention at the community level, which is a primary focus of this research. Further, Moser argues that women's empowerment is possible only by addressing their strategic gender needs, which can help women to be on an equal footing with men; this is another reason for borrowing her concept, to see the extent to which the selected water projects in this research have been able to meet women's strategic gender needs for their empowerment. Because Moser sees meeting women's strategic gender needs as the process of women's empowerment, it was also thought to be useful to borrow some concepts from Longwe's Empowerment Framework in this research as she directly deals with this issue for women's equality and balanced power relationships with men. Though there is a lot of debate going on about women's empowerment, as can be found from the work of Jennifer Harold, Srilatha Batliwala, Nira Yuval-Devis, Kate Young and Jo Rowlands (all in Rowlands, 1997), Longwe's Empowerment framework is better

structured and more user-friendly, and thus widely used as a GAD framework than others. These reasons also led this researcher to borrow some concepts from Longwe's framework. Finally, since it was necessary to find out the details of how women and men have been participating in various stages of the selected projects and what the impact of such participation has been in the household division of labour, it was decided to follow the 'activity profile' and 'checklist' concepts of the Harvard Analytical Framework to answer these issues.

Apart from the reasons mentioned above, the decision to draw on the concepts of Moser's practical and strategic gender needs, Longwe's empowerment framework and the activity profile and the checklist of Harvard Analytical Framework in this research, was felt to be an appropriate choice also for two other reasons: i) Moser's framework has been suggested for use in conjunction with the Harvard Analytical Framework and ii) there is some similarity between the concepts of Moser's practical and strategic gender needs and the Longwe Empowerment Framework, except in that, while Moser claims that there is a distinction between the practical and strategic gender needs, Longwe argues that there is a continuum between these two needs. Otherwise, both of them put emphasis on the need of development interventions to meet both these needs of women. The other positive aspects of these tools, as discussed in the previous section, were also considered while making this decision. An analysis of the Moser's framework of practical and strategic gender needs, Longwe's Empowerment framework and Harvard Analytical Framework, followed by some discussions on the need for modifications on those frameworks for their wider application in the water sector, including this research, is as follows.

Practical and Strategic Gender Needs Approach: Before analysing Moser's framework of practical and strategic gender needs it might be useful to mention here that Maxine Molyneux first coined the distinction between the terms 'practical' and 'strategic' using the concept of gender interests in 1985. Caroline Moser then adopted this distinction for planning, using the concept of gender needs. However, the term 'needs' has been criticised as suggesting that women are passive recipients of assistance determined by external planners. In contrast, 'interests' is a more active concept, because it implies that women themselves define their demands (Kabeer, 1994b in March et al. 1999). Hence, in this research, the term 'needs' will

be used to refer to practical necessities referring to 'practical gender needs' and the term 'interests' will be used to refer to strategic necessities referring to 'strategic gender interests'.

Moser (1989 and 1993) argues that development projects should focus both on practical and strategic gender needs of women. She defines practical gender needs as the needs women identify in their socially accepted roles in society. Practical gender needs do not challenge the gender divisions of labour or women's subordinate position in society, although they arise out of them. They are a response to an immediate perceived necessity, identified within a specific context. They are practical in nature and often are concerned with inadequacies in living conditions such as water provision, health care, and employment. Though these needs, when fulfilled, are shared by all family members, women generally presume that these are their specific needs as the responsibility of fulfilling these needs has traditionally fallen on them.

Strategic gender needs, on the other hand, are the needs women identify because of their subordinate position to men in their society. In other words, they are the needs which arise from the analysis of women's subordination to men. Strategic gender needs vary according to particular contexts. These needs when met would allow women to improve their imbalance power relationships with men. They relate to the abolition of the sexual division of labour, the alleviation of the burden of domestic labour and child care, freedom of choice over childbearing, the removal of institutionalised forms of discrimination, power and control and may include such issues as legal rights, domestic violence, equal wages and women's control over their bodies. Meeting strategic gender needs helps women to achieve greater equality. It also changes existing roles and therefore challenges women's subordinate position, giving them more equality with men.

Moser (1993) further states that the main objective of gender analysis and planning is to relieve both strategic and practical gender needs so as to emancipate women from their subordination, and to embrace equality, equity and empowerment. Hence, the focus of GAD work should be on recognising women as active participants in development, through looking at practical gender needs. Such work should also recognise that women do not participate in development on equal terms with men because of their subordinate position and thus there is a need to address their strategic gender needs.

While these concepts of practical and strategic gender needs are well-known to development practitioners trained in gender analysis, they remain outside the conventional framework for planning and designing water projects. Drinking water projects are nearly always carried out by engineers - most of them men - whose goal is the simple and laudable one of bringing adequate quantities of good quality drinking water closer to the homes of the target communities. These male engineers do not perceive any direct relationship between their traditionally understood objective, to fulfil people's primary need for safe water, and many of the strategic gender needs as they have been emphasised by Moser. Though some of these engineers would agree that their work is ultimately concerned with the twin aims of enabling women and men to meet their practical needs, and enabling the marginalised groups within communities, including women, to fight against oppression and exploitation, the difficulty for them is to find how Moser's understanding of women's strategic issues, such as the right of women to control their bodies and to decide about whether or not they want to bear and rear children, own land and property, fight against domestic violence etc. can be addressed in their drinking water projects.

Hence, the present need is to derive such indicators of women's strategic gender needs which might not conflict with the traditionally perceived objective of the development of water supplies, which are less challenging to male engineers to tackle in the beginning, and which can help to prepare a platform to meet the above mentioned strategic gender needs of women so as to develop a society where both women and men can thrive equally. This is where the Longwe Empowerment Framework appears to be useful for consideration, as her indicators of women's empowerment are more specific and are close to the reasons for the ineffectiveness of development projects, including water supplies, as discussed earlier. A brief description of her understanding of women's empowerment is as follows.

Women's Empowerment Approach: Longwe (1991) sees women's empowerment as equality with men in the development process, to achieve control over factors of production on an equal basis with men. In her framework, she discusses five hierarchical levels of equality - welfare, access, conscientisation, participation and control - which indicate the extent to which women are equal with men, and have achieved empowerment.

She describes welfare, the first level of equality vis-a-vis women's empowerment, as women's access to material welfare, relative to men, in matters such as food supply, water supply, medical care etc. Access, the second level of equality, refers to women's access to factors of production such as land, labour, capital, credit, training, market opportunities etc. in relation to men, and suggests that reform in legal and administrative procedures is needed if women do not have equal opportunity with men to have access to these factors of production. Longwe describes conscientisation, the third level of equality in the hierarchy, as a process of understanding the difference between sex roles and gender roles, and that the latter are cultural and thus can be changed. It also refers to the need for the sexual division of labour to be fair and agreeable to both sexes and not decided by one's domination due to economic and political factors. Participation, the fourth level of equality vis-a-vis women's empowerment, has been defined as a process where women get equal opportunities, together with men, to participate in decision-making processes at all stages of a project. Finally, control, the fifth, the final and the highest indicator of women's equality and empowerment, is the level where women are in a position to control and to make decisions about the use of factors of production and the subsequent benefits arising out of them.

Though these indicators of women's empowerment are useful to consider in the water sector, the limitation is that these indicators are in a hierarchical order and thus difficult to address in a linear mode. This framework shows interconnectedness among the five indicators of empowerment and thus it is confusing whether water planners and policy-makers always have to follow the same order as presented in the framework or else their water supply activities will not lead to women's empowerment. The other limitation of the hierarchical order of the Longwe framework is that the level of 'participation' has been placed way beyond the levels of 'welfare' and 'access' which gives an impression that women's 'participation' in water supply has to be sought only when the first three levels of equality have been achieved, since all these are presented in a hierarchical order. This is not, however, true since women's participation in water supply is essential, to be sought right from the beginning of a water project, so that they feel more and more confident as the project moves towards addressing their other strategic gender issues.

The large gap between the levels of 'access' and 'control' is also confusing in the Longwe framework since these two complement each other and thus make more sense if they are put together. It is much easier and more practical to look at the level of women's and men's control over various water resources immediately after their level of access to these resources is understood. The gap between these two, however, can cause this interrelationship to be lost and increase the chances of missing useful information. Similarly, this framework does not mention equity in its discussion of 'welfare' though equity can be both a practical as well as a strategic issue. One other limitation of this framework is its lack of clarity on women's status since this is an important indicator of women's empowerment, as highlighted by the GAD literature. It is difficult to know from this framework whether women's status has any significance in defining their level of empowerment and if yes, where exactly it falls in the present hierarchy.

Harvard Analytical Framework: As explained earlier, the tools such as 'activity profile' and 'checklists' of the Harvard Anlytical Framework are very effective and helpful in finding out the details of the activities that women and men in a community are engaged in. These tools clearly present the gender roles between women and men which can be a good basis for development projects to plan the project activities in ways that do not challenge the present structure in the community. However, because this framework does not necessarily analyse the underlying causes for the imbalance power relationships and unequal treatment between women and men, this framework, on its own, is less helpful to emancipate women, the ultimate objective of a GAD approach. For example, this framework argues that women's participation is necessary for the effectiveness of a development intervention such as water supply but it does not properly explain how their participation can be increased without increasing their burden, how they can balance their work load between their homes and the community activities, and how their interests towards the project activities can be maintained for a longer period since the sustainability of those interventions depend entirely on their effective participation. In view of these limitations of the Harvard Analytical Framework, it appears to be relevant to use this framework in combination with other frameworks such as Moser Framework and Longwe Framework as these deal more effectively with issues such as inequality and imbalance power relationships between women and men and their causes, and

with women's empowerment as a prerequisite for overall societal development. Thus, this framework has been used in conjunction with Moser Framework and Longwe Framework in this research.

The above discussions indicate that though Moser's framework and Longwe's framework appear to be useful gender analysis tools they have some limitations for their effective use in the water sector, which is the focus of this research, and thus there is a need for some modifications in them. The following section presents a modified version of these frameworks for use in this research.

3.3 A Framework Suggested for Gender Analysis of Impact in the Water Sector

From the arguments put forward by the GAD practitioners in Chapter 1 and Section 3.2 of this chapter, and from the reasons highlighted for the ineffectiveness of drinking water projects in providing sustainable benefits to women and men in their project communities in the past as discussed in Chapter 2, a number of women's strategic issues have emerged for consideration while carrying out a gender analysis of the outcomes of drinking water projects. Moser's framework and Longwe's framework have also highlighted a number of such strategic issues, as discussed in the earlier section, for consideration in development including that in the water sector, though these frameworks have some limitations for effective use in analysing water supplies. The major strategic issues that can be drawn from the discussions presented in Chapters 1 and 2, and the earlier sections of this chapter are summarised below:

Experiences of various drinking water projects implemented in different parts of the world show that women's participation, in relation to men's, is very limited in the management of those water projects. Even in projects where women have been involved their involvement is limited to contributing labour and other secondary activities that neither improve their status in the household and the community nor their relationships and bargaining position with men. Such a tokenistic involvement of women has led them to be demotivated towards the proper protection and management of water resources. As a result, many of such projects have been ineffective to provide long-term practical benefits to women and men in their project communities as well as to empower the former to fulfil their various other genuine needs. What appears from these experiences is, therefore, that women's, together with men's, active

participation is a key indicator of projects' effectiveness in sustaining practical benefits and of women's empowerment which can eventually lead to the fulfilment of the former and many of their other genuine needs and concerns.

These experiences also show that though some projects have tried to solicit women's active participation and women are also willing to participate they have not been able to manage their time effectively since they still have to perform all their household chores themselves. This finding is an indication that the water projects have only emphasised the involvement of women in the project activities but they have not yet made any efforts to create an environment where men are motivated to share women's traditionally assigned activities. Further, even in projects where more women have got opportunity to participate in various project activities their roles have been very similar to what they have been performing in their households and other communal activities. The result is that there is no advancement in women's status, no reduction in their work burden, no improvement in their relationships with men, and no success in improving projects' effectiveness in providing long-term benefits to its beneficiaries. Hence, a change in the traditional gender division of labour appears to be an important indicator to be looked at while analysing the outcomes of a drinking water project from a gender perspective.

An extensive review of the literature as presented in the earlier chapters also reveals that in many water projects studied, women in relation to men, have limited access to various project resources such as timely information, choice of technology, selection of location of tap-stands or tube-wells, training, especially technical ones, paid positions, etc. Moreover, when it comes to the issue of control over those resources they have no control at all. The literature further shows that the projects, where women have better access to and control over the project resources, were more effective in meeting women's and men's needs and concerns and in improving the relationships between these two sexes than in the projects where women had limited access to and control over such resources. From these experiences, the issue of women's access to and control over project resources has appeared as an important indicator to be considered while analysing the results of a water project from a gender perspective

Similarly, a review of literature on gender issues in development sector in general and in drinking water projects in particular highlights the equity in sharing of benefits as one important issue to be taken into consideration while analysing water projects from a gender perspective. These experiences show that in order to receive everyone's attention towards the better management of project resources the latter should provide equal benefits to all in the community, irrespective of their sex, ethnicity, class, etc. The literature on gender and development sector also argues that development interventions, including that of water, should be serious in addressing the issue of equity not only for the sustainability of practical benefits to women and men but also for the sake of providing justice to those who are poor, vulnerable, and marginalised in most cases.

And, finally, the other important issue that can be drawn from the past experiences as presented in the earlier chapters is that the development projects such as water supply should provide training on skill development, technical aspects and basic literacy to women together with men so that the former can feel confident of their roles not only to undertake the given project activities but also to initiate new development ventures in their communities. These efforts can also help to minimise the gap between the women and men in the project areas and to develop a society with sustainable human development.

In view of these major women's strategic gender issues drawn from the literature and from the current analysis of gender issues in the water sector, a new framework, consisting of five indicators of women's strategic gender interests vis-a-vis women's empowerment, has been drawn up to carry out a gender analysis of the outcomes of the drinking water projects selected in this research. Those indicators are presented in Box 7.

Box 7: Suggested Indicators of Women's Strategic Gender Interests

- women's participation in project activities
- changes in the traditional gender division of labour
- women's access to and control over resources (higher bargaining power)
- equity in sharing of benefits, and
- women's increased status and new development initiatives

A brief description of what each of these indicators refers to in the context of this research is presented below:

1. **Women's Participation in Project Activities:** In this research, participation, as one of the indicators of women's strategic gender interests in water supplies, refers to women's equal participation, in relation to men, in all stages of a drinking water project - pre-construction, construction and post-construction. Because women are the primary users of water resources, this research will attempt to find out whether women have been involved from the very first stage of negotiation that takes place between the community and the project, to monitoring and evaluation of the project progress. This research will explore issues related to women's participation with an assumption that their participation in project activities needs to be sought not only in terms of their higher number but also in terms of the opportunities given to them to make decisions about the activities that affect their lives.

2. **Changes in the Traditional Gender Division of Labour:** This is the second indicator of the framework proposed for a gender analysis of the water projects selected in this research. This indicator refers to a sharing of women's traditional responsibilities by men so that women can have more time to participate in project activities, without which there is less chance of the sustainability of water supplies. This research will focus in analysing the efforts made by the selected water projects in sharing of women's work by men since this mechanism also gives the former opportunities to be actively involved in many other productive activities which can have multiplier effects in the household, community and nation.

3. **Women's Access to and Control over Resources:** This third indicator of women's strategic gender interests, which needs to be considered while doing a gender analysis in water supplies, refers to women's equal access to the use of water resources and control over the use of those resources, in relation to men, by having decision-making authority over them. Because the decision-making power comes through an increase in women's bargaining ability this research will put emphasis on finding water projects' efforts to increase women's access to and control over income, which strengthens their bargaining position both in the household and the community.

4. **Equity in Sharing of Benefits:** This fourth indicator of women's strategic gender interests to be considered while analysing the impact of water supplies on gender aspects implies the extent to which the water supplies have considered the issues of sex, caste, class, etc. while providing benefits to the people in the project areas. Because the sustainability of the water systems depends on the interests of all segments of the community towards the protection and management of those systems, this issue of providing equal benefits to all in the project areas is crucial. Some aspects that will be explored under this indicator are the types of benefits received by women and men, caste/ethnicity and class of women and men that are benefiting from the project, project requirements to be met by women and men in order for them to benefit from the project, types of people directly concerned with the management of water resources, etc.

5. **Women's Higher Status:** This indicator of women's strategic gender interests in water supplies refers to opportunities given to women, in relation to men, to increase their self-esteem, confidence, social skills (training on literacy, numeracy and project management) and technical skills (training on repair and maintenance of the water systems and construction), and their involvement in higher decision-making bodies responsible for the management of water supplies in the project community. This research will explore the efforts made by the selected projects to increase women's status in relation to men since the former can lead to many positive effects both in the household (for example, control of domestic violence, emphasis on children's education) and the community (for example, women can organise themselves in groups to initiate some other development activities in the community).

In line with these five suggested indicators of women's strategic gender interests, an attempt will be made in Chapter 7 to assess the outcomes of the selected drinking water projects in meeting these interests of women of the project communities.

3.4 A Framework for Institutional Analysis of Agencies in the Water Sector

Since the effectiveness of drinking water projects in meeting women's strategic interests depends on the institutional environment in which the projects are designed, planned and implemented, it is equally important to look at the policies and practices of the selected agencies

from a gender perspective. Accordingly, a review of the literature on institutional studies was carried out to find out the important gender issues at the institutional level which can influence the outcomes of agencies' activities/projects. The findings of this review have been presented in detail in Chapter 2. Regarding the selection of a framework to analyse the policies and practices of the institutions selected for this research, the researcher found this task also difficult since various authors were found arguing differently. Some of such arguments are as follows:

Macdonald et al. (1997) suggest that it is useful to break down the concept of an organisation into component elements, in which gendered structures and processes can be identified. Accordingly, Swieringa and Wierdsma (1992) identify four components of any organisation which determine its organisational behaviour. They are: i) strategy: the organisation's goals and the ways it seeks to realise them; ii) structure: the division and grouping of tasks, authority and responsibilities; the relative positions of, and formal relationships between, members of the organisation; iii) systems: the conditions and agreements relating to the manner in which processes (information, communication and decision-making) proceed; and iv) culture: the combined sum of the individual opinions, shared values and norms of the members of the organisation.

On the other hand, Macdonald et al. (1997) suggest some other key aspects of an organisation that potentially determine its gender sensitivity or gender equality as follows: i) the shape of the organisation in terms of the distribution of decision-making power; ii) the balance of women and men on the staff, and particularly in management and policy- or decision-making roles; iii) organisational culture and style; iv) the day-to-day functioning of the organisation - is it women-friendly, or even people-friendly. Similarly, a review of some other literature (Goetz, 1995; Macdonald, 1997; Wakeman et al. 1996; Goetz, 1997a and 1997b; Hadjipateras, 1996; May, 1997; Macdonald, 1994)) highlighted some other issues to be looked at while engendering an institution. They are: organisational ideologies and goals, management style and organisational values, organisational structure, practical arrangements and facilities, resource commitment, gender training, expressions of power, presence of change agents etc. While some of these issues are complementary, some overlap with each other.

Given the time and resources available in this research, which aimed to study several projects and agencies at several different levels, it was not possible to go into great depth in the debate on how gender may best be mainstreamed in agencies. Therefore, in view of the key gender issues prevalent at the institutional level as presented in Chapter 2 and the arguments of various authors about the framework to be considered for a gender analysis at the institutional level as discussed above, it was thought to be useful to develop a new framework consisting of all issues suggested as important in the literature and examine them in the agencies selected for this research from a gender perspective. The institutional framework suggested for use in this research is presented in Box 8.

Box 8: Suggested Framework for a Gender Analysis at Institutional Level

- Policy formulating mechanisms
- Objectives and strategies
- Personnel policies
- Organisational structure
- Organisational culture and management style
- Provision for gender training
- Provision for human and capital resources
- Role of change agents

Based on these indicators, a gender analysis has been carried out in Chapter 6 to examine the extent to which the policies and practices of the selected agencies are supportive of meeting women's strategic gender interests at the community level. Because in Nepal, almost all the agencies engaged in the drinking water sector, whether they are governmental or NGOs or running bi-lateral or multi-lateral projects, have been funded by international donors, and they have to follow the norms set out in the water legislation and national plans and policies, it is also essential to analyse the water policies at these levels from a gender perspective as they can impact upon the gender outcomes of the projects undertaken by the selected agencies. This task has been carried out in Chapter 5.

Overall, it is expected that the assessment of international and national level water policies carried out in Chapter 5 and the assessment of institutional policies and practices carried out in Chapter 6, both from a gender perspective, and the analysis of their impact at the community level in meeting women's strategic gender interests, which is discussed in Chapter 7 using the framework of five indicators already suggested, should clarify the importance of addressing gender issues at all these levels. This task will also assess the relevance of the suggested frameworks for carrying out a gender analysis at the institutional and community levels of the drinking water sector. Based on all the discussions made in Chapters 5, 6 and 7, some conclusions will be drawn in Chapter 8 for future consideration.

4. STUDY CONTEXTS AND RESEARCH METHODS

This chapter gives an introduction to Nepal, where this research was carried out, to the gender situation in Nepal and the social context of Nepali villages so as to set a background to the research study and its findings. Also described in this chapter are the agencies and their communities selected for this research, research methods, selection of informants, types of collected information and their analysis. This description will serve as background material to a subsequent discussion of the gender issues in the management of the selected drinking water projects presented in the forthcoming chapters.

4.1 Introduction to Nepal

Nepal, the only Hindu Kingdom in the world, is situated on the southern slope of Himalayas between India to the east, south and west and Tibet of China to the north. It extends 26 22'N to 30 27'N in latitude and 80 4'E to 88 12'E in longitude. Nepal has a total area of 147,181 sq. kms. (see map in Appendix 2). Topographically, it is divided into three ecological belts, mountains occupying 15%, hills occupying 68% and Tarai, the flat plain land in the South, occupying 17% of the total land area of the country. For administrative purposes, the country is further divided into five development regions namely, eastern, central, western, mid-western and far-western. These five development regions include 14 zones and 75 districts consisting of about 3,913 Village Development Committees (VDCs) and 58 municipalities (CBS, 1999).

Nepal has a clear diversity of weather and climate as it has a great variety of topography. It has tropical, mesothermal, microthermal, taiga and tundra types of climate. The average annual rainfall is 1,600 mm. The population of Nepal was estimated at 18,491,097 in 1991 census. With an annual growth rate of 2.02%, it is recently estimated at 22 million. The population census of 1991 reported that of the total population about 8% lived in the mountains, 45% lived in the hills and the remaining 47% lived in the Tarai. As of 1991, only nine per cent lived in urban areas. As there are many ethnic groups in Nepal, there are many dialects spoken in the country; Nepali is the first language and it is used for official purposes. While 87% of the population observe Hindu religion, the rest practice Buddhism, Islam and

Christianity (CBS, 1998; CBS, 1999). The Mount Everest, the highest peak in the world, and the lord Buddha, the symbol of peace, are the pride of Nepal.

4.2 Gender Situation in Nepal

The poorest of the poor in Nepal are mostly women (Acharya, 1997). In most castes and ethnic groups of Nepal, women have a lower status and heavier workloads than men. Among the rural population, parents often give their girl children less food, less education and fewer opportunities for self-development. Discrimination against women starts from birth, because of society's preference for boys, which keeps women in a disadvantaged position in all respects. The following section describes the situation of the disadvantaged Nepali women:

The sex ratio is one of the most important indicators of women's status. In most developed countries the sex ratio is usually in favour of women. However, in Nepal, the population censuses of 1971 and 1981 both show it to be in favour of men. Even in the census in 1991, which shows the national sex ratio in women's favour for the first time, when the sex ratio is broken down by ecological regions such as the hills and Tarai (plain flat land), and rural and urban, the social discrimination against women becomes visible. More men are seen in the Tarai and in urban areas, where life is much easier than in the hills and in rural areas, where women are left to face all the difficulties (Acharya, 1997; UNICEF, 1997). Another important indicator of women's empowerment is control over their own fertility. Because of the lack of control on their fertility due to society's preference for boys over girls the fertility rate of Nepalese women has been found to be very high, at 5.6, the second highest in South Asia (UNICEF, 1997). In case a woman in Nepal fails to be fertile she has no security, as her husband can legally marry another woman.

The other important indicators of women's status are infant and child mortality rates, under five mortality rate, crude death rate and life expectancy. Ironically, all these indicators are in favour of boys/men in Nepal, with a much higher difference between rates for boys and those for girls when compared with the other South Asian countries. This clearly signifies the social neglect of female infants and children, since it is a scientifically proven fact that female

children are stronger than male children during their infancy and early childhood (Acharya, 1997).

As quoted in a UNICEF report (1997), Nepalese women marry at a much earlier age, 16 years on average, than their sisters in other South Asian countries. Further, they become unhappy and humiliated if they are unable to bear a child or produce only girls. Literacy and educational qualification, the other vital indicators of women's social status, are also in favour of men, with an illiteracy rate of 75 per cent among women as against only 46 per cent among men, both much higher than other South Asian countries. Nepalese women have virtually no ownership of land, or of other assets (World Bank, 1991 in Joekes, 1991). Productive assets, due to the prevalent patrilineal system of land inheritance, are predominantly owned and controlled by men (Acharya and Bennett, 1981). Several studies, as quoted in Acharya's (1997) report, have confirmed that women's labour contribution to Nepalese agriculture is substantial, and at least equal to that of men (women's labour input varies from 52 to 58 per cent as indicated in the report). Yet, only 48 per cent of rural women, as compared to 70 per cent of men, are reported as being economically active in the 1991 census. In employment, while 70 per cent of the economically active male population are self-employed the figure is 83 per cent for women. In the industrial sector, the 1991 census reports three per cent of male employment as against only one per cent of women's employment. While males are employed in high paid and skilled jobs women hold low paid and unskilled jobs. Women's participation in politics is negligible in Nepal, as it is in the bureaucracy also, where Nepalese women lag far behind their menfolk (Acharya, 1994; Baidya, 2000). Women's representation in the judiciary and other constitutional bodies is also extremely low (Singh, 1995; Baidya, 2000).

With this background information on the gender situation in Nepal, the following section presents the social context of Nepali villages.

4.3 Social Context of Nepali Villages

This section presents the main features of the economy of Nepali villages, gender roles in the village economy of Nepal, gender division of labour in Nepali villages and decision-making power of women and men at household level. Though the rural women's and men's roles in

decision-making at the village level has been briefly touched upon in this section, this topic has been dealt with in more detail in the next chapter which focuses mainly on gender roles in planning and policy-making at national, district and village levels in Nepal.

4.3.1 The Village Economy

The Nepali rural community has been an agro-pastoral economy in the past. The community functioned to meet the basic survival needs of its people rather than produce for market outlets or for cash income. As reported by Acharya and Bennett (1981), Nepal's rural economy is subsistence oriented with 85% of the average household production consumed by the family that produced it. Agriculture and allied sectors are responsible for more than 80% of the total household income while only about 19% is generated outside the household. On the average, about 70% of the household income is generated in the subsistence sector and only 30% through market intervention. This household subsistence production in which women play a major role, emerges as the backbone of the Nepalese rural economy.

Although agriculture is the main source of subsistence for the rural people of Nepal, the resource base is so poor and land holdings have been so fragmented with population growth that production as well as incomes to individual farm households are inadequate. In this regard, Joekes (1991) reports that only about 90% of foodgrains requirements and 60% of national income derives from agriculture. Even in Tarai, which produces grain surplus to local needs, the population growth has outstripped the increase in production in recent years. A World Bank (1991 in Joekes, 1991) report notes that 'in the hills, a typical poor rural household, consuming all it produces, provides only about two-thirds of its food. Extra household income to buy the rest and other small non-food item comes from miscellaneous types of off-farm employment. In both hills and Tarai, small farmers work a higher proportion of their time off-farm, but are penalised by earning lower hourly wage rates than members of larger farm households.

These situations have led the rural people of Nepal, especially men, to migrate to Tarai, urban areas and to neighbouring countries (mainly India) for their livelihood leaving the whole responsibility of running the households and meeting the needs of other family members, old, sick and children on adult women. This has led the sex ratio to be in favour of males in the

urban areas, as discussed in the earlier section, and to increase the number of female-headed households who have limited access to resources but more responsibilities. According to one estimate (World Bank, 1991 in Joekes, 1991), nearly 1.2 million people moved into the Tarai in the 1960s and 1970s. However, it now offers little scope for further settlement and 20% of the Tarai population is already estimated to be landless.

In recent years, with exposure to the world beyond the village, important changes have been occurring in Nepal's rural economy. Increases in non-agricultural activities have created many formal and non-formal employment opportunities in the export-led industrial market, which relies heavily on low wage female labourers. Nonetheless, a study carried out by Shtrii Shakti (1995) in 10 rural villages and 5 urban centres notes that agriculture is still the main source of income for all rural sites. The total share of this sector adds up to 48%, followed by business/trade (16%), service sector (12%) and wage labour (12%). For urban households too, although business/trade (52%) and service sectors (20%) predominate, agriculture still remains a major source of household income, contributing 14%.

Both in the urban and rural economy of Nepal, women play an important role as the major undertakers, either as farmers or as wage labourers, of economic activities. One feature, that does, however, clearly influence all aspects of women's lives - economic, social, emotional, religious - is that they are living in a patriarchal society. As the Shtrii Shakti (1995) study reports, the influence of patriarchy in all these aspects of women's lives has been found among all of the social groups studied. The study further notes that law, religion, land rights, social customs are all traditionally patriarchal in Nepal. These elements are currently controlled for and by the men of the country who have not yet realised that it could be in their interest to share responsibility. The following sections reveal women's specific roles and contribution to Nepal's rural economy.

4.3.2 Gender Roles in the Village Economy

In Nepali rural villages where the family farm predominates as the major household survival strategy, women stand out as prime investors. The experiences available so far reveal that rural women continue to contribute at a higher rate than men to the household economy while taking into account the total household production and income. Women's contribution is

higher not only in terms of time input but in terms of the overall household incomes as well. For example, citing the experiences of a comprehensive study of the Status of Women in Nepal carried out in eight Nepali villages, Acharya and Bennett (1981) note that the rural women put in substantially more time than men (9.91 hours vs. 5.86 hours) per day into the family farm enterprise. These women also have a significant role in their contribution to total family income through their input into the local market economy (0.91 hours per day) and in employment outside the village (9% of the observed person days) though it is much less than men for whom the corresponding figures are 1.66 hours per day and 22% of the observed person days respectively. The findings of Shtrii Shakti (1995) corroborate these results as it reports that rural women contribute 67% to the family farm economy, 41% to the local market economy and 25% to the short-term employment sector while these figures are 33%, 59% and 75% for men respectively.

Regarding the reasons why men are able to spend considerably more time in the market economy than women, these studies report that men's higher socialisation, greater mobility and greater access to education and capital are the major ones. Further, the men in these rural households are fully assured that whatever land and livestock resources the households have they are fully utilised to provide as much of a subsistence base as possible since the female labour is available within the family. What can be implied from these findings is that women are primarily involved in inside the home and family-farm activities while men are primarily involved in outside the home and off-farm activities. Though Shtrii Shakti (1995) notes that women's participation in economic activities has gradually moved beyond traditional agriculture to the local market economy, the effects of such move have not always been positive. For example, in all 10 villages studied, men are spending less time in traditional agriculture but more time in cash crop activities. Women, too, are involved in cash cropping and other small economic activities such as home-based knitting, weaving, food processing, liquor manufacturing etc. but, they have been further circumscribed with an additional work burden, less mobility and no proportionate access to and control over financial gains.

The other point to be considered while analysing women's participation in the village economy is the variation in their participation caused by their ethnicity. As Acharya and Bennett (1981) observe, women from Maithili, Newar Jyapu, Brahmin, Chhetri and low caste

ethnic groups, who mainly follow the Hindu religion, reflect a greater dichotomy between activities inside and outside the home and contribute only between 3% and 16% to the wider economy and 24% and 33% in the local market economy. In contrast, the ethnic groups such as Kham Magar, Baragaonle and Lohorung Rai, who are least influenced by Hindu values, do not have a clear dichotomy between activities inside and outside the home. Hence, the women from these ethnic groups contribute between 40% and 68% to the local market economy and 34% and 46% to the wider market economy. On the other hand, not markedly 'Hinduised' the Tharu and to a lesser extent, the Tamang ethnic groups, are seen to be more economically dichotomised. These variations in the participation of women from various ethnic groups in the local economy are caused mainly by the roles expected of them by the society. While female entrepreneurship is highly valued among non-Hindu ethnic groups, female sexual purity and behavioural control by affines are highly valued among Hindu ethnic groups. The participation of the women of the Hindu ethnic groups in entrepreneurial market activity is considered degrading and, for all except the low caste women, would entail loss of respect and honour.

Regarding women's roles in the rural economy of Nepal, a World Bank report (1991 in Joekes, 1991) notes that the Nepalese rural women do not in general own land or other assets including those used for production purposes. Though Nepal's economy is mainly based on agriculture and women play a significant role in this sector, their access to agricultural resource inputs (improved seeds, fertilisers, credit, training) is even more limited than men's. As NSAC (1998) notes, gender disparity in income distribution is acute in Nepal due to the command of male household members over family income, absence of property rights for women and the unpaid domestic work the vast majority of working women are engaged in. Even at times, when women are engaged in sectors other than agriculture, they are discriminated against not only in job opportunities but also in wage rates since most women are confined to the informal sector where wages are low, working hours are longer, working conditions are poor and non-wage compensations are non-existent.

4.3.3 Gender Division of Labour in Nepali Villages

The findings of the study of Acharya and Bennett (1981) carried out in eight rural villages in Nepal show that rural women in Nepal spend 10.8 hours per day in activities categorised as

domestic (that includes cooking, washing, cleaning and other household chores), expanded economic (that includes hunting and gathering, fuel collection, water collection, food processing etc.) and conventional economic (that includes agriculture, animal husbandry, outside income earning activities etc.) as against 7.5 hours per day of men. The authors further note that rural Nepali women spend only 5.2 hours per day for social maintenance and leisure while rural men spend 8.5 hours per day for the same.

What is clear from the findings of this study is that rural women in Nepal, apart from undertaking solely the domestic activities spending 4.0 hours per day as against 0.8 hours per day of men, also spend 6.8 hours per day in other conventional economic and expanded economic activities which is equal to men's 6.7 hours per day in these activities. However, when it comes to the time for refreshing themselves by participating in social activities and taking leisure from work, the rural women spend 3.5 hours less than men for this activity. This imbalance in the gender division of labour between rural women and men not only shows men's bias not to participate in non-economic activities but also indicates how over-burdened are the rural women in Nepal and how exposed they are to various health risks. This study also shows that in all eight villages studied, women's work burden was higher than men's. Moreover, in all the villages except for a Kham Magar village, similar time use patterns are evident with men's lead in conventional economic activities offset by women's higher input into expanded economic and domestic activities.

Acharya's and Bennett's (1981) study does not, however, show any sharp differences in work patterns between the women and men of different economic strata. It does, however, show that both women and men in extended families have a substantially lower work burden than women and men in either nuclear families or the residual category, which includes female-headed households, single people living alone etc. The study also reveals that in the extended families, junior affinal women (i.e. the daughters-in-law) followed by unmarried adult women put in the longest hours in various activities. Overall, this study shows that while certain types of labour are usually performed by women in all villages (notably farm maintenance, water collection, and food processing) and other types by men (notably ploughing and house construction), there is considerable variation between and within communities studied with

regard to sexual division of labour for fuel collection, animal husbandry, entrepreneurship and wage employment.

A World Bank report (1991 in Joekes, 1991) also depicts the same picture of Nepali rural women. The report notes that rural women in Nepal provide the major labour input into agriculture, livestock keeping and natural resource use. With the addition of domestic work, adult women in poor households, have a much heavier work burden than men. They work on average 9.6 hours daily, compared to men's 8.9 hours in the Tarai, and 10.5 hours daily, compared to men's 7.9 hours, in the hills and mountains. Girls work proportionately even longer than boys, 7.7 hours compared to 4.4 hours.

Another more recent study carried out by Shtrii Shakti (1995) also reveals that despite some changes in women's traditional roles women work much longer than men, 10.9 hours daily vs. 7.8 hours daily. As before, women continue to engage in 'invisible' labour, i.e. non-market subsistence labour and under valued public wage labour in the export-led economy. The economic contribution of women in terms of hours of work is much more than that of men. The working hours of women per day in rural areas are longer than in urban areas. The study further reports that as in the study of Acharya and Bennett carried out in 1981, women still continue to contribute more time and income to total household production. Finally, the Shtrii Shakti study notes that development interventions have gradually affected gender roles in Nepali rural villages leading to greater social mobility of rural women. However, the large number of young women between the ages of 12 and 25 migrating to the cities to take advantage of purported economic opportunities are faced with the reality of exploitation and commoditisation. There are indications of the increasing abuse of such women in the cities in the forms of rape, trafficking, prostitution etc.

4.3.4 Decision-Making Processes at Household and Village Levels

The findings of the first comprehensive study on the status of women in Nepal carried out in 1981 show considerable variation in the decision-making power of women and men of various ethnic groups at the household level. While women in the economically defined non-dichotomous ethnic groups (such as Lohorung Rai, Baragaonle and Kham Magar) have considerable decision-making power both outside and inside the household, the women in the

dichotomous ethnic groups (such as Maithili, Parbatiya and Tharu) have less so; in the remaining ethnic groups (Newar and Tamang), women's decision-making power falls in between (Acharya and Bennett, 1981). Despite these variations by ethnic groups, some interesting decision-making patterns emerge from a deeper analysis of the aggregated decision-making data of this study.

First, women appear to be the principal decision-makers in activities related to crop seed selection, use of organic manure, choice of food for daily consumption, giving small gifts and loans, and vegetable gardening and sales. Second, men hold the primary decision-making power in activities such as, use of chemical fertiliser, shopping for food, household necessities and clothing, education and medical treatment, sale of small animals, major household loans, and sale and purchase of land and major animals. Third, while women are the principal decision-makers in some ethnic groups in activities such as the use of exchange labour, use of wage labour, allocation of household labour, choice of crop and keeping household cash, men are the principal decision-makers in some other ethnic groups for the same activities. Fourth, there is equal power of women and men in making decisions about religious and social obligations, and disposal of household production. The fifth and the final observation is that men are the principal decision-makers in activities that involve cash, while in other activities both women and men hold the decision-making power depending on the nature of the activity and their ethnicity.

Shtrii Shakti (1995) also reports similar results regarding the decision-making power of the women and men of Nepali villages. The study notes that women's household decision-making input in a given community is directly related to the strength of the inside/outside dichotomy. To varying degrees, the 'inside' (private domestic sphere) is characterised as the proper domain of women and the 'outside' (sphere of politics, commerce and wider public concerns) are mostly ascribed to men. Women in dichotomous village communities (based on cultural and economic criteria) including the Parbatiya and Maithili ethnic groups, have considerably less control in terms of decision-making than those in non-dichotomous communities including the Lohorung Rai, Baragaonle and Kham Magar ethnic groups. The Newar Tamang and Tharu ethnic groups fall between these two categories.

One major difference between the findings of Acharya and Bennett (1981) and of Shtrii Shakti (1995) about the decision-making power of women and men in rural Nepal is that the former demonstrated a strong relationship between women's level of input in the outside economy and decision-making process in the household while the latter shows an increase in male control over decision-making (61.7%) and a corresponding lessening influence of women (29%) over those decisions. The Shtrii Shakti study notes that with a money-in-hand system some women prospered more financially and invested in their personal needs while some women did not feel improvement in their decision-making power. Nonetheless, the study concludes that because women are showing remarkable disagreement with the choices and decisions made by men as indicated by 58% women showing such dissatisfactions in rural areas, it can be expected that gaining a little more power or status, they would be able to control more decisions in the future.

Unlike women's relatively influential roles in decision-making at the household level, the rural women's decision-making power at the village level is insignificant in Nepal. This is mainly because the village level decisions are mostly made by Village Development Committee (VDC), which consists of 11 members elected by the local people, where the chances of women being elected are bleak due to their poor education, lack of experience of similar work in the past and thus lack of confidence, and lack of access to and control over family property and other resources that could be used for contesting elections. As NSAC (1998) also reports, low income earning opportunities together with absence of right to property has limited the role of Nepalese women in decision-making about the allocation of household income. Lack of decision-making power has deprived Nepalese women, more than men, of the basic elements of a decent life such as food and nutrition, education, skill development, and health and family planning. This has ultimately undermined these women's access to gainful employment opportunities, participation in professional jobs and mainstreaming in the developmental and political processes. This issue of women's limited role in decision-making at the village level is dealt with in detail in the next chapter which examines Nepali women's roles in decision-making at various levels - national, district and village.

4.3.5 Factors Influencing Gender Roles and Power Structures in Nepali Villages

The discussions presented in the earlier sections show that the status of women in Nepal in terms of various social indicators, the types of activities they have been undertaking, their access to and control over family income, and their decision-making power in the household and the community, irrespective of whether they are rural or urban, is far below men. There are a number of social, cultural and legal factors contributing to such unequal status of women in relation to men in Nepal. This section attempts to highlight some of such factors in more detail so as to set a proper context for the subsequent analysis of the roles of women and men in the selected agencies and their water projects.

Gender is a key locus of the cultural structure in Nepal as in many other countries. Caste, ethnicity, class, age, place, etc., normally mould the construction of gender and gender relations in Nepalese societies, which usually put men in advantageous position over women. These elements are reinforced by the patriarchal structure prevalent in Nepal contributing to an unequal level of life opportunities and attainments between women and men. As the 'Nepal Human Development Report' (NSAC, 1998) notes, the ideologies of patrilineality and patrilocality have manifested high ritual and other values, including the right to inherit family property, to sons over daughters; pronounced emphasis on gender specific socialisation and highly gender segregated access to household productive resources, income and, to a certain extent, household decision-making and schooling; paid economic participation; and unequal access to public decision-making structures and public facilities. Given such poor future images of Nepalese women, few parents expect their daughters to earn an independent living and to support them during their infirmities and old age. These structures and rules of social organisation in Nepal have wide and intense ramifications on the life experiences of the two genders, which ultimately give sons, the men, more power than to daughters, the women. Some consequences of such ramifications, which are more visible in the rural areas than in the urban areas, are as follows:

The poor, uneducated rural people, dependent on their subsistence-based agriculture, pay less attention to the health of their daughters resulting in significantly higher infant and child mortality rates among daughters compared to sons, as explained earlier in Section 4.2. Because the parents have less hopes of receiving any support from their daughters during the

former's old age and infirmities, as is the culture in Nepal, they are not much motivated to invest their limited resources on their daughters' schooling and thus, the girl child, as reported by NSAC (1998), spends approximately 1.4 times as much as a boy in household chores, including sibling care and farm work. Even in cases where girls get to go to school, their educational participation ratios and rates get skewed at the higher levels of schooling and colleges. Such a parents' bias attitude towards not investing on girls' education is further compounded by the other cultural norms which prescribe early marriage, early childbirth and high fertility rate, as discussed earlier in this chapter. This, in turn, has produced skewed distribution in employment, income and other opportunities in the non-traditional sectors as well. The miniscule representation of women in civil service, judiciary, politics, and the private sector, as explained earlier, is the result of the poor investment made on girls' schooling by their parents. This all shows that by the time a girl reaches to the age of becoming an adult and being married, she would have internalised that her world is inside the home and farm performing all those activities, labelled as 'secondary' as they do not yield direct income, that are necessary to maintain and to upkeep the male-dominated societal system.

The lack of the feeling of self-identity and dignity gets more perpetuated after a woman gets married and expected to leave her parents' home to go to her husband's home (except in a few ethnic groups), where she is socially, culturally and economically restricted from participating in any outside home activities without approval of her husband. As in her childhood at the parental home, the woman does not get proper health care even in her affinal home as depicted by high maternal morbidity and mortality rate. For example, the MOH (1997) reports that only 10 per cent of all the mothers receive professional help during child delivery - with another 23 per cent being assisted by local traditional birth attendants who have varying, often questionable levels of skills; 44 per cent of all the new mothers do not receive any professional antenatal care; and at least 539 mothers die per 100,000 live births. Further, the still alive practice of polygamy, which is at present covers 6% of all marital unions, the high level of trafficking in women and the existence of various gender-based cultural regulations of ritual purity and pollution are the other socio-cultural factors affecting women's roles and status vis-a-vis power both in the households and the community.

These discussions show that discrimination against Nepali women by Nepali men starts right from the birth and this continues throughout their lives. Because of such discrimination the Nepali rural women cannot virtually exercise any power in terms of making-decisions on their own be it in the parental home or affinal home. This has obviously lessened women's involvement in making decisions at the village level as well, as has been briefly presented in the earlier section and as will be dealt in detail in Chapter 5. Because the VDC, the major decision-making body at the village level, is represented in the management boards of the local primary schools, the sub-health post/health post, and a number of other public bodies and development projects, the lack of women's involvement in the VDC does automatically exclude women's power in making decisions related to village development. Further, the fact that the development interventions are at present planned and implemented mostly through NGOs in Nepal and these NGOs are legally required to consult and work together with the VDC, while doing so within the jurisdiction of the latter, limits women's contribution in village level development activities due to their minimal or no participation in the VDC.

Realising the need to address such imbalance power relationships between the women and men, by supporting self-employment among the former and making them more productive, the government of Nepal initiated some nation-wide programmes such as Production Credit for Rural Women (PCRW) Project and the women component of the Small Farmers' Development Programme (SFDP) in the early 80s. Similarly, in the 90s, Rural Development Banks have been established to provide production credits to poor rural women. However, the scale of credit intervention and its quality has not been adequate leading to further widening of the gap between women and men in general and within the women and men of different categories in particular. Likewise, some legal reforms to increase women's participation in the political bodies at various levels, which hold most of the power of making major decisions that affect women's and men's lives, have been made by the government after the multi-party system that came into power in 1990. But again, such reforms that demand the political parties contesting elections at various levels to allocate certain seats to women have neither made this condition compulsory at all levels nor have they been able to ensure women's representation in various political bodies at different levels since the women, who contest the elections, may not get elected, as will be discussed in detail in Chapter 5.

One underlying factor for this failure at the government level, as reported by NSAC (1998), is that these interventions are peripheral: they do not address the larger economic, political and cultural issues which continue to subordinate women. Illustratively, a policy emphasis on income generation among women necessarily produces very limited results without a concurrent legal and cultural emphasis on the personal property rights of women.

Overall, it can be concluded from the above discussions that the patriarchy perpetuated by the religion and culture prevalent in Nepal views women's lives as 'incomplete' without entering into a life-long dependent relationship with particular categories of men, principally a father and a husband. The process of ensuring completeness to a woman and making her fully dependent on men begins in the early childhood. While a male child is socialised giving images of future independent work-life, a female child is socialised giving images of a dependent married life. These images are further crystallised and concretised with the advancement of childhood through formal education, work routine, social interaction, valuations, and above all, male-female relationships. Formation of gender identities sharply diverges by the end of childhood and lets girls enter into a dependent adulthood relationship with men who hold all the power that shapes women's and men's lives. In turn, the adult Nepalese women, in relation to their men counterparts, find themselves restricted with no or limited power in terms of their roles, status, functions, making major decisions, etc. be it in the households or community as can be seen from the roles of women of the selected research communities discussed in the subsequent chapters.

4.4 Description of the Selected Institutions and Research Communities

This section introduces the agencies selected for this research and the communities where the field work for this research was undertaken.

4.4.1 Description of the Selected Institutions

A review was carried out of the significant institutions which are currently active in the drinking water sector in Nepal and, using criteria presented in Box 9, four projects from three institutions were selected for the research. These are: Nepal Water for Health (NEWAH) - a Nepali NGO funded by the British NGO WaterAid; Rural Water Supply and Sanitation Project (RWSSP), funded by Finnish International Development Agency (FINNIDA) - a

bilateral agency; and the Asian Development Bank (ADB) funded Fourth Rural Water Supply and Sanitation Sector Project (FRWSSSP) of the Department of Water Supply and Sewerage (DWSS) - a government agency. A brief description of the three institutions and of the projects which they are supporting follows. More information about institutional policies and practices will be found in Chapter 6 and Appendix 6.

Box 9: Process for Selecting Institutions to be Studied

- Preparation of an inventory of the institutions - NGOs, INGOs, Bi-lateral and Multi-lateral Agencies and government - that are involved as a generalist or specialist in assisting or implementing themselves the drinking water projects
- Identification of the institutions which have water and sanitation projects in the rural areas of the hills and the Tarai of Nepal
- Listing of the institutions which are mandated to design and implement water and sanitation projects applying a participatory methodology
- Stratification of the institutions which have a GAD or WID policy and objectives related to undertaking of water and sanitation projects
- Identification of the institutions which have a separate women's cell or office to promote women or gender related activities in the water and sanitation sector
- Verification of the interest of the potential institutions to collaborate in the research work and their categorisation

NEWAH: NEWAH is a non-government, non-political and non-profit making organisation, affiliated to the Social Welfare Council - the governing body of the NGO sector in Nepal. It was established in 1991 by the initiatives of WaterAid, a British charity working towards better hygiene and safe water for people in developing countries. WaterAid began its operations in Nepal in 1986 with a joint project known as "Decade Cell" with the then Social Service National Co-ordination Council (SSNCC). In 1991, following Nepal's return to multiparty democracy, the joint project could not be continued due to the SSNCC's effectiveness being limited by the bureaucratic muddle and political machinery. Consequently, WaterAid, with support from some Nepali development practitioners, initiated the formation of a local NGO, which was named NEWAH, to carry out its activities. NEWAH, run by an executive committee composed of seven members, who are elected by the general council, receives major funding from WaterAid, and partial funding from UNICEF. With a major change in the policy within UNICEF, its support to NEWAH has

been drastically curtailed since 1995. On the other hand, the Department for International Development (DFID), formerly Overseas Development Administration (ODA), of the British Government has recently started funding to NEWAH.

The construction of gravity flow systems and protected springs in the hills, and installation of shallow or deep tube-wells and hand dug wells in the Tarai are NEWAH's major activities together with sanitation promotion, awareness campaigns for health and hygiene education, and construction of domestic latrines. In addition, other environmental sanitation measures, such as drying racks, garbage disposal pits, washing platforms and proper waste water facilities, are also made available to project beneficiaries. It implements water supply projects in selected rural areas of Nepal through its regional offices located in four out of the five regional development centres of the country namely, Biratnagar, Kathmandu, Pokhara and Nepalgunj in the Eastern, Central, Western and Mid-Western Regions respectively. In these four regional offices, NEWAH has about 145 staff comprising technicians, health workers, project management specialists and administrators. Initially, NEWAH used to implement its projects itself. However, recently, it has started to implement projects through locally based NGOs. Sometimes, it also implements activities in co-ordination with other institutions. The cost per capita is the major criterion that NEWAH follows to fund any project. Hence, NEWAH funds more tube-wells than gravity flow schemes since the cost per capita is cheaper in the former than the latter.

NEWAH has so far assisted approximately 103 local NGOs and 41 Small Farmers' Development Programmes (SFDP, a well known project oriented towards the alleviation of poverty in Nepal) and benefited 82,295 people from 143 gravity flow projects, 261,639 people from 2,234 hand-operated tube-wells, 8,000 people from 30 hand dug wells, 54,043 people from the sale of over 6,358 domestic latrines, and 300 people per day by establishing seven public latrines in semi-urban areas. It has also trained over 10,728 people from NGOs, SFDP groups and community groups in health related matters and system operation and maintenance (NEWAH, 1997). It is also involved in a participatory action research project for community management of water supply projects in partnership with the International Centre for Water and Sanitation (IRC), the Hague.

RWSSP: The RWSSP has been managed as a Nepali project with assistance from FINNIDA specialists, both local and expatriate, managed by Plancentre Ltd. of Finland. It was implemented in two phases. Phase I was a joint effort between the Government of Nepal, through the MHPP/DWSS and the Government of Finland, through the Ministry of Foreign Affairs/the Department for International Development Co-operation. In Phase II, however, the FINNIDA opted to run the RWSSP through the Ministry of Local Development (MLD)/District Development Committee (DDC) due to a clash of interest with the DWSS. While FINNIDA wanted to give the whole authority, including handling the project money, to the local water users committee (WUC), the DWSS had certain reservations about this mechanism. Phase I started in January 1990 and officially ended in December 1995. In this phase, the District Water Supply and Sanitation Office (DWSO) of the DWSS was responsible for the "hardware" while the consultant team was responsible for "software", in particular the extensive training programmes. The total cost of Phase I was Finnish Mark 50,535,185 (6.06 million Sterling Pounds) (RWSSP, 1989; RWSSP, June 1996; RWSSP, December 1996; RWSSP Work Plan, 1997/98).

The focus of Phase I was to strengthen the institutional capacity of the DWSOs in health education, community participation and sanitation along with the provision and promotion of the use of safe, sustainable water supplies and improved sanitary facilities to 100,000 population. This target was later changed to 175,000 covering all six districts of the Lumbini zone in the Western region of Nepal. To achieve this target, the project had set out five components: district water supply development plans, physical improvements, socio-economic studies, hygiene education and sanitation, training and human resource development, and community involvement. By July 1996, a total of 234,052 beneficiaries received improved water supply facilities. The population coverage was over 230% of the original target (RWSSP, 1996). Although the RWSSP was focusing both on water and sanitation and health activities almost half of the project cost in Phase I was spent on physical improvements and implementation (47.42%) (RWSSP, 1996).

The development of a step-by-step approach for systematic community involvement in all phases of projects including the planning, implementation, operation and maintenance of community schemes was one major outcome of Phase I. Similarly, the initiation of health and

sanitation programmes, based on education as well as physical improvements, in order to change the knowledge, attitude and practices of the inhabitants for improved health and hygiene benefits was another positive aspect. Finally, the project was also able to learn extensively about training and capacity building at community level in activities included in the step-by-step approach. However, the two very weak parts of Phase I, as reported by Tiwari (1998) were the lack of institutionalisation in the DWSS, which had the mandate to plan, coordinate and manage the water supply and sanitation sector, and the low level of capacity building of beneficiaries and of their representative institutions. These were then made the focus of Phase II with additional efforts for the involvement of private sector agencies.

Phase II started in July 1996 and ended in June 1999. This phase aimed: i) to strengthen DDC's and NGOs' capacity in planning, co-ordination and management of the water supply and sanitation sector in the district, ii) to provide community water supply and sanitation services through NGOs in the overall framework of decentralisation and privatisation, and iii) to complete the remaining works of Phase I. Implementation has been planned on a district by district basis for maximum impact. The project is targeted in the hardship areas which are defined in terms of service level criteria. A demand-led participatory process of scheme-identification is followed. Community involvement in all activities is assured through a step-by-step approach. Environmental sanitation and gender concerns are included as an integral part of the planning of the schemes. Local NGOs have been used as support organisations to support users committees in order to make them capable of private sector service delivery. The total budget of Phase II is Finnish Mark 17.42 million and Nepali Rupees 58 million (a total equivalent to 2.67 million Sterling Pounds).

FRWSSSP/DWSS: The DWSS under the MHPP was formed in 1972 when the community water supply function was separated from the Department of Irrigation. Since 1986, DWSS has been formally appointed the leading sector agency and made responsible for overall sector planning, co-ordination and technical standards. Its nominal mandate in water supply is planning, design, procurement, and construction of water supply schemes covering areas with 500 or more people. To help the DWSS meet the goal of the Government of Nepal of providing safe drinking water to the total population by 2002, the ADB has given four soft

loan packages to DWSS. The First and the Second Sector Projects, which consisted of 187 sub-projects, commenced in 1985/86 and the Third Sector Project, which consisted of 385 sub-projects, commenced in the year 1992/93. The projects which were complete under the First, Second and the Third Sector Projects have already been handed over to the respective WUCs.

The Fourth Rural Water Supply and Sanitation Sector Project (FRWSSSP), which consisted of 335 sub-projects, commenced in 1996/97. The FRWSSSP aims to address and improve potable water supply and sanitation deficiencies in about 1,500 rural communities in 40 districts from three development regions, namely Eastern (15), Mid-Western (16) and Far-Western (9). The project period covers January 1997 to December 2001. Partners involved in the implementation of the FRWSSSP include 1,500 socially and economically disadvantaged rural community groups, DWSO Engineers, Overseers and Technicians, Members of the DDC, and NGOs where present. The project is assisted by a multidisciplinary group of 17 national advisors in social science and technical fields, including economics, public health, and engineering. All but two of these advisors are located at Regional Project Management Offices (RPMOs). Each RPMO is staffed by a team of seven professionals in Engineering, Sociology and other fields. The total cost of the project is US$ 26 million i.e. 17.68 million Sterling Pounds (HMG/Nepal, 1996a).

The FRWSSSP places special emphasis on capacity building both at community and organisational levels, sustainability, community awareness, water use, hygiene education and sanitation, and institutionalisation of the process. Regular monitoring and assessment is designed to ensure timely performance and timely remedial measures to improve performance. Hence participatory monitoring and evaluation is also one of the important aspects and integral to the FRWSSSP. The major programme components of the FRWSSSP include: community awareness and education, water supply and sanitation development, and institutional strengthening.

4.4.2 Description of the Research Communities

This section describes the two research areas, Motipur and Magaragadhi Drinking Water Projects, selected from NEWAH and one each from RWSSP (Gajedi Drinking Water Project)

and FRWSSSP (Hile Drinking Water Project). The two NGOs, Gramin Sewa Sangh (GSS), and Mahila Punaruthan Samuha (MPS), NEWAH's local partners in Motipur and Magaragadhi projects respectively, are also described. These projects were selected after a series of consultations with the senior officials of the three institutions on the criteria developed for this purpose (Box 10).

Box 10: Criteria for Selecting Projects

The following factors were considered while selecting the project(s) from the three institutions selected for this research:

- Project which has both rural water supply and sanitation components,
- Project which has WUC with women as its members,
- Project which was started after 1990 so as to ensure that gender issues were considered while designing the project,
- Project which is in operation for at least a year or near completion so as to be able to find out the details of women's and men's participation in all stages of the project, and
- Project which is accessible, safe, requires relatively limited travel time and has no political or any other problem.

Motipur and Magaragadhi Drinking Water Projects: These projects lie in Motipur and Magaragadhi VDCs respectively in Tarai (plain flat land) of Bardiya district in the Mid-Western Development Region of the country. While the Motipur project covers all wards apart from ward 2 in the Motipur VDC the Magaragadhi project covers all nine wards in the Magaragadhi VDC (see maps in Appendix 2). These VDCs are located at a distance of 35 to 55 kms. from Nepalgunj, the regional headquarters of the Mid-Western Development Region where there is a plane service from Kathmandu, the capital city of Nepal. From Motipur, it takes three hours on bicycle, while from Magaragadhi it takes six hours on foot during summer and two hours by bus during winter to reach Gularia, the district headquarters. (For detailed information see Table 4.1.)

Gajedi Drinking Water Project: This project of RWSSP lies in Gajedi VDC, also in the Tarai of Rupandehi district in the Western Development Region of Nepal (see map in Appendix 2). The research was carried out in Belbhariya, ward 2. The VDC is located at a distance of 23 kms. (19 kms. to Basgadhi on the East West Highway and 4 kms. to the VDC

passing via a motorable dirt road) from Butwal, where the main office of the RWSSP is located. It takes one and a half hours by bicycle to reach Butwal, the nearest town from the village. (See Table 4.1 for detailed information.)

Table 4.1: Background Information of the Research Communities

Information/Site	Motipur	Magaragadhi	Gajedi	Hile
Altitude	300m	300m	Not Available	1,160-1,350m
Area	132 sq. km.	118 sq. km	1,400 ha.	Not Available
No. of Households	3,069	2,822	1,530 (275)	860 (360)
Population	16,880	15,520	9,515 (1,577)	5,160 (2,160)
Ethnic Groups	Tharu, Brahmin, Chhetri, Blacksmiths, Tailors	Tharu, Brahmin, Chhetri, Goldsmiths, Magars	Magar, Tharu, Chhetri, Blacksmiths	Tamang, Chhetri, Magar, Brahmin, Tailor, Blacksmiths
Major Occupation	Agriculture	Agriculture	Agriculture	Agriculture and business
Major Crops	Rice, mustard, wheat, maize, gram	Rice, wheat, maize, oilseed	Rice, wheat, maize	Rice, wheat, maize, millet
Language	Nepali, Tharu	Nepali, Tharu	Nepali, Tharu	Tamang, Nepali
Major Transport	Bicycle and bus	Bicycle and bus	Bicycle and bus	Bus
Project Type	Point source	Point source	Point source	Gravity flow
Types of WUC	Women only	Mixed	Mixed	Mixed
Offices	Agriculture, bank, children's home, post office, health, veterinary, police, telecommunication, schools, VDC and NGOs like BASE, Help/Nepal, GSS	Health post, forest, police station, bank, telecommunication, 3 each of public and private schools, VDC, and a NGO called MPS	RWSSP, NGOs such as Nirdhan, REDO/CAPT, Red Cross, NEWAH, Swabalamban, 7 public schools and 3 private schools, VDC	Bank, post office, police station, depot of cigarette factory, army camp, 3 schools and a NGO called Reukai

Note: The figures in parentheses are only for the area covered by the projects in these two communities.

Hile Drinking Water Project: This project of FRWSSSP covers ward 1 (known as Hile) of Dhankuta Municipality of Dhankuta district in the hills of the Eastern Development Region (see map in Appendix 2). Hile is located at a distance of 13 kms. from Dhankuta, the district headquarters. A blacktop road which connects Hile with Dhankuta passes through it and ends in the middle of it. Bus is the only form of transportation in Hile. It takes about 45 minutes to reach Dhankuta by bus. The climate in Hile is semi-tropical. The average temperature is 31 degree centigrade while the average annual rainfall is 1,850 mm. especially in the months of June to September. Tamang is the major ethnic group occupying nearly 75% of the households. The literacy rate for Dhankuta Municipality including Hile is 39%. (For detailed information see Table 4.1).

Gramin Sewa Sangh (GSS): The GSS, a NGO based in Motipur VDC, was established in 1992. It is registered at the District Administration Office with the objective of engaging in community development activities. There are a total of 110 general members of whom 12 are women. For the daily routine activities, an executive body of nine members, which includes one woman, has been formed. It was reported that only three male members, who all come from within the VDC, are active in running the NGO. Since its formation, the GSS has undertaken a number of activities including adult literacy classes, goat raising, pig raising, distribution of smokeless stoves, a savings and credit programme, a co-operative programme, drinking water, health and sanitation, literacy classes, etc., mostly with a focus on women. During this period, it was supported by one UN volunteer for two years. The basic objectives of the NGO are as follows:

- To raise general awareness of women
- To involve women together with men in development activities in the community
- To organise women to contribute directly in social, economical, political, educational and cultural sectors
- To bring about social change in the community
- To implement women's and children's health education programmes

As reported by NEWAH and the GSS officials, the past performance of the GSS and its emphasis on women related activities were the reasons why NEWAH selected GSS as its local partner while implementing the Motipur project.

Mahila Punaruthan Samuha (MPS): The MPS, based in Magaragadhi VDC, was established as an NGO in 1994. The MPS is registered at the District Administration Office with the objective of implementing literacy classes, skill development activities and general village development activities focusing especially on women. There are 252 general members and 7 executive members - all women. The idea of opening a women led NGO came from the realisation of 6-7 women who work for an NGO called Rural Reconstruction Nepal (RRN). While working with RRN these women realised that most Nepali NGOs are male dominated and hence, women's needs and problems are not fully met. Despite a large number of NGOs in the country there was no improvement in the status of rural women. These women thought that by opening an NGO with only women they can meet the genuine needs of poor rural women, can make rural women aware of their potential and prepare them to be involved in various activities to improve their status. Basically, women's empowerment was the motto behind the establishment of this NGO, which was the reason for NEWAH to select them as their local partner in implementing the Magaragadhi project.

4.5 Research Methods

After a review of literature to find out the gender issues prevalent in the water sector at various levels - international to community, a decision made on the conceptual framework to be followed to analyse the collected information and to guide the field work, and the selection of the agencies and their drinking water projects to be studied, the next task was then to decide which of the quantitative or qualitative research techniques should be followed in order to collect the necessary information required by the research. The following section discusses briefly the usefulness of one research technique over others.

4.5.1 Qualitative vs. Quantitative Research Methods

Regarding the usefulness of qualitative and quantitative research methods Nichols (1991) notes that quantitative research methods have been mainly suggested at times when someone wants more precise, statistical answers to carefully defined questions on topics which are

thoroughly understood; they are powerful tools for collecting a broad range of standard information on a large population. These research techniques can give precise estimates because of the use of statistical methods and hence can be used to assess the reliability of the results as well. On the other hand, qualitative research techniques are often chosen when time and money are short. They are essential in exploring community attitudes and priorities and when dealing with socially sensitive topics in depth. They can give a rich understanding of community life, beliefs and norms. These techniques are useful for learning from the people in the community.

From a review of the works of various authors, as mentioned below, it becomes clear that quantitative approaches can best be followed in studies that seek more numbers, counts and quantities and that need more statistical validation while qualitative approaches are suggested more in cases where the focus is more on finding people's attitudes, behaviours, norms and values that cannot be quantified (Berg, 1989; Bogdan, 1972 in Berg, 1989; Dabbs, 1982, Nichols, 1991). One main criticism that comes out from the literature on research techniques is that a qualitative approach is less scientific than the quantitative one. In turn, Berg (1989) argues that even though the practice of the qualitative research is sometimes criticised for being non-scientific, the virtue of qualitative research is seldom questioned since it properly seeks answers to questions by examining various social settings and the individuals who inhabit these settings. These techniques provide a means of accessing unquantifiable facts about the actual people researchers observe and talk to. As a result, qualitative techniques allow the researchers to share in the understandings and perceptions of others and to explore how people structure and give meaning to their daily lives. Researchers using qualitative techniques can examine how people learn about and make sense of themselves and others which is so important to know as the success of any intervention in a society depends on this behaviour of the local people.

Arguing in favour of qualitative research, Bogdan (1972 in Berg, 1989) also notes that qualitative research has left its mark conceptually and theoretically on the social sciences. The lasting contributions to social understanding from qualitative research as well as the sheer number of contributing social thinkers are significant. In his attempt to differentiate between qualitative and quantitative approaches, Dabbs (1982) indicates that while quality

describes the usefulness and relevance of an action or event or a commodity, the quantity describes an amount of something. Quality refers to the what, how, why, when and where of a thing - its essence and ambience. Qualitative research thus refers to the meanings, concepts, definitions, characteristics, and description of things. In contrast, quantitative research refers to counts and measure of things. Highlighting the usefulness of qualitative research techniques Pratt and Loizis (1992) also note that these research techniques are valuable in studies that are exploratory in nature, that deal with individual decision-making matters, that require information both at the household and the community levels, and that deal with sensitive topics.

In view of these basic features of quantitative and qualitative research techniques, the latter were thought to be more useful in this research. Specifically, the following are the reasons for the selection of qualitative research techniques over quantitative ones in this research:

i) The research is process-oriented where the focus is on finding people's opinions, their norms and the values that determine their behaviours, and their interactions with each other, which all come out only through a series of interactions with informants; in all this process, the emphasis is always on finding out answers to 'why' aspects of the issues that emerge from the discussions. ii) This research is exploratory, as it attempts to explore gender issues at various levels - international to field level - in the drinking water sector. iii) This research required in-depth information both at the individual/household and the community level, which was possible only through close interactions with both women and men in the research communities. iv) In addition, the topic of this research, which is gender, is a sensitive one in the context of Nepal, where patriarchy is deeply rooted in everyday life, and thus it was essential to collect information informally. v) A large amount of information required by this research, especially at international and national levels, had to be collected from secondary sources, which then had to be linked with that collected at other levels - institutional and field - for verification of their validity. All these reasons demanded some lengthy, relaxed and open-ended conversations with women and men in the research communities as well as in the agencies selected for this research, which was possible only through qualitative research techniques.

In view of all the discussions presented above, the participatory rural appraisal (PRA) approach, which is a well known qualitative research technique in the development sector at present, was applied to collect information in this research. Some rationales for the use of a PRA approach and a brief discussion of the various PRA techniques used in this research are presented in the following section.

4.5.2 Participatory Rural Appraisal (PRA) Approach

The PRA techniques that were used in this research, along with activity calendars and access and control profiles, as discussed earlier, are: social mapping, semi-structured interviews, group discussions, key informant interviews, informal workshops, and observation. It needs to be made clear here that though the techniques used in this research have been put under the term 'PRA', the researcher was more active than the local informants since the purpose of the field work was not to plan any development intervention in the research communities. This contrasts with an ideal PRA exercise where the informants take the lead role, as the objective is to plan some activities for implementation in the communities. Nevertheless, the use of the term 'PRA' in this research can still be justified for reasons such as: i) the research topic, being a sensitive one in the context of Nepal, demanded a lot of efforts on the part of researcher for building good rapport and developing closer relationships with the local people, ii) a lot of analysis with regard to answering 'why' and 'how' aspects of the issues that emerged in the field had to be carried out in the research communities themselves which demanded a lot of interactions with the local women and men, and iii) some activities such as mapping and transect cum observation generated a lot of enthusiasm and curiosity among the local women and men to participate actively in the data collection and analysis processes.

Apart from these justifications for the use of the term 'PRA', the other reasons for the use of PRA techniques in this research are: i) a lot of flexibility is allowed in the PRA process, in terms of simplifying the questions, skipping some questions if the informants find them difficult, changing the informants in order to improve the research, changing the time of the visit if it is not appropriate to the informants, and changing any PRA tool if the local women and men find it difficult to understand. Because gender is a sensitive topic for discussion among people in Nepal in general and more so among people in rural areas, it was essential to have some flexibility in these activities, ii) for the same reason of gender being a sensitive

issue for discussion among rural women and men in Nepal, a lot of information had to be collected in an informal way and this was possible only through a qualitative approach such as PRA, as 'informality' is one of its strong features, and iii) the use of a PRA process can lead to the collection of qualitative information such as people's opinions, attitudes, values etc. that can answer to 'why' and 'how' aspects without which no further development interventions that are suitable to the local women and men can be planned, designed and implemented. The potential benefits of the use of PRA have been discussed in detail by Chambers (1994a and 1994b).

However, the PRA approach does have some limitations. Many practitioners (Cleaver, 1997; Regmi, 1995; Sarin, 1998) have reported a number of pitfalls in this approach and thus there is a need for a careful planning while following this approach. Some of the pitfalls reported by these authors are: it lacks reliability, precision and thus there is a danger of generalising from individual circumstances; it lacks quantification; it requires skilled facilitators who are not readily available; some people in the group may dominate discussions; poor and vulnerable people, especially women, might be reluctant to participate in the process due to socio-economic differences with others; etc. These limitations were taken into consideration while initiating the data collection activities and analysing the results of the field work at the community level. Some of these limitations of PRA approach were encountered in this research as well which have been discussed at the end of this chapter under the section on 'Lessons Learned'.

Aside from the various PRA tools mentioned above, which were used to collect primary information at institutional, project and community levels, a lot of secondary information was collected from an extensive review of literature at all levels - international to community - to supplement the information collected from primary sources. Due to the scattered locations of the data sources, the heavy intensity of the field work that required collecting information at various levels, the need to speak some local dialects, the topic of the research that required the bulk of the information to be collected from women together with men, a female research assistant was hired to help with the community level field work. The bulk of the information required by the research was collected between July 1997 and August 1998. Nonetheless, the

task of visiting the institutions in order to clarify the collected information and to collect some additional information, as required during the analysis stage, went on until July 1999.

A brief description of the detailed research methods is as follows:

Social Map: A social map of each project VDC was prepared to understand the village setting, water resources, settlement pattern, physical infrastructures etc. This map was of immense help to gain a clear idea of the community, access and distance to water resources of various households, as well as to verify the reported and observed information.

Activity Calendar: Activity calendars were prepared with male and female informants present in the group discussion in each research community to find out the gender division of labour between women and men. The activity calendars included all the activities that were undertaken by the household members from dawn to the time they went to bed at night. This calendar was useful not only to find out the persons responsible for fetching water but also to find out the impact of water supply projects in changing the traditional gender division of labour between women and men while carrying out activities both in the household and the community.

Access and Control Profile: This tool was used to collect information about women's and men's access to and control over various resources, and about decision-making on various household as well as community resources and activities. The sources of the information were the male and female key informants present in the group discussion. The information obtained from this tool was also useful in comparing the differences in access to and control over resources between the households participating directly in project activities and those who were indirect participants.

Group Discussions: Group discussions were held with men and women informants selected from user households. The purpose was to get insights into women's and men's roles and responsibilities at various stages of the project. The discussions with two sexes were held separately. The two groups were brought together when there were conflicts in their responses or when the number of user households per tap-stand/tube-well was small.

Semi-structured Interview: Semi-structured interviews were mainly conducted with office-bearers at the institutional and the project levels, NGO officials, local water users' committee

members and advisors, and caretakers from the selected tube-wells and tap-stands. The semi-structured interviews also took place with the people who were involved in different stages of the project, but were not holding any official position during the data collection period, so that a complete picture could be known about the women's and men's participation in project activities in all stages. The basic thrust of the interviews at the institutional, project and NGO levels was to determine gender sensitivity in institutional policies and practices. The interviews which took place with committee members and advisors, and caretakers/village maintenance workers (VMWs) was basically to solicit information about men's and women's roles in project activities, people's interest towards the project, men and women committee members' efficiency, and the status of operation and maintenance of the project.

Transect Walk and Observation: A transect walk and observation was made in all the research communities in order to gain an understanding of the village setting, the water resources situation, pipeline/tube-well distribution, settlement pattern, roles of men and women in water related activities, households' access to and use of water resources, etc. This activity was also useful in verifying the physical status of the project tube-wells/tap-stands and the measures taken to protect them. This technique also gave an opportunity for on-the-spot verification of the information reported by various sources at all levels - institutional, project and community.

Attending Meetings: A lot of useful information was collected by attending committee meetings wherever possible. Aside from knowing the contents discussed in the meetings this also helped to determine the extent of women's and men's participation in meetings, the dynamics in the group discussion, men's attitude towards women's opinions, and opportunities allowed to women to express their views etc.

Holding Workshops: Informal workshops were held with NEWAH and FRWSSSP to share and discuss the findings of the research. This activity helped not only to validate the information collected already from various sources but also to generate new information relevant for the research. The workshop participants included most of the senior officials and some support staff. This activity could not be organised with the RWSSP due to their phasing out in June 1999.

Use of Secondary Sources: Secondary sources such as books, research reports, project documents, policy books, journals, development plans, statistical profiles, internet etc. were extensively used to collect and analyse information related to gender issues at various levels, international to community.

4.6 Selection of Informants

The sources of information at the institutional and project level were head office, regional office, and project office staff (Table 4.2). Similarly, at the community level, the local women and men, local committee members and advisors, NGO officials, VDC officials, caretakers, female motivators and female health volunteers (FHV) were the sources of information. While the local women and men were selected from among the users of the tube-wells and the tap-stands installed in the research communities the others were selected based on their involvement in the project activities. Since the number of women was much less than men in all agencies, almost all of them were interviewed in this research (Table 4.3).

Table 4.2: Number of Interviews held at Head Office and Project Office Levels by Institution

Types of Interviewees\Agencies	NEWAH	RWSSP	FRWSSSP
Head Office-Male Staff	7	6	7
Head Office-Female Staff	6	4	8
Regional/Project Office-Male Staff	7	6*	14
Regional/Project Office-Female Staff	2	1*	4
Woman Engineers	NA	NA	4
No. of Group Interviews with Males	4	3	3
No. of Group Interviews with Females	3	2	3

Notes: * Includes the staff of the DDC and DPU NA: Not Applicable

At the national level, though the analysis was made on information obtained through secondary sources, 6 senior development practitioners and policy makers, 3 males and 3 females, were contacted for interview and verification of analysis. The purpose of interviews with all these people was not to quantify the information but to enhance the quality of the information, encompassing various perspectives. Because of the involvement of various stakeholders, at

different points of time from the conceptualisation of the project until it was handed over, a wide range of people had to be interviewed to achieve a clear picture. A list of the people contacted and interviewed for information required at various levels has been included in Appendix 3.

Table 4.3: Number of Group and Individual Interviews held at Community Level by Site

No. of Interviews\ Sites	Motipur	Magaragadhi	Gajedi	Hile
No. of Group Interviews with Males	6	9	7	5
No. of Male Participants in each Group	5-7	5-8	5-12	4-8
No. of Group Interviews with Females	6	9	7	5
No. of Female Participants in each Group	5-7	5-8	5-9	4-8
No. of Male PMC Members Interviewed	2*	3	11	6
No. of Female PMC Members Interviewed	9	9	3**	2
No. of Male Caretakers Interviewed	5	NA	2	2
No. of Female Caretakers Interviewed	6	9	7	NA
No. of VDC Officials Interviewed	2	2	3	2
No. of NGO Officials Interviewed	3	4	NA	NA
No. of FHV/Motivators Interviewed	2	2	3	3
No. of Tubewells/Tapstands Observed	6	9	30	11

Notes: i) * refers to male advisory board members, ii) ** refer that since there were one female WUC member and two female advisors, all three were interviewed, iii) NA: Not Applicable, iv) PMC: Project Management ommittee v) FHV: Female Health Volunteer

4.7 Types of Collected Information and Their Analysis

At the international and national levels, information has been collected on the water policies of some international donors that influence the water sector in developing countries, and the legislation and policies on drinking water of Nepal. At the institutional level, information has been collected following the institutional framework suggested in Chapter 3. As per this framework, the information at the agency level was collected on the policy formulation mechanism, objectives and strategies, personnel policy, organisational structure, organisational culture and management style, provision of gender training, funds and human

resources allocated for GAD activities, and role of change agents, if any. At the project level, information has been collected about the steps and procedures followed while implementing projects. Finally, at the community level, information has been collected following the conceptual framework of the five indicators suggested in Chapter 3. These indicators basically answer the extent of effectiveness of projects in meeting women's strategic gender interests in aspects related to the five indicators, namely women's participation in project activities, changes in the traditional gender division of labour, women's access to and control over resources (higher bargaining power), equity in sharing of benefits, and women's increased status and new development initiatives.

The checklists used to collect this information from various sources at different levels are presented in Appendix 4. All these checklists were first developed in English and later translated into Nepali language for convenience while collecting information.

Being qualitative research, the study has adopted a qualitative approach to the analysis of the collected information. The focus while analysing the information has been on the 'what', 'how' and 'why' aspects of each phenomenon. The collected information has been analysed at four levels: international and national, institutional, project and community - all from a gender perspective. As a requirement of the qualitative research techniques the preliminary analysis took place at the research site itself. To enhance the reliability of the information it was always cross-checked and verified with other sources, a feature of triangulating information. As Berg (1989) notes, 'the multiples lines of sight is called triangulation, a process by which researchers combine several lines of thought to obtain a picture of reality; a richer, more complete array of symbols and theoretical concepts; and a means of verifying many of these elements'. Similarly, Denzin (1978 in Berg, 1989) suggests that 'triangulation includes multiple data collection procedures, multiple theoretical perspectives, and/or analysis techniques as well'. Accordingly, in situations when conflicting information was reported by two sources, attempts were made either to bring the two conflicting groups together for an open discussion on the conflicting matters or a third source was explored to increase the weight of the information provided by one of the two groups. The findings of research studies carried out elsewhere have been referred to in order to support or question the findings of the present research.

4.8 Lessons Learned

In view of the nature of this research, which is exploratory and process oriented, it was decided to use qualitative research methods, especially a PRA approach, in this research. Accordingly, a number of PRA techniques such as social mapping, key informant interviews, group discussions, observation, semi-structured interviews were used to collect information as required by this research. However, the use of a PRA approach without understanding its limitations, which were discussed earlier in this chapter, can lead to unfruitful results wasting time and financial resources since some of those limitations were observed in this research as well. A brief description of those problems and the ways they were resolved is discussed below:

The problem of some people dominating the group discussions, which is one major criticism of a PRA approach, was faced in a number of group discussions held for this research. While the dominants were men against women in some group discussions, the male elites and women from higher economic strata were the dominants against poor men and women in some others. In all these discussion sessions, these dominant male and female participants talked most of the time themselves without giving any opportunity to other participants in the group to express their views. Because of the social and the economic status of these dominants, the other participants were not in a position to interrupt them. As a result, the discussions tended to be one sided. The other participants who did not get a chance to share their views felt that their presence was meaningless and thus seemed unhappy, which was amply clear from their facial expressions and side-talk held with other similar participants. When these participants were invited later for another group discussion session they did not turn up. Though the researchers were already familiar with this limitation of the PRA approach and held the impression that they could handle such forums, they could not do so in reality.

As a result, the researchers had to organise separate group discussion sessions including only those people who had similarity with each other. These separate sessions gave some new dimensions in the research. For example, the researcher, after the discussions with the people from the higher class, had the impression that the water projects have equally benefited all in the community. However, the discussions with those who are poor, vulnerable, marginalised,

from lower ethnic groups, and from female-headed households had different experiences of the water projects. Many of them had to walk longer to collect water, had not got opportunities to participate in project meetings, had to rely on traditional, unhygenic sources and there were a number of reasons for this unequal sharing of project benefits. These differences would not have come clearly if any methods, other than the qualitative ones, had been applied since the latter allows more time to dig out such differences among the local people, believing that these differences occur in every society due to the structure in which it is based. The qualitative techniques provided opportunities for an informal learning to enhance the quality of the collected information and to get a clear picture of the consequences of the selected water projects on the local women and men.

Moreover, the other advantage of the use of qualitative research techniques is that when the researchers share in the evening, the outcomes of the separate group discussions that are held with the local women and men in the research communities - a process that must be followed while applying qualitative research methods - they can sometimes find out that the results reported by the two groups are different. In turn, some mixed group discussions, including both women and men participants, have to be organised to find out the truth. For example, in the separate sessions with men and women informants in NEWAH and RWSSP villages, the men reported that the water projects have significantly saved women's time as compared to before while women reported otherwise. When these two groups were then brought together to verify their answers it became clear that the men were wrong as they did not in fact have a clear idea of how much time women were spending in various household activities, including fetching water. From this process, the men themselves realised the limited knowledge they had about women's activities in the household which would not have happened through the use of quantitative techniques that allow limited time with no provision for going back to the groups already contacted to verify the contrasting results.

Likewise, even in some sessions which had homogenous groups, one or two participants tried to lead the discussions without allowing others to express their views. Whenever this happened, the researcher and the research assistant had to signal to each other through eye language so that one of them would then request politely the person(s) dominating the group discussions to have a separate discussion with the researcher alone. Such requests were made

explaining to the dominant that he or she seemed to have a lot of knowledge on the subject matter, however, because some others in the group were also expressing their views simultaneously it was difficult for the researcher to take notes of what he or she was saying. This kind of strategic arrangement allowed the dominant to feel, on the one hand, that he or she was given due recognition of his or her knowledge so that he or she would have no objection to leave the group and hold the discussion with one of the researchers in private, and, on the other hand, allowed the rest of the group members to freely express their views. The other point that was noticed in the group discussions was that whenever any participant disclosed anything 'untrue' the other participants immediately corrected him or her as the research topic 'gender and water' was something in which everyone in the community had similar concerns. This mechanism of collecting rich information by creating group dynamism and the group itself correcting the wrong answers of any participant is not built in the quantitative research methods where the interviews are mostly held in 'one to one atmosphere' which does not allow the researcher to verify the answers of the interviewee except through the use of his or her own value judgement.

The other lesson learned from the application of PRA techniques was that the information collected from one source did not sometimes match with the information collected from another source. In other words, the views expressed by one group did not always represent the reality of the others. Hence, in order to ensure that the collected information represented the views of all in the research communities and to increase its validity and reliability by enhancing its quality, the process of triangulation was followed which allowed the researcher to collect information from various sources using various methods. This process of triangulation helped to combine several lines of sight so that the researcher could obtain a better and more substantive picture of the reality. This process helped to refine, broaden and strengthen conceptual linkages which could not have been done through the use of quantitative research methods alone. For example, the information collected from the various categories of women and men in the project communities and their comparison with the information collected from PMC or WUC members, NGOs, project staff and the implementing agencies gave a strong basis to judge whether the practical benefits of the water

projects can be sustainable without women's various strategic gender interests being addressed by the projects.

An equally important lesson learned from the use of qualitative research tools was that the use of tools such as social maps, transects and focus group discussion sessions, that required a number of women and men to participate in the information generation process, was found to be quite relevant in bridging the gap between the researchers and the community. Because of the transparency involved in the use of various tools where the local people could see what was happening in the community the local women and men were observed to be willing to discuss the research topic with the researchers. In turn, the researchers were invited by a number of local people even to visit their homes if the former needed any further information from the latter. The openness built in the use of qualitative research methods proved to be successful to overcome a number of social and cultural barriers which often limit the collection of rich and useful information, especially from women. One example is of Gajedi village in RWSSP area where the researchers, who had initially stayed in a small hotel located a little far from the village, were later invited by a woman WUC member to stay in her house which was in the centre of the village. The other family members, including her husband, were happy with the researchers staying in their house since they already had developed some trust in them due to the transparency seen in their information collection process. This event proved to be effective in organising group discussions with women alone, without going through the formal process of convincing men in favour of this activity, which could not have happened so easily in a quantitative research approach where there is not much time allowed to build up enough rapport with the local women and men.

The application of qualitative research methods such as PRA also allows the researchers to spend adequate time in the field to collect all relevant information that can better explain the what, how, why aspects of the research questions, to verify and cross-check the validity and the reliability of the collected information, and to observe the activities in the community to strengthen the richness of the sensitive information that could not have been easily collected through initial interviews. For example, in all the research communities, the initial impression obtained from the interviews with the local men was that the water projects have been able to meet all the needs and interests of the local men and women. However, the discussions that

took place with women alone, after a good rapport was built up with them, revealed this to be untrue. The women, especially younger ones, in NEWAH and RWSSP villages, said that they visit the water sources, located along the road side, to bathe and wash the under garments mostly in the evening when they are not seen by males doing this activity, while the women in FRWSSSP villages said that they do these activities at home, by fetching water several times, as they cannot do them in the evening at the water sources due to cold temperature. As the time passed by in the field, the researchers were themselves able to observe these activities in the respective communities and find out the reasons why the projects were not sensitive in meeting women's needs. However, in the traditional surveys, the researcher would not have had time to achieve such depth.

From this research, it also became clear from the discussions with people at various levels - national, institutional, project and community - that the policies and practices at the higher level affect the outcomes at the community level and thus, the need to explore the linkages between these levels. This task required multiple visits to these organisations to analyse the outcomes of the field work in relation with the existing institutional policies and practices, and to share with each other why certain things are happening at one level but not at the other, what are its consequences, and how can the situation be improved. This process demanded a lot of flexibility and informality in the information generation process as well as mutual trust between the researchers and the people providing information at various levels, which was feasible only through qualitative research methods.

What can be concluded from these discussions is that, despite some limitations, the qualitative research methods, such as a PRA approach, are suitable for this kind of research which aims to explore sensitive issues such as gender in the context of Nepal, where patriarchy is so deeply rooted in everyday life. The features of PRA such as informality, flexibility and triangulation facilitated the collection of very useful, rich and comprehensive information about gender issues at all levels. This would not have been possible following quantitative research methods that are mostly based on individual interviews with no group dynamics, on the use of limited sources with no possibility of traingulation, and on limited time, though these methods have several other advantages and uses as mentioned earlier. It is, however, essential that the researchers become fully aware of the potential problems that

might arise while using qualitative research methods prior to initiating the field work so that they can strategically resolve those problems without compromising with the quality of the work and offending anyone in the process.

The following chapters present an analysis of the information collected at the various levels in Nepal in the light of relevant, documented experiences from other parts of the world. Appendices 5, 6 and 7 give details of the information collected in Nepal and Appendix 8 presents a list of the action plans suggested for application in each level.

5. GENDER ISSUES AT INTERNATIONAL AND NATIONAL POLICY LEVELS

The purpose of this chapter is to examine the water sector strategies of some principal international agencies, such as the World Bank, Asian Development Bank (ADB), FINNIDA and WaterAid that influence the water policies of the national governments and NGOs, and legislation, development plans and water policies of Nepal from a gender perspective. The two main reasons for selecting these donors in this research are: i) these are the major donors in the water sector in Nepal and ii) the Nepali agencies that have been selected for this research are being funded by these donors and hence it was essential to look at the latter's policy documents since they can influence, because of their financial power, the plans and policies of the former. The discussions held with the officials of NEWAH, RWSSP and DWSS, and some policy-makers at the government level supported this fact.

The sources of information for analysis at the international level are the World Bank Annual Report 1995/96, ADB's Policy on Water 1998, WaterAid Strategic Framework 1996, various FINNIDA reports such as 'Looking at Gender, Water Supply and Sanitation 1994', 'Towards Viable Water Services 1998' and 'Finland's Experiences on Sustainable Water Management 1998'. Similarly, the sources of information for analysis at the national level are the Five Year Development Plans, Water Legislation, various Development Acts, National Water Policies etc. These written sources have been supplemented by discussions with some of the key staff in the relevant agencies and departments. The chapter ends with a summary of the strategies that might bring some improvement in formulating gender sensitive strategies to empower women and to improve the quality of the lives of both sexes.

5.1 Water Sector Strategies of some International Donors

The review of the water sector strategies of the above mentioned donors shows that these agencies are adopting the Dublin principles, as presented earlier, in Chapter 2, that put emphasis on demand-driven and cost-recovery approaches to water and thus that the resource should be treated as an economic good (World Bank-UNDP Annual Report, 1995/96; ADB, 1998; FINNIDA, 1994; Vikman, 1998; WaterAid, 1996). The main reason for the shift from a

supply-driven to a demand-driven approach is to make the beneficiary communities accountable to meet some capital costs and the full cost of operation and maintenance of water supplies. This decision was essential on the part of national governments as there was scarcity of grants from the international lending agencies, due to the farmer's inability to pay back the agency loans. In this situation, since it was not possible for the national governments to bear all the costs of a drinking water project starting from its installation to its operation and maintenance they had to move from a free-supply approach to a demand-driven approach (Garn, 1998).

The main argument for this approach is that users will be willing to pay a considerable proportion of their household income for improved water services if they perceive that they are adequate, better, and more reliable than the traditional sources (Whittington and Swarna, 1994). However, since women are traditionally responsible for undertaking all water-related activities, including that of meeting the water tariff, the implications that this approach will have on women are a matter of concern to advocates for women's advancement, development practitioners and to people and institutions working for social development. The following sections highlight some of these concerns:

i) One argument put forward for the cost-recovery approach by these agencies is that because local people will have better access to improved water services, in terms of their adequacy, quality, accessibility and multiple uses for domestic, agricultural and commercial activities that can increase their income, they will be willing to pay for the services (World Bank, 1995/96; ADB, 1998). However, because the households in general and women in particular are so poor in the rural areas of countries like Nepal, the idea that they will be willing to pay for the improved water services does not hold true even if the services are better than before, as is discussed below and in Chapters 6 and 7 in detail. Further, the argument of access to higher income by multiple uses of water to pay for the improved water services applies in water used for irrigation and for other commercial purposes which are possible in urban and semi-urban areas, but not in water used for daily household consumption in rural areas as it does not directly lead to higher income. For example, in Hile project area, which is a big commercial centre for people from adjoining villages and districts, the improved water is used for commercial purposes such as running tea shops, hotels and restaurants, and thus

women and men have been able to increase their income from their time saved from water hauling. This is not, however, the case in the other three selected project areas where improved water is used simply for household consumption. As a result, Boesveld (1994) and van Wijk-Sijbesma (1998), documenting the experiences of a number of countries, conclude that women, from such areas, will be compelled to go back to their unhygienic traditional sources, which can lead to the failure of such projects. This statement can be supported by one ADB experience, as presented in Box 11, which makes clear that because the local people, including women, did not have substantial income from the improved water supply they could not pay the water tariffs, which led to low success rate in this sector.

Box 11: Low Success Rate in Water Supplies

An assessment of completed projects based on 122 project performance audit reports and 18 recent project completion reports shows that the success rate, which was determined on the basis of a number of indices including economic internal rate of return, in the drinking water and sanitation projects between the periods 1968-1979 and 1980-1990 declined as against the success rate in hydropower and flood control and irrigation and drainage projects where either it increased or remained constant for the same period (ADB, 1998).

ii) The demand-driven approach emphasises the cost-recovery aspect of water so as to increase people's feeling of ownership towards the project and the chances of its sustainability. It does not, however, highlight the need to distinguish who in the family, men or women, are responsible for the payment of water services. It has been reported in many studies (van Wijk-Sijbesma, 1998) that because women undertake most of the water related activities in the household, the men in the family place lower value on spending on water, by taking it for granted that women should be responsible for it. These studies have also shown that men in general expect their women to pay the water tariff and women have been taking this responsibility in many projects around the world. However, the studies also report that there are many cases where women have been unable to do so, though they are willing, due to their lower access to and control over family income. Cleaver and Elson (1995) argue that the mis-match between the willingness to pay and the actual ability to pay puts women in a vicious circle - without improved water supplies they have no spare time for income generating activities, but without the income they cannot pay for new facilities. What can be said from such gender insensitivity in the water policy is that women are under pressure

either way - if they want to use the services they have to work very hard to pay for them; if they do not use the services they have to walk long distances to collect water.

iii) Another argument of the demand-driven approach is that the delivery of water services should be delegated to autonomous and accountable public, private, or co-operative agencies for an appropriate fee (ADB, 1998; World Bank, 1995/96; Vickman (1998) talking about FINNIDA). However, because the private sector normally runs for profit it will naturally look at water as a commodity for profit, and hence, will not be concerned about the financial limitations of poor people, especially women in general and women from female-headed households in particular. Supporting this argument DFID (1998) recommends that in order for the private sector to be accountable to the poor there is a need to monitor the level of service provided to the communities in great detail against appropriate indicators, before and during private sector participation. Further, the contract with the private sector should include appropriate clauses which make the former accountable for meeting poor people's needs.

Though FINNIDA (Vikman, 1998) and the ADB (1998) have briefly stated that there is a need in particular cases to subsidise services to the poorest among the projects' beneficiaries they have not made it clear how such subsidies should be provided nor who should provide them. There are many cases where the benefits of subsidies have been controlled by the well-off households rather than the poor ones, in the absence of proper mechanisms for subsidies (van Wijk-Sijbesma, 1998). As a result, poor rural women cannot come forward with any demand to benefit from the better services that the private sector provides. If in some cases, they do, this will be at the cost of giving up their other requirements that are essential for their survival. There are many experiences from different parts of the world where poor households in general and women in particular have tremendously reduced their domestic use of water for health and hygienic purposes, inviting a lot of implications on their health (Cunninghame and Laws, 1996; Kwaule, 1985; van Wijk-Sijbesma, 1998). DFID (1998) also supports the position that high water tariffs may result in cutting food, nutritional status and other consumption, inviting health risks. Hence, the poor need to be subsidised.

iv) The other argument put forward for the cost-recovery approach to water services (World Bank, 1995/96 and ADB, 1998) concerns the enormous health benefits to the family, especially to women and children, which arise from more efficient and effective water

services. Tadle (1990) argues that the strongest and the most frequent argument put forward for expenditure on domestic water supplies is the observed correlation between better water and health; several studies have shown that differences in water quantity or quality are associated with differences in morbidity. However, the fact that there will be improvement in women's health as a result of the reduction in their water fetching time will not be so valid in the absence of mechanisms to share women's work by men, as experiences from this research, as presented in Chapter 7, and others (Mustanoja, 1998) show that the use of water tremendously increases along with its nearness to home. Further, the fact that women will not be able to pay the water tariff and thus may not get the improved services will naturally distance them from all health benefits.

v) The demand-driven approach encourages those, who are willing and able to pay, to come forward with a demand for water. This implies that water, as a commodity, will be used more by bigger factories and industries at the macro level, as they can make money in different forms from its multiple use. At the micro level, men are willing to pay for water as they use it for productive purposes such as irrigating crops, which has, in fact, compelled women to go back to their traditional sources located at a far distance (Boesveld, 1994; van Wijk-Sijbesma, 1998). Because of these two uses, the domestic use of water receives lower priority, which can have a number of effects on women: i) they may have to walk longer distances to fulfil the domestic need for water, ii) the lower priority in drinking water can lead women to continue using their unhygienic traditional sources affecting the lives of millions of poor rural people; iii) it ignores women's established role as carers for family health; and iv) it can also affect the employment of millions of women world-wide who are currently employed in the health sector and the possibilities of their contribution to the formulation of gender-aware policies. van Wijk-Sijbesma (1985) and Cleaver and Elson (1995) argue that the shift in emphasis from health to economic aspects of water has undermined the recognised role of women as informal hygiene educators at the household level. This shift has affected women more than men as the former are more active in the health sector than the latter; with this shift, there is a possibility that the number of women working in this sector will be reduced. The ultimate result is that the chances of women's higher participation in the formulation of gender-aware water projects and water policies will be reduced.

vi) The donors also argue that water supplies are more likely to be sustainable when communities make decisions about the services that they want (World Bank, 1995/96; ADB, 1998; FINNIDA, 1998). They also note that since women usually manage household services, they need to be involved in decision-making about these services. However, the weakness in this argument is that it does not explain how this should be done, especially in the case of women from developing countries where patriarchal biases, as discussed in Chapter 4, are so strong against allowing women to be involved in activities outside the home. For example, experiences from countries such as Nepal show that women in general are not included in the local committees responsible for the management of water supplies and even when they are involved their number is very low (IDRC, 1985; Carloni, 1987; IRC, 1994; Mustanoja, 1998; van Wijk-Sijbesma, 1993 and 1998). The chances of women from female-headed households being involved in the management of water supplies is even less, as they always have to struggle with their meagre resources to meet the various family needs, and hence, there is no question of their being able to pay the water costs nor of their getting involved in the management of water supplies (Box 12).

Box 12: Women's Presence, a Tokenism, in Local Water Committees

In a local water committee that consists of 11 members in Gajedi village of Rupandehi district in West Nepal, only one woman is included by men as a member. Similarly, in Hile village of Dhankuta district in East Nepal, two women have been included by men in a committee of 13 members. All these women are relatively better-off than many other women in these villages. Because these women have not experienced the difficulty of collecting water, spending hours of walking, unlike many other women in the community they seldom come to the meetings. Even when they come they find it strange to speak in presence of a committee composed almost entirely of men. Interestingly, in the case of Hile village, the two women selected as members in the committee, did not know for months that they were selected by men to be in the committee. The reasons that came out from discussions with men for not including women in the committees are: they are illiterate, they are good for household chores, they lack experience, they do not have exposure, and hence, lack the decision-making ability.

In turn, the lack of women's involvement raises questions about the sustainability of the water supplies, as discussed in greater detail in Chapter 2. This discussion also raises suspicions about the long-term benefits that people can receive from the massive investment in the drinking water sector in the 1990s by various international agencies such as UNDP (US$ 192 million); World Bank (over US$ 21 billion during the 1990s) and many others like

UNICEF (US$ 220 million just in 1994-1996) etc. (UNO, 1998), if women continue being bypassed in the management of water supplies.

vii) The lack of gender sensitivity in the sector strategies of the donors (World Bank, 1995/96; ADB, 1998) can also be noticed from the fact that they have not been able to differentiate the roles of women and men in water supplies, as they have frequently used terms such as 'people', 'users', 'community', 'stakeholders', 'beneficiaries', 'poor', etc. assuming that women and men have the same needs and concerns and can benefit equally when new water supplies are implemented in their communities. However, recent experiences, as shown in Chapter 2 and as will be shown in the forthcoming chapters, prove that women and men have different needs and they need to be dealt with separately. For example, in its section on capacity building, ADB (1998) does not specify the need for building the capacity of local women more than that of men, though the former's involvement in operation and maintenance of water systems has been proven to be an effective means of achieving success (IRC, 1992; Fong et al. 1996). The same is true in the case of WaterAid (1996) which has mentioned the role of women only once in its strategy document. The implication that can be drawn from the use of terminologies that appear to be gender neutral, but which are not in reality, is that they can again distance women from meeting their practical needs as well as their strategic interests. In this regard, some other authors (Cleaver and Elson, 1995; Cleaver and Jobes, 1996) also argue that in many cases donors' policy statements tend to be vague and consist of catch-all-phrases that offer little concrete guidance at the implementation stage. Project staff who have technical expertise may be unfamiliar with these catch-all-phrases, and therefore lack the skills, or willingness to put policy recommendations into practice. This is made even worse by project documentation which continues to talk in gender neutral terms referring to the 'community', the 'users' and the 'consumers'.

viii) The vision, aims and objectives of the World Bank (1995/96), ADB (1998), FINNIDA (Vikman, 1998) and WaterAid (1996), which determine their strategies, programmes and other policies, do not mention anything specific about improving women's lives or meeting their strategic gender interests per se. Though the FINNIDA documents are more gender sensitive than others they seem to have been concerned with women's participation mainly

for the effectiveness of projects rather than meeting women's strategic gender needs for their overall empowerment. This has led to the formulation of strategies that cannot properly address women's and men's concerns. For example, the strategies developed to fulfil WaterAid's one objective of helping partner organisations develop their capacity to undertake integrated water projects do not specify the need to develop their skill and ability in gender analysis and in addressing gender issues in the projects. They also do not specify how women's strategic roles can be enhanced to ensure that the projects become effective in meeting both their practical gender needs and strategic gender interests. Because all the agencies aim to influence other organisations, as well as their partner organisations, by their approach, the lack of gender sensitivity in their policy documents can easily affect the policies of the others. Moreover, WaterAid has identified 13 key issues that it aims to communicate to its partner organisations. However, gender as an issue is not found in this list. Gender is also not considered when WaterAid discusses the ability to pay for water, which may determine whether women can really have access to improved water services.

ix) The sector strategies of the donor agencies are also weak in appreciating women's role in water supplies. The following examples from WaterAid's strategy document (1996) illustrate some of the relevant issues. In one of its strategies, WaterAid indicates that the UNDP estimates of 1.4 billion people around the world lacking access to safe water and two billion people lacking effective sanitation, are underestimated, as these figures do not take into account the lack of repair and maintenance to existing systems. However, the irony is that WaterAid does not indicate in its strategies that one major reason for this failure is the exclusion of women from project activities and hence, the need for women to be actively involved while designing its water projects. Similarly, another example can be cited from one of the criteria which WaterAid follows to assess project proposals. This criterion, as mentioned in Appendix II, concerns whether the technology involved is cost-effective, appropriate and affordable to the community. WaterAid's bias in this criterion is that it has not mentioned that the technology needs to be appropriate and affordable to women, as experiences from all over the world, as presented in Chapter 2, have shown that women more than men use, protect and manage the water systems (van Wijk-Sijbesma, 1998; Fong et al. 1996; IRC, 1991). Such biases may also be due to the development sector in general being

biased against women and agencies in the water sector being excessively influenced by the technical components, in particular.

Another bias can be seen in another of WaterAid's strategies (WaterAid, 1996), which mentions that advocacy has considerable long-term potential to bring lasting benefits to some of the world's neediest people. Again, WaterAid does not indicate that a majority of those neediest people are women, who suffer most from the lack of water supplies. This is an indication that the people, who are mostly technicians, involved in the preparation of WaterAid's strategic framework do not seem to be aware of the problems women encounter in the absence of improved water services.

In its strategies, WaterAid (1996) emphasises the need for broad based recruitment into its staff posts, covering a wide range of professions, and for a group of advisers to improve the quality of project work. However, it does not mention the need to recruit a gender specialist or people with awareness on gender issues, so that sector strategies and water projects can be designed to address both women's and men's needs. Further, the other strategies related to improving WaterAid's management, emphasise the retention of high calibre staff, reviewing personnel policies, procedures and staffing needs, and management of human resources. Again, WaterAid does not mention anything about the need to employ women staff and gender aware male staff, nor for gender training for its women and men employees etc., despite the fact that if gender issues are not considered while planning and designing water supplies they may not be effective.

The above discussions indicate that the current thinking of the international donors about managing the water sector within the frameworks of demand-driven and cost-recovery approaches, which put emphasis on treating water as an economic good, have a lot of implications on poor marginalised people. This is especially the case for women from female-headed households, since they cannot meet the water costs and hence, will be deprived of the benefits of the improved water services. Since the domestic use of water cannot generate any income, water used for this purpose needs to be viewed differently, unlike the water used for irrigation and other commercial purposes. The argument that women and men can generate extra income from their time saved from water hauling, which can then be used to meet the

water costs does not hold true in the absence of the promotion of such activities within the water projects and lack of other opportunities available locally.

There can be a number of possible reasons for the lack of gender awareness in the policy documents of the international donors, such as: i) there is a general tendency among people in general that water has technical dimensions and thus, it is more the men who are best appropriate in technical activities. This notion leads to the recruitment of more men than women in the agencies. As a result, a majority of the people preparing the policy documents will be men who, due to their biased attitude against women's roles and contribution in the water sector in general, fail to see the implications of their policies on women; ii) because water is seen more as an engineering component falling primarily under men's domain, the number of women studying civil engineering is much lower than the number of men. As a result, there are less women available to join the agencies that are focusing on water which, of course, implies that there are less women to contribute to the formulation of water policies that are gender sensitive; iii) a lack of awareness of the policy-makers (possibly men) about the gender issues in the water sector in the rural areas of countries like that of Nepal regarding household dynamics (gender roles, persons controlling income and other resources, persons responsible for the survival of the family, persons collecting water and maintaining health and hygiene in the household, etc.); iv) the whole development sector in general is bias against women and it can obviously have certain influence on water policies at the international level.

The above discussions point out the need for some gender sensitisation activities for the policy-makers at the donors' level so that they realise water not only has technical dimensions but also social and gender dimensions, for making these policy makers aware of the gender issues in the rural areas of the developing countries such as that of Nepal, and for creating an environment where women are encouraged to study civil engineering. There is also a need in the policy documents of the donors to highlight the necessity to create opportunities for women and men to increase their income by providing them with inputs such as polythene pipes, improved seeds, credit, training, etc. so that there will be no problem of paying water tariffs. While some of these can be done with little investment by the water agencies themselves, for some others they can co-ordinate with other government agencies or NGOs. These mechanisms will not only help the local people, especially women, to meet the water

tariffs to fulfil their practical needs, but also will increase women's status and their bargaining power in the household and the community.

5.2 Influence of Donor Policies on National Governments

This section, taking examples from Nepal, attempts to summarise how the consideration of women's issues in relation to water at the international level has influenced the national governments, NGOs and INGOs in addressing women's issues in their policies and practices. Table 5.1 summarises the chronological links between the international events that have been discussed in Chapter 2 and similar events in Nepal.

Table 5.1 clearly shows that every time that an event related to water has taken place at the international level it has made some impact in the plans and policies of the water sector in Nepal. This is mainly for two reasons: i) being a member of the UN, the government is strongly influenced by all its rules and regulations, and ii) because two-thirds of the development budget comes from the international community it has to follow the international norms, so as to keep its programmes running. For example, the policy documents of some donors such as the World Bank (1995/96) and the ADB (1998), state that they want national governments to design their water programmes by using approaches that respond to demand. They mention in their strategies that they will support the inclusion of full cost-recovery in national water policies and that the sector strategies in each country should outline how full cost-recovery will be achieved in practical terms, both in capital costs and operation and maintenance costs. They also advise that national governments should develop appropriate programmes to phase this policy in as soon as possible. Accordingly, after the Dublin Conference in 1992, which put emphasis on water being treated as an economic good, the government of Nepal built in this policy in all its Acts, policies and plans formulated thereafter, under pressure from donors such as the World Bank and the ADB.

Because of the donors' financing power national governments quietly follow their rules. To cite one example, pricing and charging for water has been one of the key decisions made in all regional water policy consultations held in different Asian countries at different points of time under the sponsorship of ADB (1998). Accordingly, the Government of Nepal, being a receiver of ADB loan and grants, built in this principle in its National Water Supply Sector

Policy (NWSSP) (HMG/Nepal, 1998b) apparently without thinking about its implications on poor rural people, especially women from female-headed households, who always have to work very hard for the survival of their children and themselves. Such women from the hills will have even more difficulty to meet the costs of water since the capital costs and the operation costs of gravity flow schemes in the hills are much higher than these costs for point source schemes in Tarai.

Table 5.1: Major Events on 'Women in Water' in Nepal in Relation to International Events

International Level		In Nepal	
Year	**Events**	**Year**	**Events**
1975	UN Conference on Women declared 1976-85 as Women's Decade	1976	Equal Pay Legislation
1976-1978	Conferences held during this period on water decided to declare 1981-90 as IDWSSD, women' role not yet felt crucial	1975-1980	No specific WID policy in the Fifth Development Plan (1975-1980)
1980	UN Mid-Decade Conference on Women demanded all governments to involve women in water supplies	1980	WID policy mentioned for the first time in the Sixth Development Plan
1982	Action-oriented Inter Agency Task Force formed for fostering women's participation in activities of the IDWSSD	1985, 1986, 1989, 1989	Women's formal involvement in the water supply programmes by Helvetas, UNICEF, Nepal Red-Cross Society, and the government, respectively
1991	UN Convention on Elimination of All Forms of Discrimination Against Women	1992	WID policy included in sectoral programmes of the Eighth Development Plan (1992-1997)
1992 1992-1998	Dublin Conference on Water followed by a number of conferences emphasising women's role in water Various other water-related conferences held as presented in Appendix 1	1992 1993 1997 1998	Formulation of Water Resources Act, Formulation of Water Resources Rules Gender issues addressed in the Ninth Development Plan (1997-2002) A separate section on GAD included in National Water Supply Sector Policy

The case of The Rural Water Supply and Sanitation Fund Board (RWSSFB), a joint programme of the Government of Nepal and the World Bank, which also puts emphasis on community's willingness to contribute project costs, as one of the main criteria for the eligibility of the schemes, is of interest here. The schemes implemented under this programme expect local communities to contribute to capital costs with all unskilled labour,

locally available materials and a cash contribution of at least 2.5% of the project construction cost in the hills, and 20% in the Tarai. Likewise, for operation and maintenance, communities are required to pay the first year's maintenance cost in advance, defined as 3% of the construction cost in the hills and 4% in the Tarai (Tiwari, 1997). In this case, though the World Bank has reduced the community contribution in the hills, in terms of percentage, as the project costs are higher here, the absolute community contribution will still be higher in the hills than in the Tarai. Yet, the donor agencies, such as the World Bank, do not mention anything about how the poor rural households, especially women, can meet these costs in order to be the beneficiaries of their schemes.

Unfortunately, the national governments are also not found to be challenging the norms set out by the donors as they apparently think such challenges might affect their relationship with the donors. This kind of situation poses a question to national governments like that of Nepal as to how they will tackle the severe scarcity of drinking water of those communities which do not come forward with demands as they are not able to meet the contributions required by the water projects. In the absence of answers to this question, the women from such communities will continue facing the hardship of collecting polluted water spending a lot of time and energy, as discussed earlier, which will have multiplier effects in the development not only of their families and themselves but of the whole society and the nation.

The following sections discuss the Acts, development plans and policies of Nepal, which have been influenced by the international donors, as shown in Table 5.1, from a gender perspective.

5.3 The Water Legislation of Nepal

In Nepal, the principal sectoral Acts are the Water Resources Act (WRA) 1992 and the Water Resources Regulation (WRR) 1993 and 1998. The WRA 1992 and the WRR 1993 and 1998 deal with provisions made about the use and control of water by the people of Nepal (HMG/Nepal, 1999). The following section analyses these Acts from a gender perspective.

Clauses 5 and 6 of the WRA (1992) and Rule 3 of the WRR (1993 and 1998) talk about water users/consumers and their association. As mentioned in those clauses, persons willing to

make use of water resources for collective benefit on an institutional basis may form a 'Water Users' Association (WUA)' or a 'consumers' association' and such associations will have an autonomous status. However, these clauses do not define what constitutes such an association, which implies that such associations can be formed even without the presence of women as members, which is alarming given the fact that women have been traditionally undertaking most of the water related activities. In view of the existing notions in most Nepali rural societies, as discussed in Chapter 4, that women's priority is in the household and that they should not be involved in activities outside the home, that women are illiterate and thus not capable of making decisions, that men are superior to women so that the former should be in such associations, and that women lack confidence to participate in such activities, the chances of women being members of such associations is almost nil.

Though the WRA 1992, and the WRR 1993 and 1998 appear gender neutral by using the word 'consumers' association' and 'users' association', they are implicitly gender biased because they are premised on the perceptions of policy-makers who come from a heavily male dominated structure and thus lack a gender perspective. This is clear from a review of these Acts, which are not gender sensitive, and assume that State services benefit all citizens equally. Further, the most critical gap in the Act and the Regulations is the absence of a clear definition of how users or consumers are to be selected as representative members from within households, and whether a household identified as a legitimate user or consumer can be represented by one adult member or more. When the statement is not clear it may be interpreted that any member of the household, normally assumed to be a man, can represent the needs of other members within the household. It fails to acknowledge the well-researched reality that men and women within a household have different needs and constraints and are not necessarily homogeneous. Another underlying assumption is that the household should be represented by the head of the household i.e. in the majority of cases, the man.

The other gender bias that can be seen in the WRR 1993 and 1998 is in the formation of District Water Resources Committee (Rule 8) and Water Resources Utilisation Conflict Resolution Committee (Rule 23). These committees are formed, respectively, to issue licenses for the utilisation of water resources and to resolve conflicts, if any, in the water resources claimed by any consumers' association. Despite the fact that women are more

knowledgeable than men in activities related to domestic water resources (Davis et al. 1993; IRC, 1994) none of these rules mentions that priority should be given to include women in such committees. This lack of women's representation in such important committees can lead to the needs and constraints of women, who are really deprived of water facilities, being overlooked. Though it cannot be assumed that women's representation in such committees can protect the interests of women of all categories, it can be expected that their presence, as against the presence of only men, can indeed be more favourable on the part of women in general as they understand women's problems and needs better than men.

An even more serious gap in the WRR 1998 can be seen in Rule 38 which describes the formation of Service Charge Fixation Committees consisting of five members. The Rule 38 does not mention that the committee should have both women and men as its members. It is clear, as mentioned above, that women, more than men, can better evaluate the women users' economic status and their ability to pay for the water services since they have gone, one way or another, through the same kind of situation and difficulties. This rule lists a number of factors to be considered while fixing the charge for the water services; but, none of the factors is related directly to women. There is no mention in this rule of some very important factors such as: who in the household is responsible for the payment for water services, whether the local women have any income earning opportunities, whether the local women have access to and control over resources - all related to the payment of water tariff and women's strategic gender interests. The presence of women in the committee can answer these questions and so help to achieve a more equitable charging system which can be helpful to improve the lives of rural women in general and hopefully of poor vulnerable women in particular.

Apart from the reasons mentioned above, the other reason why women's presence is essential in such committees is because the local women feel free to share all their feelings with the person of the same sex which will, however, not happen with men who normally prefer to talk only with men. For example, the men in such committees such as the Local Development Officers, VDC officials, the DWSO officials, who were interviewed in this research, have the impression that because men are the breadwinners they will be the ones to pay for the water services. Accordingly, they decide the amount based on the earnings of the men. This problem can be taken as a reflection of the international donors' perception of water to be

treated as an economic good, without considering the implications of this principle on women.

Despite several weaknesses in relation to gender, one positive aspect of WRR 1998 is its provision of including two women in a nine member executive committee, formed from among the users of the association (Rule 3). This provision is encouraging, but, experiences have shown that the presence of two women as against many men is unlikely to be effective while making major decisions. Moreover, because the WRR has specified 'at least two women' the general tendency among the male policy-makers at the departmental, ministerial and NGO level has been to make a similar provision regardless of the size of the committee, as will be discussed in more detail in the following section.

The above discussions show that the WRA 1992 and WRR 1993 and 1998 lack gender perspectives and thus, increase the chances of not properly addressing women's needs and concerns by water supplies which are developed based on these Acts and Regulations. From a discussion with the development practitioners, government policy makers, members of the National Planning Commission, and some GAD practitioners, two reasons emerged for gender insensitivity in the water legislation of Nepal. They are: lack of gender awareness on the part of members of the parliament, which could not, however, be tested in this research, and gender imbalance in the parliament, to which the legislation is forwarded by the concerned ministries for approval.

About the gender imbalance in the parliament the situation is as follows. The representation of women in the parliament, the legislation making body, has always been poor: 8 (4%) women were elected in the first parliamentary election in 1991, 7 (3%) women in the second election in 1994 and 12 (6%) women in the third election in 1999, out of a total of 205 members in the parliament. In the case of the Upper House also, the situation is the same with three women holding five per cent in 1994 and eight women holding 13% of the total 60 seats in 1999. Though it is made mandatory in the Upper House that at least five per cent of the total seats should be for women, there is no such provision made in the Lower House. Because the political parties are not bothered about promoting the political participation of women they did not propose more than five per cent women candidates, which is a constitutional requirement, in all three general elections of the Lower House. Criticising this

tendency of the political parties, Belbase et al. (1995) report that the five per cent reservation for women is no reservation in any real sense, as women candidates have to contest the elections. This shows the male parliamentarians' hidden attitude towards continuing to hold their control and power in the legislation-making bodies. If there had been adequate representation of women in the parliament it is probable that the present constitutional requirement, of proposing only five per cent women in the general election, would have been challenged.

An adequate representation of women in legislation-making bodies, such as parliament, is necessary for the formulation of gender sensitive policies which can address existing gender inequalities between women and men. For example, in Nordic countries, where women's status is much better than in many other countries in the world, women occupy an average of 36% of seats in the parliament. Realising the positive effects of the presence of higher numbers of women in the parliament, Sri Lanka has proposed a quarter of seats and India has proposed one-third of seats for women in the parliament (Samath, 1998). In view of a number of indicators qualifying women's lives, which have been discussed in Chapter 4, it is clear that the situation of women of other countries in general and of Sri Lanka and India in particular, as they belong to the same region, is much better than those of Nepal. It is obvious that women's movements are much stronger and there are more women in the parliament in these countries than in Nepal. Therefore, a similar provision, such as changing the present constitutional requirement of proposing at least five percent women by the political parties contesting the election of the lower house to at least 25% at all levels, might help in the formulation of policies that appreciate women's roles, problems, needs etc. in the development sector in general and water sector in particular. Though it is difficult for women to contest elections and to increase their representation in the legislation-making body, given their literacy rate of only 25% (CBS, 1999) and their lack of access to parental property, or even to that of their husband, except in some special circumstances, as presented in Appendix 5 (Acharya, 1997; Belbase et al. 1995), this provision could definitely ensure a higher number of women in the parliament than are there now.

Regarding the Nepalese women's poor educational status and lack of access to parental property, which are the two major reasons for their inadvancement, Acharya (1997) argues

that the existing socio-cultural biases and laws, both of which are in favour of men, prevent women from exercising their equal right to education and property. The inequality in education and access to own property has made Nepalese women intellectually and economically dependent on men and has limited their participation in development activities, including those in the water sector, contesting national and local elections and so on. This also affects women's confidence and results in their subordination by men. Acharya (1997) and Jazairy et.al. (1992) report that as long as there is no resource crisis in the family, the primary school age girls may get to go to school. However, as soon as the resource constraint arises, the first casualty is the female child's education. Girls in lower income groups get fewer opportunities to go to school. Acharya further notes that those who do go to school get little opportunity to further their education beyond the secondary level. In fact, the issue of girls' education is also related with the issue of women's right to property itself. The fact that girls are transferred to their affinal households after marriage and consequently parents have no claim on their work or income, is one major reason that parents, especially males, as they control the income and the property in the household, do not spend money on girl's education.

Indeed, almost all the focus group women interviewed in all communities disclosed their lack of education and access to and control over income as the main reasons for their lower status. They said that males are less interested in investing in girls' education as girls eventually go to other places after marriage. Moreover, the patriarchal notion of females being good only for household chores is another reason for not investing in girls' education by males. These findings are in line with the findings of Acharya (1997). However, these women reported that if they had access to family income they would spend the money on their daughters' education since they have already fully understood the consequences of the lack of education (Box 13).

Similar experiences are reported by Aziz and Halvorson (1999) from their research in Pakistan. While the control over property can help women to overcome many socio-cultural barriers that men have imposed on them, the timely education of daughters can, in the long run, solve the problem of under-representation of women in all aspects of society including the parliament and in other law- and policy-making bodies.

Box 13: I wish I could send my daughters to schools

One of the women focus group participants in Gajedi village in the Tarai of west Nepal said, 'I wish I could send my two daughters to school so that they do not have to go through the same pain that I have gone through. Because I am not educated my husband always tells me that I can never talk wisely. I know why he is saying this. It is all because he can read and write and talk with outsiders when it is necessary. He is proud of the fact that we are surviving because of the money he brings home. As a result, he thinks he can do anything and no one will say anything to him. Despite my request to send our daughters to school he says that there is no point in spending money on daughters as they will go to their husbands' home after marriage. All men in our community are like him. If I were literate and had some money he would probably listen to me'.

Since the legislation of Nepal is influenced by International Conventions it is essential to look at Nepal's affiliation with such conventions. Nepal has ratified the UN Convention on the Elimination of all forms of Discrimination Against Women (1991) and The Nairobi Forward-Looking Strategies for the Advancement of Women (1985). However, it has not yet resolved the issue of property rights which at present mitigates against women. External support agencies have ample opportunities to exert subtle pressure on the government because of their international experiences and the weight of financial backing, as discussed before. A nation wide study carried out by Shtrii Shakti (1995) in Nepal also notes that the funding to the government should be made subject to the preparation of gender sensitive plans, programmes and policies in the water sector. Miller (1998) further argues that women's national and international NGOs can also exert indirect pressure by lobbying government delegates to pay attention to gender issues in the international fora.

From the above discussions, the issues that appear to be important for consideration in the long-term are: creation of an appropriate environment where girls have equal opportunity to go to schools, can continue both school and higher studies, can achieve the same quality of education as boys, can study civil engineering, etc. so that they can compete with males in all activities and can enter every field, including parliament, when they are capable of doing so. Equally important issues for consideration are the quality of reading materials and teaching methods since they are at present totally gender blind and gender insensitive.

5.4 Development Plans and Water Policies of Nepal

Nepal has been following the five year development plan approach over the last forty-five years. This development plan spells out the national objectives, policies, and the strategies for each sectoral activity to be implemented in the country during the plan period. At present, the country is in the middle of its Ninth Development Plan (1997-2002). The sectoral policies are normally developed based on such long term development plans. The Ninth Plan aims to provide all Nepalese with water supply facilities of basic service level by the end of 2002 within the principles of sustainable development, effective service delivery and equitable distribution. The following strategies have been formulated to fulfil this objective (HMG/Nepal, 1998a):

- To classify the service level based on quantity and quality of water supplied, its accessibility and its reliability throughout the year.
- To mobilise optimally the local resource for the supply of safe water in adequate quantity.
- To protect and conserve the existing resources both in the Tarai and the hills.
- To prioritise the under-privileged, minority groups and poorer communities with active involvement of user groups.
- To integrate sanitation programmes with water supply activities for improvement in environmental hygiene and public health.
- To develop simple, low-cost technologies that are within the capabilities of users to manage, operate and afford to pay for improved services and to replicate such technologies at the national level.
- To redefine the roles and responsibilities of the existing institutions for effective and efficient service delivery and facilitate decentralised operational modalities.
- To promote the involvement of NGOs, community based organisations and private sector as partners for the overall development of the sector.

- To develop alternate institutions to enhance the existing service level in the urban water supply services and promote the involvement of private sector.
- To make the users groups and local authorities fully responsible in the process of project formulation and operation and maintenance of the services.
- To establish appropriate institutions to develop human resources and strengthen them.
- To develop technical and institutional capabilities to reduce the present leakage and wastage in the urban areas.

Like the WRA 1992 and WRR 1993 and 1998, the Ninth Development Plan, which guides the development activities of the country, also does not specify a breakdown of roles by gender in its objectives, policies and strategies. As in the policy documents of the international donors discussed earlier, the Ninth Plan also uses confusing terminologies such as "local communities" and "users" which implicitly refer to men. Nowhere in its activities does it mention why women together with men need to be incorporated in water supplies. Under its policies and strategies it mentions that priority should be given to implement water and sanitation projects benefiting the under-privileged, minority groups and poorer communities, with active involvement of the user groups. Similarly, in another policy about operation and maintenance of the completed schemes, it mentions involving local communities and user's groups (HMG/Nepal, 1998a). The Plan does not mention women's roles in either case. Analysing all the gender gaps in the legislation, development plans and national policies, this research thus aims to suggest what needs to be done to fill in this gap.

The Ninth Plan does have a separate section on women, with emphasis on three major components, mainstreaming women into national development, elimination of gender discrimination and women's empowerment. However, from the fact that the issue of women has been dealt with separately, it can be surmised that the planners have not yet realised the importance of integrating women into each major sector, including drinking water. Unless and until women's issues are mainstreamed by including them into sectoral activity no one will really bother about considering gender issues at the time of implementing projects. Levy

(1998) also argues that separate policies on women or gender on their own have been shown to be unsuccessful in directing gender integration into mainstream policy.

The recently published National Water Supply Sector Policy (NWSSP) 1998, which is to guide the management of drinking water projects in the country (HMG/Nepal, 1998b), is also inadequate in addressing gender issues in the water sector though it has a separate section on "Gender Equality and Service Development". One strong reason for this is the fact that the NWSSP is based on the Ninth Plan which itself is gender insensitive in terms of recognising women's role in the drinking water sector. The following section points out some aspects of the NWSSP where it has failed to take account of vital gender issues.

- The NWSSP is silent about gender in general and women's role in particular in a number of sections, which indicates that the NWSSP has not yet considered women to be integrated into the mainstream.

- The NWSSP does not talk about the integration of women in its entire document (except in one place) though reducing women's drudgery is one of its objectives.

- Throughout the policy document the policy-makers have used the word "community" which implicitly refers to men; in many water projects that seek community participation, it is mainly the men who are included in the local committees.

- In the policy on "Technology" the policy-makers talk about technological options which are commensurate with the affordability and managerial capacity of the beneficiary communities. However, they do not mention that such technological options need to be as per the choice of women since they are the primary users of any new technology.

- Despite the increasing recognition given to involving women in the operation and maintenance phase of water projects, the NWSSP does not mention anything about women in this section.

- In its "strategic objectives" also, the NWSSP is silent about women and their needs and interests.

- In its strategy on "water quality" the NWSSP talks about promoting appropriate disinfection methods for domestic use, but, interestingly, it does not mention that women need to be taught about this method since they mostly handle water in the households.

- In its strategy on "human resource development", the NWSSP talks about different kinds of training to be provided to the staff of DWSS, to other related institutions and to community members. However, it does not mention the need for training on gender issues, nor for any specific gender-differentiated training.

- In its strategy on "gender equality and service development", the NWSSP talks about bringing about social reforms and improving the present condition of women. It does not, however, mention anywhere in its programme activities, strategic objectives and strategies how it aims to do so. Moreover, the separate section on gender issues and the lack of detail on gender aspects in all other sections indicates that the policy of mainstreaming gender issues is being avoided from the outset.

- The policy, following the WRR, states that there should be at least two women in a WUC. However, it is silent in fixing the maximum number of members in such associations, which is confusing as the proportion of women varies from one WUC to another depending upon the size of the WUC. As a result, these two women cannot make any significant contribution in the WUC as they can be easily dominated by a majority of men present in the WUC. In the absence of a quota in percentage terms the males, who make decisions, fulfil only the minimum requirement, as a token of involving women, without being much concerned about the strategic involvement of women, as has been reported in many government and NGO run projects and observed in some of the projects studied during this research. Because women's participation in the local committees is a critical issue as it can lead to sustainability of practical benefits and to meeting a number of women's strategic interests, the present policy of including only two women needs to be reviewed. While doing so, it will be useful to review the provisions made in other sectors, such as irrigation and forestry, where the policy is to have at least 20% and 30% women in the local committees, respectively.

Though the NWSSP and the Ninth Plan have one or two gender specific statements, the failure to assess and address the practical gender needs of women and the constraints to their significant participation and empowerment (strategic gender interests) that are embedded in Nepali society, negates the value of such statements. From a review of the Ninth Plan and the NWSSP it can be said that women have been mentioned in these documents only as a tokenism but not to meet women's needs and interests and to enhance their living conditions. A SDC study (1995) on the forestry sector carried out in Nepal supports this argument. A number of reasons have emerged from discussions with the policy-makers with regard to why the water legislation, development plans and national water policies in Nepal are gender unaware. They are as follows:

i) There is a lack of clarity and confusion about gender aspects in the donors' policy documents. Because the donors play a vital role, as discussed in the earlier section, in the formulation of national governments' plans and policies due to their financing power, the gender biases in their policy documents are normally reflected in the plans and policies of the national governments. In turn, this can affect the functioning of other local institutions involved in the water sector, since the latter take the former as their basis to initiate their own policies, goals, strategies etc. as happened in the case of the institutions selected for this research. The officials interviewed in the selected institutions said that the donors normally come with a number of conditions (guidelines), which are reflections of what they have in their sector strategy documents, that they want their partner organisations to fulfil. If those guidelines have addressed gender concerns it is natural that the policies that the partner organisations prepare will also be gender sensitive. Otherwise, the policies reflect what they think are important to address in water supplies. Moser (1993) argues that the failure to integrate women related policy into national policy objectives results in a lack of clarity as to the role of other government agencies in carrying out policies relating to women's needs.

ii) The attitude and a limited understanding of gender among the male policy-makers is another reason for gender insensitive plans and policies (Box 14).

Box 14: A Male Bureaucrat's Attitude towards Women

A senior government official in Nepal remarked, without showing an understanding of women's various roles, that the drinking water sector cannot expect much from women staff as they never have time to be serious on official matters. They do not want to go to the field and they do not want to stay after the office hours. Even when they are in the office half of their time goes in gossiping about their family matters. Despite this, he proudly said, the government has mentioned women here and there in the policy documents such as the Ninth Plan and the NWSSP and also made provision to include two women in the local water committees. Being even more sarcastic he said, "I wish I were a woman so that I could also have all the attention towards me". Similarly, a male VDC official said "how can one expect women to be in the planning and policy making bodies since they have their brain under their feet", which meant they cannot do wise things as they have no brain in their head.

iii) There is a gender imbalance in the policy making bodies, both at the political level - District Development Committee (DDC) and Village Development Committee (VDC), and at the bureaucratic level - District Water Supply Office (DWSO), Department of Water Supply and Sewerage (DWSS), Ministry of Housing and Physical Planning (MHPP) and National Planning Commission (NPC), with men occupying a majority of the seats in all. Because of lack of adequate numbers of women in these bodies the plans and policies that these bodies formulate fail to address gender issues. The composition of such bodies is discussed in detail in the following section.

5.4.1 Composition of the Planning and Policy-Making Bodies

Like the formulation of legislation that takes place at the parliamentary level, the formulation of development plans and policies on water is carried out at the village level by the VDC, at district level by the DDC and the concerned DWSO, and at the central level by the MHPP/DWSS and the NPC. The VDC and the DDC, which plan, implement and co-ordinate programmes including those for the water sector at the local and the district levels, are regulated by the VDC Act 1991 and the DDC Act 1991 respectively (HMG/Nepal, 1991). However, those acts provide for only limited political participation of women as discussed below. (Recently a new Act by the name of 'Local Governance Act 1999' has been released by the Nepali government. This Act supersedes all other Acts such as VDC Act 1991 and the DDC Act 1991. However, a review of this Local Governance Act 1999 shows that its content in terms of women's roles, status and the degree of power that they can exercise at various planning and decision-making levels is exactly the same as in the VDC Act 1991 and DDC Act 1991. Hence, in order to avoid the hassles of changing only the number of clauses and

sub-clauses, the following discussions will still stick with the VDC Act 1991 and DDC Act 1991.)

Both in a VDC (formed as per clause 3), which is the lowest political administrative unit responsible for implementing all development works in its vicinity, and in a Village Council (VC), formed as per clause 3, which is to guide the VDC, there is provision to nominate at least one woman, as per section (c), sub-clause (2) of clause 7. If there are no women elected at the post of VDC chairperson, VDC vice-chairperson and ward chairpersons (which is very common), who can automatically be the member of a VDC, there will be only one woman in the VDC. The normal practice is to nominate the same woman in both the VDC and the VC as happened in both Motipur and Hile villages studied. Because the provision says "at least one woman should be nominated" the normal tendency is to nominate only one woman in both these bodies. In some cases even this provision of nominating one woman is not fulfilled as happened in the VC of Magaragadhi VDC. This finding of the less chances of women being elected to VDC is also supported by the findings of Acharya (1994) who reports that at that time, there were 11 women chairpersons and 18 vice-chairpersons among 4,004 chairpersons and vice-chairpersons each. As the members of the VDCs, there were altogether 210 women (0.58%) out of a total of 36,093 members. These few women elected to the posts of chairpersons and vice-chairpersons are relatively better educated even than their men contestants and are from better-off families where they are allowed to use the family property for development of their career. This finding also supports the earlier conclusion about the emphasis to be put on women's rights to education and property.

Unlike in the case of VDC, even if there are no women elected at the post of VDC chairperson, VDC vice-chairperson, and ward chairpersons and members (which is very likely), who can automatically be the members of a VC, there can be at least nine women in the VC who are elected/nominated from nine wards at the rate of one from each (each VDC consists of nine wards and the constitution demands at least one woman to be elected from each ward and hence, each political party contesting election at this level is supposed to propose at least one woman). However, this higher number of women in a VC, as shown in Table 5.2 below, does not make much difference as this body is only to guide the VDC and does not hold legislative power.

Table 5.2: Composition of VDC and VC by Research Site and Sex

Research Site	Motipur		Magaragadhi		Gajedi		Hile*	
Members	VDC	VC	VDC	VC	VDC	VC	VDC	VC
Male	12	39	11	42	12	43	12	41
Female	1	10	1	9	1	10	1	12

Notes: * As Hile falls under Dhankuta Municipality the VDC and the VC here should be understood as Dhankuta Municipality and Dhankuta Town Council

There is provision for one advisory committee at the VDC, as per section 13 (d) (1) sub-clause (3), to suggest activities to be implemented in the VDC, but again the chances of forming such a committee and of women being nominated to this committee is bleak as this is not mandatory. For example, it was reported in all VDCs studied that such a committee has not been formed yet.

Section 20 (2) (d) of the VDC Act has made a provision to give priority to programmes benefiting women while preparing Village Development Plans. However, Belbase et al. (1995) argue that "although this provision is encouraging, who is to ensure or monitor whether such programmes are developed or not? As there is the certainty of only one woman's involvement at the VDC level, it is unlikely that the hegemonistic males would agree to ensure the compliance with this section and work for the development of the hitherto backward women community". The information collected from the VDCs studied also corroborate this conclusion. For example, Magaragadhi VDC, Gajedi VDC and Dhankuta Municipality have initiated some sewing/weaving activities for women, but, these activities are at a very limited scale in terms of both coverage (they are implemented in only 4 wards out of more than 30 wards in the two areas) and cost (no activity is worth more than Rs. 10, 000 (90 Sterling Pounds). Further, in Magaragadhi, this activity is being undertaken through the funding support of 'Western Tarai Poverty Alleviation Project' but not through the VDC's own fund.

Similarly, at the DDCs (formed as per clause 3), which also implement drinking water projects, and the District Councils (DCs), formed as per clause 3, that are to guide the DDCs, the representation of women is not encouraging. As in the VDC, there is provision for

nominating at least one woman as a member in both the DDC and DC, as per article(e), sub-clause (2), clause 5. Only the persons elected to the post of chairpersons, vice-chairpersons and members of the VDCs in the district can stand for membership in the DDC that takes place at the Ilaka level (one district is divided into nine Ilakas, a geographical territory consisting of roughly 5 to 9 VDCs). Unless there are women elected as Ilaka members, president and vice-president elected from among the elected members of each VC and town council of the district, members of the lower house and upper house, there is a possibility of only one woman in a DDC. Similarly, at the DC, unless there are women elected to the post of VDC chairpersons, VDC vice-chairpersons, mayor and deputy-mayor of the district, and members of the DDC, lower house, upper house and Ilaka (which is unlikely), only one woman can be in its body. Since there is no compulsion for women to be elected at the Ilaka level from among the elected chairpersons, vice-chairpersons and members of the VDCs in the district, the number of women in the DC will usually be very small as can be seen from information presented in Table 5.3.

Table 5.3: Composition of DDCs and DCs by Research Districts and Sex

Members/Districts	Bardiya		Rupandehi		Dhankuta	
	DDC	DC	DDC	DC	DDC	DC
Male	13	77	20	167	14	90
Female	2	2	1	1	1	3

Because the chances of women contesting and being elected to these posts is negligible there is a certainty of only one woman's representation in both these bodies. For example, there was only one woman member elected to the DDC of Bardiya district, making the number of women two in the DDC including one through nomination. In the other two DDCs studied, no woman was elected and hence, only one woman came to the DDC through nomination. Again, as in the VDC, the normal practice is to nominate the same woman in both the DDC and DC. Because the provision says "at least one woman should be nominated" the males in the DDCs and DCs usually do not like to nominate more than one woman (Table 5.3). These findings are in line with the findings of Acharya (1994) who reports that of the 75

chairpersons of the DDCs none is a woman. There is only one woman who serves as vice-chairperson at the district level. As the members of the DDCs, only 6 women were elected while the figure for men was 924.

Further, a provision has been made in both Section 19 (2) and Section 37 (2) of the DDC Act for the constitution of sub-committees and inclusion of women in those committees. However, these provisions seem arbitrary since the constitution of sub-committees and inclusion of women in those committees are both discretionary rather than mandatory. If any sub-committee is formed the chance of women being selected to that committee is bleak given the fact that they have to compete with male intellectuals. In view of women's lower level of literacy and the other socio-cultural factors described above, it would be very difficult for them to become members of the committee if the inclusion of women is not made compulsory. Likewise, section 37 (2) (e) of the DDC Act also mentions the need to prioritise activities benefiting women at the DDC level. However, it is hard to perceive that this gets translated into action, particularly when there is insignificant participation of women at DDC level. For example, from discussions with the officials in all three DDCs studied it was found that only the DDC of Bardiya has one small component on women's development worth Rs. 25,000 (200 Sterling Pounds) in the entire district.

From the above discussions what becomes clear is that women, in relation to men, have very little power in terms of making decisions about development activities in Nepal. This applies at all levels – parliament, VDC and DDC - including those where this research was undertaken. This is a great lacuna of local government legislation and to some extent these acts fall short of the spirit of the Constitution. When the Constitution itself has allocated five per cent of candidacy to women in the general elections of the Lower House, law makers should have made at least similar provisions in local government legislation. Unless women's participation in the VDC is ensured, it would be impractical to expect a large number of women in the DDCs and Parliament. The present provision of nominating one woman both at the VDC and the DDC, means little when contrasted with the number of male members present in the same bodies. This is the reason why there is limited or no activity related to women in the research VDCs and DDCs. What can be inferred from such a poor participation of women in the research VDCs and DDCs is that the other development activities, including

that of water, initiated by these agencies also cannot meet the needs and concerns of the local women. The discussions that will be made in Chapters 6 and 7 support this conclusion.

At the district government level also, the involvement of women in making plans and policies is nil. It was reported by the concerned government officials that there is only one woman engineer in all of the 75 DWSOs in the entire country. As at the local and the district levels, at the highest level, where national plans and programmes are made, the National Planning Commission (NPC), which normally consists of 6 members, women's participation is nil in Nepal. The NPC, which is responsible for making long term plans and programmes for the country, has never had women members since its formation in 1954. Similarly, at the Department (DWSS) and the Ministry (MHPP) levels, there are only five women engineers. Since these five women are at different levels in the hierarchy not all of them can contribute in the formulation of plans and policies. In turn, it can be concluded, as before, that the water projects planned, designed and implemented by these male technicians will have limited chances of meeting the genuine problems of women, as will be the focus of the subsequent chapters.

5.5 Summary

The discussions presented in this chapter reveal that the current international perception of water is centred around the idea of the resource being treated as an economic good. The current approach argues that because people can have better services from the involvement of an efficient private sector, can receive a number of health and social benefits, and can use the water not only for domestic use but also for commercial purposes such as irrigation, or running tea shops or hotels, that provide them with extra income, they will be willing to pay for improved water services. However, the experiences, from the literature, as discussed in the beginning of this chapter, and from this research which will be discussed in Chapters 6 and 7, have shown that despite these benefits, the poor households, especially those which are female-headed, in poor rural areas of a country such as Nepal, where there are no possibilities of increasing income from water used only for domestic purpose, cannot pay the costs for water and thus, are forced to go back to their traditional unhygienic sources.

This approach has failed to appreciate that in many rural communities all water related activities, including the payment of water services, fall under the responsibility of women. However, the problem is that though women realise the benefits of improved water services to their family and themselves, and show interest to pay for them, they cannot do so due to not having access to and control over resources either in the households or in the community. As a result, and when these circumstances are explained and understood, poor rural communities do not come forward with any demand for improved water services. In cases where there is a demand this, as experiences have shown, will be at the expense of giving up many other basic necessities required for their better survival. Though some of the donors have indicated the need for subsidising poor people they have not been clear enough about the mechanisms for such subsidies.

The present emphasis on the demand-driven and cost-recovery approaches and thus the delivery of water services by the private sector encourages those who have money to use the resource as much as they can. In turn, the private sector, which runs for profit, will serve more the sectors such as agriculture and industries, which have no problem to make the payment for their use of water as they can increase their income by the use of improved services. This shift can lead to under-investment in domestic water and in health and sanitation services, where a large number of women have established their roles, leading to a massive reduction in women's employment in this sector.

Though women's involvement in water supplies has been one of the principles of the Dublin Conference, which guides the water sector at present, the policy documents of the donors studied in this research are silent in specifying women's roles at different levels in water supplies, and in addressing women's genuine needs and concerns in the water sector so as to improve their lives. In turn, the national policy documents, which are the reflections of what donors have in their strategy documents, are also weak in addressing gender concerns. The review of the legislation, development plans and the national water supply sector policy of Nepal shows male policy-makers' hidden attitude of maintaining male supremacy in the development sector. The fact that gender issues are dealt with separately in the policy documents without mainstreaming them in the sectoral activity shows male-policy makers' intention of providing only lip-service to the development of women.

From all these discussions it can be concluded that the drinking water sector at the international and national levels is gender weak. A number of reasons can be attributed to why the water sector both at the donors' and the national level is gender weak.

i) It is clear from the above discussions that the makers of legislation, policy and plans in Nepal are virtually all males. The opinion that came out from the interviews with some of these male policy-makers is that water is a 'hard-core' sector with a lot of technical components, that demands a lot of intellectual work and labour intensive physical movement, in which it is only men who are suitable. From informal discussions with some people working at WaterAid/London and FINNIDA/Nepal it was known that the same situation of many men being present at the policy level applies in these agencies as well; these men also have the same opinion about the limited role that women can play in the water sector because they look at water as a technical component. Because of the male policy-makers' notion both at the national and the donors' level that women are not good in the technical sector, they completely overlooked the women's roles in water related activities and the possible implications of gender insensitive policies on women and men while formulating policies.

ii) A lack of proper understanding among the national and the international policy makers about gender issues in rural water supplies, especially in the remote areas of a poor country like Nepal is, perhaps, another reason for the gender unaware policies both at the national and international levels. From interviews with some Nepali policy-makers it was found that their main basis while formulating the national policies is the plans, policies and the strategy documents of their donors and other international agencies, such as the World Bank and the ADB, which are the big financers in the water sector in Nepal. This situation makes it clear why the national policies are gender unaware - it is mainly because the donors' policy documents are gender insensitive.

iii) The fact that water is, in general, viewed as a technical component where women do not have much scope, leads to a tendency among parents globally not to educate their daughters in civil engineering. As a result, there is a small number of women at the national and the international policy-making levels, leading to the formulation of gender insensitive water policies by men who are primarily occupying this sector.

iv) The male policy-makers everywhere still hold the view that development work is too slow when women are involved, and, because women are considered only to be good for household chores, they cannot contribute to making major decisions as required at various stages of a water project. Such an attitude of male policy-makers at the international level, and at VDC, DDC, NPC and parliament, at the national political level, and at DWSO and MHPP/DWSS, at the national execution level, always hinders the formulation of gender aware legislation, plans and policies.

One main reason for such an attitude of male policy-makers in Nepal is the socio-cultural factor which has arisen out of patriarchal structure prevalent in the Nepalese societies. The unsystematic focus on gender aspects in the national plans and policies, as discussed earlier in this chapter, is an indication that the policy-makers made these gender changes through pressure from international donors, women advocates and NGOs, but, they have not yet internalised this matter themselves. The facts that not all policies are gender sensitive, that there is no monitoring provision to ensure whether projects meet women's needs, even in cases where women are specifically mentioned, that there is no commitment to allocate budgets for GAD activities, etc., reveal these male policy-makers' hidden attitude towards not recognising women's genuine needs and concerns.

In order to improve the situation, a number of activities need proper attention. The first and the most important is to change the attitude of male policy-makers which is, of course, a very difficult task and cannot be accomplished overnight. What might be helpful in this regard is to implement a combination of activities such as organising a series of gender sensitisation training and workshops, develop a woman-friendly organisational culture, formulate gender sensitive legislation and other institutional policies, and interact and share information with agencies and people that are doing good work on gender aspects, etc. This will help to change the present philosophy of looking at drinking water as an economic good and to create an environment where both women and men of all categories can fully participate and benefit from the sector. Also needed is a gender-sensitive environment both in schools and colleges in terms of text books, teaching techniques, any other reading materials, and teachers. These mechanisms, though some of them might take longer time, can eventually help to change the

attitude of both women and men so that both of them understand and appreciate each others' roles and the contribution that they can make in development, including in water supplies.

An equally important issue, in order for women's needs, along with those of men, to be well reflected at various planning levels in Nepal - VDC, DDC and DWSO, and NPC and MHPP - is to make women's proper representation at all these levels so that they can articulate their concerns, needs and the support that is expected from the concerned agencies. Because it is difficult for women to compete with males for various reasons, affirmative action and a quota system need to be implemented until there is a good number of educated and qualified women who can compete with men in all aspects. This situation shows the need to provide women with property rights and opportunities for good education. Efforts need to be made to create an environment where girls receive the same opportunities as boys to study in schools as well as in colleges, including studies of civil engineering which will increase the availability of technically qualified women working in the water sector. To produce gender sensitive women and men in the long run, the teaching techniques and the reading materials need to be gender sensitive.

In order to make sure that gender sensitivity has been maintained while translating the policies, plans, programmes and activities into action in a real sense, strict monitoring needs to be introduced. In many cases the tendency is to formulate policies not intending to achieve real change but simply to provide 'symbolic reassurance' that something is being done. For example, as Moser (1993) notes, 'in many countries the UN Nairobi Forward Looking Strategies are perceived just as symbolic policy and nothing has actually been done to implement those strategies in a real sense'. It is also essential to mention here that because it is not possible for the water agencies themselves to address all the issues discussed above, a mechanism needs to be developed to co-ordinate various agencies working in the same area so that they can seek each other's co-operation as the need arises.

With this chapter on gender issues at international and national policy levels, the next chapter discusses the institutional policies and practices of the selected agencies engaged in water supplies from a gender perspective.

6. GENDER ISSUES AT INSTITUTIONAL POLICY AND PROJECT MANAGEMENT LEVELS

The purpose of this chapter is to analyse the institutional policies and project level practices of the selected organisations namely, NEWAH, RWSSP (FINNIDA) and FRWSSSP (DWSS) involved in the water and sanitation sector from a gender perspective so as to know the extent to which they are supportive of meeting women's practical gender needs and strategic gender interests. The analysis is based on the institutional framework presented in Chapter 3, which is the outcome of a review of gender issues at the institutional level discussed in Chapter 2. It is also essential to mention here that the institutional issues discussed in this chapter make little sense if treated in isolation from each other, while their consideration in a composite form gives a better picture of gender sensitivity in the agencies selected for this research, and of the institutional environment, so as to be able to judge whether the latter is favourable in meeting women's strategic gender interests along with their practical gender needs. The analysis presented here can be supplemented by the information presented in Appendices 6 and 7.

6.1 Institutional Policies and Practices

Based on the framework presented in Chapter 3, this section examines the institutional policies and practices of NEWAH, RWSSP and FRWSSSP in terms of their policy formulating mechanisms, objectives and strategies, personnel policies, and organisational structure from a gender perspective. Also examined in those agencies are organisational culture and management style, provision for training on gender issues, provision for capital and human resources, and the role of change agents, if any. The sources of information for this analysis were semi-structured interviews and discussions with agency staff both individually and in groups, observation of the activities within these agencies, and study of project documents, strategic plans, personnel policies, Civil Service Rules and Regulations, annual reports, project preparation and completion reports, etc.

6.1.1 Policy Formulating Mechanisms

As regards policy formulation, process is as important as outcome, and the more participatory the process, the better the experience of hammering out a policy and the result (Macdonald,

1994). The policies which are formulated with the involvement of the majority of the staff, both women and men, through a democratic process will have higher chances of giving better results at all levels. However, neither the policy-making bodies nor the bodies which make operating guidelines are gender balanced in any of the three institutions studied. At the time of research, there was only one woman (as against six men) present in the policy-making body (executive committee) of NEWAH; no woman's representation in the steering committee of RWSSP, which is composed of 10 men from various ministries and organisations (see Appendix A6.1); and only one woman each at the central level (as against seven men) and regional level (as against 11 men) and none at the district level (as against three men) exists in the case of FRWSSSP. Though there are four women in the General Council, the highest decision-making body, in NEWAH, it does not have much meaning since this body has delegated its authority to the executive committee, where there is only one woman. Similarly, in the bodies preparing operating guidelines - senior management team consisting of 11 members in NEWAH, advisory body consisting of five members in RWSSP and the central project management team consisting of eight members in FRWSSSP - there was only one woman present in each of those three institutions (see Appendix A6.1 for the composition of these bodies).

Among the three institutions the senior staff of NEWAH were very confident in expressing their intention to do their best to convince the Board to review the membership of both the executive committee and the general council so that more women could be included in those policy-making bodies. However, this has not come about since their recent strategic plan for 1998-2002 does not say anything about this matter. It is written in their new strategic plan that NEWAH will "review the composition of its Board and the total number of general members such that a broad range of professional disciplines is represented" (NEWAH, 1998), but, nowhere in its strategic plan does NEWAH mention the need to make a gender balance in its management composition. The situation is almost the same in RWSSP, where neither the expatriates in the management nor the advisors in the planning body felt the need of more women's representation in the steering committee and the advisory body respectively. Though the female health advisor and the institutional advisor, a male, were of the opinion that more women should be recruited and involved in various planning bodies such as the project support unit (PSU) and district support unit (DSU), their views were not appreciated

by other male colleagues and the male expatriates. There is even less enthusiasm in FRWSSSP/DWSS towards increasing women's participation in the policy-making bodies at any levels, either district, regional or central. Out of the five women engineers in the DWSS only two, one each at the 'second class' and 'first class' levels, have any chance of being involved in policy formulation meetings.

The possibility of the women staff, together with their male counterparts working at junior levels, making meaningful contributions to policy formulation in any of the three institutions is also bleak due to the existing hierarchy. Because of this hierarchy the junior staff do not have opportunities to attend meetings which deal with policy matters. In RWSSP and FRWSSSP the junior staff have not attended any meetings for months while in NEWAH, they do attend a meeting every one to three months but only to be given information about the decisions taken by the management and not for consultations about their own opinions for the formulation of new policies. Though the SMT of NEWAH said that the policy decisions are all kept in files and anyone can look at it, the junior staff, especially women, said that because the minutes are all in English language they have difficulty to understand them. Since women have many constraints due to their reproductive role, the decisions made in their absence can affect them more than men.

The above discussions show that the policy formulating mechanisms of the agencies selected in this research do not appear to be gender sensitive. One main reason for the lack of gender sensitivity in the policy formulating mechanisms is because there is a strong male domination in all three agencies leading to the involvement of more men than women in the policy making bodies. This has led to a lack of commitment among men in all three institutions in achieving a gender balance in the policy-making bodies. As a result, these bodies have not yet realised the contribution that both women and men could make in making their drinking water projects more gender sensitive so as to address both women's practical gender needs and their strategic gender interests. Because of the presence of more men, most of whom are technicians, the men interviewed in these agencies put a lot more emphasis on the technical aspects of water supplies than on their social and gender aspects. In turn, the policies that are formulated by men without considering the gender needs and constraints of, and differentials between, women and men employees, have led to low presence of women in the organisation, leading to the formulation of gender-insensitive objectives and strategies, and policies, not

only at the institutional level but also at the project and the community level, as will be discussed in the forthcoming sections.

In this regard, Hadjipateras (1996), with her experience of the international NGO ACORD, argues that while the number of women on the staff as a whole is critical, female participation and representation at senior management levels is also critical, as is the commitment of all senior management to gender equity. In ACORD, some of the most ground-breaking programmes in gender terms are those managed by female staff with a strong commitment to gender equity. Supporting the involvement of women in the policy-making bodies, so as to meet the real needs of women in the project communities, Moser (1993) also comments that it is important to recruit women professionals into management positions in order for the institutional policies to be in favour of meeting gender needs. However, this will help local women only if such managers are gender aware. Similarly, Hamerschlag and Reerink (1998) from their experience of a survey of 30 InterAction Member Agencies note that while some men demonstrated and incorporated gender sensitivity in their decision-making processes, many women raised issues that were of particularly concern to women. Further, both in the field and the headquarters, an organisation's gender work was greatly strengthened by recruiting and hiring women with a gender perspective into senior management positions.

When the senior management of all three agencies were asked why they have not yet thought of increasing women's participation in the policy-making level despite that it can lead to positive results in the agencies' work. Most of them said that there are no qualified women available who could be brought into the senior management team. However, given the fact that all other institutional policies and practices, including the level of efforts made by the agency to attract and retain women, as will be discussed in the following sections, are completely gender insensitive, this answer is only partially true. It rather shows a lack of commitment and seriousness among the senior policy-makers about addressing gender needs and concerns in the agencies' work.

Hence, from the above discussions, a number of issues appear to be important in order for the policy-formulating mechanisms to be in favour of meeting women's different needs at various levels. They are: whether the body responsible for formulating policies is gender balanced, which indicates that more women need to be hired in the organisation; whether the

people in the policy-making body are gender sensitive i.e., whether they know why having more women is essential in agencies engaged in water supplies, which means a series of gender training need to be given to those at the policy-making levels; whether there is a provision to provide adequate facilities to women employees to retain them, as experiences have shown that the presence of a higher number of women can lead to formulation of gender sensitive policies and meeting women's needs both at the headquarters and the project communities (Kardam, 1989), which means that the personnel policies and organisational culture need to be women-friendly; and whether an appropriate environment has been created to involve women in policy-meetings. The following findings of this research show that donors (e.g. WaterAid in case of NEWAH, FINNIDA Headquarters in case of RWSSP and ADB in case of FRWSSSP) can play a meaningful role by putting pressure on the concerned management in addressing these issues.

The decision about hiring a gender consultant at NEWAH was initiated by WaterAid and it is only after this consultant joined NEWAH that the latter started implementing GAD activities such as training, workshops, forming GAD poverty units etc. in NEWAH. The efforts to recruit women technicians were also started after the comments from a team of expatriates from WaterAid/UK that came to evaluate NEWAH activities in early 1997. In RWSSP also, there is a lot of external influence, which is even more than in NEWAH as the former is a bilateral project. The decision about carrying out a gender study and increasing the number of women staff was suggested by the missions that came from time to time from FINNIDA Headquarters to evaluate the activities of both Phases I and II. The fact that the project documents of Phase III are more gender sensitive than the other two phases is the result of these external suggestions, supplemented by the recommendations of the gender study by an expatriate. The situation is no different in FRWSSSP, where most of the WID/GAD activities, such as recruiting sociologists, especially women, so that they can work effectively with community women, recruiting women workers, hiring women water supply and sanitation technicians (WSST) etc. have been introduced upon recommendations from ADB (Box 15).

Though it is not inevitable that gender sensitive policy formulating mechanisms will always lead to betterment of women as it entirely depends upon how the policies are translated into action, the experiences of various authors, as discussed above, show that women's

participation in policy-formulation can in general lead to the formulation of gender sensitive policies, objectives, strategies, etc. which are instrumental in meeting women's needs at different levels, and donors play an important role in creating such an environment. On the other hand, the lack of women's participation in the policy making bodies can have adverse effects in the institutional environment as will be discussed in the following sections.

Box 15: Influence of External Donors in Gender Policy Formulation

A mission from the ADB/Manila recommended to the Government of Nepal that posts of women workers at DWSOs be created by rationalising positions within the organisation and within existing budgets. The mission also advised that DWSS should improve the balance between women workers and engineering staff. The government confirmed that it saw the inclusion of women workers in DWSS as important and would ensure that DWSS complied with the Bank's recommendation as follows: i) complete the recruitment of 75 women workers to fill in currently vacant positions by 31 July 1996, ii) draw up a programme to increase the number of women workers in DWSOs at a scale of 2 in every DWSO with one engineer and 4 in every DWSO with 3 or more engineers, iii) ensure that of the pool of 40 technicians to be maintained at the regional level effective October 1996, at least 25% would be women workers, and iv) draw up a programme of training of women workers commensurate with their recruitment (ADB, 1996).

6.1.2 Objectives and Strategies

Gender is a political issue because it is about power and also because it seeks to bring the private sphere into the public arena of debate and action (Macdonald, 1994). The objectives, and the strategies developed to meet those objectives of an institution show its intention of benefiting women, men or both sexes. In case of gender sensitive institutions their objectives and strategies will always be guided by the principle that they aim to improve the lives of women by attaining a balance in the sexual division of labour, power, and resources (strategic interests of women) between women and men. However, a review of the objectives and the strategies of NEWAH (1998), RWSSP (1996) and the FRWSSSP/DWSS (1996), shows that all these institutions are concerned about meeting only the practical needs of women and men (meeting the need for water) but not women's strategic gender interests. None of the agencies mention in their written objectives and strategies the key issues of women such as reduction of women's labour, change in women's income, improvement in women's condition by involving them in the decision-making of project activities and providing them with opportunities to participate in various training programmes etc. which all are the concerns of the GAD approach. An example of such gender-insensitive objectives is presented in Box 16.

Box 16: Gender-Blind Objectives in Water Supplies

NEWAH aims to achieve sustainable improvements in the quality of life of Nepali people by working through partner organisations and beneficiary communities to improve drinking water supplies, sanitation and associated hygiene practices. To attain this goal it aims to: i) support projects that integrate water, sanitation and hygiene education activities, ii) help develop the capacity of local partners and communities to undertake other development activities, iii) secure long term funding from a diverse range of donors, iv) contribute towards human resource development within the sector v) improve management aspects for institutional development and vi) expand programme to areas in greatest need (NEWAH, 1998).

Similarly, the major objective of Phase I of the RWSSP is the development of institutional capacity to provide safe, sustainable water supply and sanitation services in the Western Region of Nepal through water service rehabilitation and extensions, excreta disposal facilities, health education, community participation, and human resources development within the framework of HMG's national sector policies and objectives (RWSSP, 1996).

In this regard, May (1997) argues that policy and programme design need to reflect the structural causes and overall effects of inequality and injustice, and to challenge the 'either...or' attitude to social diversity. She further states, it has become increasingly clear that poverty and social exclusion affect men and women differently, and interventions that do not reflect this difference have in many cases reinforced structural inequalities for women. One of the key assumptions underlying a GAD analysis is that women and men, because they have different gender roles and power, also have different gender interests. If the policy-makers understand this reality they can design objectives that can help to meet the needs of both sexes. As Mosse (1993) suggests, if those who plan projects and programmes were better able to understand women's gender interests, they would be in a much better position to ensure that their gender needs were met. In fact, the policy-makers should understand that a clear, precise and unambiguous policy level statement of the importance of women related issues provides the starting point for operationalising gender concerns.

In turn, Longwe (1991) recommends three points that the policy-makers need to consider while formulating gender sensitive plans, programmes and objectives, women have different and special needs, women are a disadvantaged group in terms of their limited access to and control over resources, and women's development entails working towards increased equality and empowerment for women, relative to men.

The lack of awareness of the gender issues in water supply projects of the policy-makers of the selected agencies and its effects on community women can also be noted from their use in

the policy documents of the so called gender neutral terms such as 'community', 'users' and 'members' following the convention of the water sector policies of the international donors and the Nepali government. Though these terms are gender neutral they have always been misused and misinterpreted when benefits are to be shared in the communities. For example, in case of RWSSP and FRWSSSP, they mention in their strategy that users from the community will form a WUC and the members of the WUC will be provided with training. Taking undue advantage of these terms only one woman in the RWSSP and two women in that of the FRWSSSP have been included in the WUC of 11 and 13 members respectively. Accordingly, more men received training in both cases as compared to women. There are many other examples similar to this in which women have been deprived of or given less benefits compared to men - while selecting people for paid and unpaid positions, while going on observation tours, while giving skill-oriented training etc. Kabeer (1994a) also argues that the use of gender neutral terms like 'members', 'communities' etc. are usually misinterpreted to benefit only men.

Amongst the three institutions studied, only the FRWSSSP briefly states in its objectives that improving the quality of life and living condition of children, women and men is its goal. However, because the other objectives and strategies do not coincide with this goal (and thus it can be said that this statement is made only as a result of an ad hoc decision), it can be argued that this goal will only be partially fulfilled. For example, the women in Hile project have access to safe water near their home, but, still there is no change in their quality of life and living condition. When the water had to be collected from a farther distance the women were helped by males in this task. However, now, because the water is near the house the men expect more water to be available at home but have completely stopped fetching it. Moreover, due to the inappropriate location of tap-stands women are now obliged to carry water to their homes to perform their private ablutions, whilst they previously had privacy at the old water sources. This has all meant more burden on women's part.

The point that comes across clearly from this example is that if the project was serious about its objective of improving women's lives it should have developed other objectives and strategies in line with this overall objective, so that it had a higher chance of being fulfilled. For example, 'implementing gender sensitisation activities with women and men' can be one important strategy to target men to make them appreciate women's role in the water sector

since the experiences available so far have revealed that without women's meaningful participation water projects cannot be sustainable, on the other hand, it is obvious that without proper sharing of work between women and men the former cannot participate effectively in water projects.

From the above discussions it becomes clear that the institutional objectives and strategies are important issues to be considered while analysing water agencies from a gender perspective as they can be the implicit indicators to judge the extent to which the water projects of these agencies address the issues of women's practical as well as strategic needs and interests. It can be safely said that if the institutional objectives and strategies are not gender focused, the field level activities cannot address women's and men's genuine needs and concerns in a real sense. The discussions on 'project cycle management' in the subsequent section clarifies this conclusion.

A number of reasons have come out from the discussions with senior management of all three agencies for their gender unaware objectives and strategies. They are:

i) A lack of gender sensitivity in the donors' objectives and strategies, which are WaterAid, FINNIDA and ADB, in this research - since NEWAH, RWSSP and FRWSSSP rely respectively on the policy documents of the former while developing their own objectives and strategies. For example, it has already been discussed in Chapter 5 that these donors' objectives and strategies have not only failed to specify clearly the strategic gender needs and concerns of women and men, but also to disaggregate by sex the other activities or concerns using frequently the terminologies such as 'community', 'poor', 'people', etc., as if there is no difference between the needs and concerns of women and men.

ii) Another reason for the lack of gender sensitivity in the institutional objectives and strategies is that all three agencies selected for this research are similar to a typical patriarchal organisation which automatically repudiates any gender sensitive ideas and policies when it comes to putting them in written form. In fact it indicates the fear of the male bureaucrats and policy-makers that if their policies are made gender sensitive then they may not have the patriarchal control of the whole system as they had before. For example, the senior male officials' hidden willingness to maintain a male-dominated culture in their institutions can be confirmed from the fact that even the latest project documents, stating the institutional

objectives and strategies prepared by RWSSP in 1996, by FRWSSSP in 1997 and by NEWAH in 1998 are gender blind. This statement can be confirmed, even more emphatically, by the fact that the NEWAH officials had told the researcher that their new policy documents (1998) would be gender sensitive; unfortunately, this did not prove to be true.

Such gender-unaware policy documents mean that the work of the agencies cannot benefit women and men equally, especially in societies like that in Nepal, where patriarchy is so deeply rooted in everyday life. The negative effects of patriarchal societies in Nepal, which were discussed in Chapter 4, have been seen in the works of all selected agencies, as will be the focus of Chapter 7. One major effect of the patriarchal culture prevalent in the selected agencies is the lack of women in the policy-making bodies in these agencies, as discussed in the earlier section, which has, in turn, led to the formulation of gender insensitive objectives and strategies, as discussed above. The other effects of the decisions made by such gender imbalance policy-making bodies are discussed below.

6.1.3 Personnel Policies

From a gender perspective, two important issues about the personnel policies of an institution involved in water supplies need to be analysed. They are: recruitment policy and working facilities for men and women employees.

Recruitment Policy: The recruitment policy of an institution is one major indicator of whether the institution is gender-aware and is committed towards gender sensitivity in its activities. On the other hand, a gender-insensitive recruitment policy causes hiring more male staff than female staff. Indeed, a review of the recruitment policy and the discussions with the senior staff of all three selected institutions show that none of the institutions has a gender sensitive recruitment policy. Normally, in all three agencies, employees are hired either through personal contact (through some recommendations followed by interview) or through vacancy announcement (this is slightly different in DWSS where this can happen only when recruiting project staff but not the regular employees for whom there is a separate mechanism). In the latter case, it was reported by the NEWAH and RWSSP officials that the criteria they mostly used in an advertisement are as follows: the minimum qualification of the applicants, their age, working areas, job responsibilities and a line such as "women are encouraged to apply" so as to attract women. In general, the institutions do not specify the

employees' remuneration and the other facilities they receive, in their advertisements. They rather say that these will be given in accordance with the existing rules of the institutions. After the applications are received, they are first sorted to make sure that they meet all the minimum criteria set by the institution. Those who meet the criteria are then interviewed by a team of senior staff, which usually means male staff, as the numbers of women in senior positions are very low in all cases, as will be discussed in the next section. Such a recruitment procedure has a number of implications which are as follows:

i) When the same educational qualification is expected from both men and women then it is natural that the institutions receive proportionately less applications from women employees as the number of qualified women is much less than men in all fields in the market. In such a situation, even an advertisement which encourages women to apply does not have much meaning. Though this kind of statement, put by NEWAH and RWSSP, is one step ahead of the FRWSSSP, where no such statement is stated in the advertisement, the fact that there were only two women applicants as against 38 men applying for the post of RWSSP District Programme/Support Advisor in 1998, even with this kind of statement, confirms this argument. As Macdonald et al. (1997) note, a public service might have a policy of equal opportunities and targets for numbers of female staff at professional or managerial levels, but effectively exclude women from applying for jobs by setting gender-biased qualifying examinations. Instead, Macdonald (1994) argues that technical qualifications are not always the only ones needed. What is in fact required is to include gender sensitivity as a criterion for recruitment and selection in all jobs as the gender sensitive staff work towards a gender sensitive programme. Supporting gender awareness as a recruitment criterion for all posts, May (1997) further stresses that offices should struggle with the need to balance the numbers of women and men in the team at every level. Hamerschlag and Reerink (1998) also confirm that by including gender issues in interviews, job descriptions and performance reviews, organisations will attract and retain employees who are more likely to pursue gender sensitive practices.

ii) Because of their domestic responsibilities girls start and finish their school and college education later than boys. Even at times when they start at the same age the girls finish late as they often miss school and college since they have to help their parents, especially their mother in the household chores. When this fact is not considered women always find

themselves too old to apply for vacancies. Age restriction thus appears to be an important issue to be taken into consideration if the purpose is to encourage more women to join the institution.

iii) The advertisement which does not indicate what facilities men and women staff receive will always attract less women applicants as happened in the recruitment by RWSSP, since women's needs and concerns are more than men's due to society's expectations of women to be performing almost all household chores in addition to their official responsibilities. When there are less women staff then it affects institutional objectives and strategies as discussed earlier, but it also influences project implementation and the achievement of women's strategic gender interests, as will be discussed later. In this regard, Macdonald et al. (1997) stress that gender equality should be a priority not only in the organisation's mission statement, general objectives and policies but in its internal regulations (recruitment procedures, terms and conditions for workers, etc.). Hence, to keep women in the institution, the agencies should specify in their advertisements the facilities and conditions that they offer, such as childcare, flexibility in working hours, maternity leave, etc. Supporting this statement, Macdonald (1994) emphasises that welfare facilities based on a recognition of staff's responsibilities to their household as well as to their paid work, are necessary to allow women to take and keep positions. This means childcare provision, flexible time-tabling, openness to job sharing, part time work, and working from home.

iv) An interview panel with more men will tend to select more men than women since it is no exaggeration that in general men in Nepal tend to be less gender sensitive than women because of the heavy influence of patriarchy that shapes most of the Nepalese societies. Men usually perceive the biological responsibilities of women as their personal problem. Further, men also have the tendency to think that men are suitable for technical jobs and women for 'software' positions such as health and sanitation, administration, etc. The higher number of male staff in all selected institutions and the fact that the majority of women are in the health and administration sectors, as will be presented in the next section, confirm this argument. Such gender insensitivity seen in recruitment also affects the conditions of service and the criteria set for promotions, again leading women to be in a disadvantaged position. As pointed out by Longwe (1995), the lack of seriousness seen in these aspects indicates an

institution's willingness to maintain the tradition of male domination, male culture and of a male club atmosphere.

The above discussions show that gender-sensitive criteria in terms of qualifying examinations, knowledge on gender issues, age, facilities, working location, the composition of an interview panel in terms of their understanding of gender issues in the water sector, and the attitude of the senior management, which is mainly composed of males, as will be discussed in the next section, for positive discrimination in case of women, if necessary, are important gender issues to be given due attention in order to balance the number of women staff in relation to that of men staff. However, the above discussions also show that the selected agencies have not given due respect to these aspects which shows their insensitivity towards considering the critical gender aspects which have a differential impact on women and men. The negative side of this is that it has led to gender-insensitive policies, as discussed earlier, and to weaker practices, as will be discussed in the following sections, closing the door for meeting women's strategic gender interests both for employees and for beneficiaries of their development work.

Working Facilities and Conditions: Working facilities offered by an institution determine whether it can attract and retain its employees, especially women, as they have to share their time in the household, community and the office. As Hamerschlag and Reerink (1998) put forward, family-friendly work policies enable workers - both women and men - to balance their work and family responsibilities more easily. Since women are often the primary caregivers in families, providing family-friendly work options often has a greater impact on women, enabling them to take on more senior level positions in an organisation without negatively affecting their ability to care for their families. NEWAH, RWSSP and FRWSSSP have offered a number of facilities to their men and women employees at different levels. Among the three institutions NEWAH has a greater number of appropriate facilities for its employees than the other two. Aside from the various facilities provided to both sexes, it also provides paternity leave of 7 days for its men employees. Though, in general, the NEWAH employees are happy with the types of facilities and conditions that are being provided to them, NEWAH needs to consider the suggestions made by the women employees regarding increase in the maternity leave, making provision for some expenses to meet the cost of a helper taken by women staff to look after their small child while undertaking field work, and

allowing the women who are on maternity leave to use their accumulated leave from the previous year, as explained in detail in Appendix 6.

RWSSP, funded by FINNIDA, a bi-lateral agency, also has some appropriate facilities for its men and women employees but they are fewer than at NEWAH. The reason provided was that the salary offered by the RWSSP is higher than the salary of other agencies, such as NEWAH, and hence, it is not necessary to give other facilities under various headings. However, it is surprising and also an irony that the RWSSP does not even provide maternity leave for its women employees and crematory leave for its men employees though both are common facilities provided in almost all, national and international, institutions working in Nepal. This is the reason why there are fewer women staff in the RWSSP than the other two and there were only two women applicants as against 38 men applicants, as mentioned earlier, for the post of District Support Advisor. Further, the women staff complained that there was no consideration from the administration to resolve the problem of illiterate female staff related to the processing of medical bills, leave used, etc., as noted in Appendix 6. The junior women staff also complained that when there was a gender study carried out by a foreign consultant they were not consulted at all. All these issues show the lack of attention of the senior officials as well as the management of RWSSP in understanding gender concerns.

In FRWSSSP, the staff are provided with facilities in accordance with the *Nizamati Sewa Niyamawali* (Civil Service Regulations). Aside from various leaves offered to both women and men employees, women get maternity leave of 60 days (twice in their working period) while the men employees receive crematory leave of 15 days. The married women employees are also allowed to use the crematory leave if their husbands are using it. Regarding the placement of the employees also, the government has a provision that if both the husband and the wife are in the civil service they should be placed in the same area as far as possible (HMG/Nepal, 1996b). Similarly, there are different age barriers for men and women to apply for different posts at the government service, but, in case of women who have been working in government service on a temporary basis for a continuous period of five years there is no age barrier to be a candidate. This is not, however, the case with men (HMG/Nepal, Gazette 1998c). The probation period is also in favour of women as it is only six months for them while it is one year for men (HMG/Nepal, Gazette 1998c). Likewise, the government has set a certain minimum number of years to be served by men and women employees in order to be

a candidate for promotion. However, here also, the women employees are considered for promotion even if their service period is one year less than the minimum criterion; this is not the case with men employees, however (HMG/Nepal, Gazette 1998c). (The details of these facilities provided by the government to its women and men employees are presented in Appendix 6.)

Despite such facilities, one major issue related directly to the situation of women employees concerns the age of retirement which is at present the same for women and men. Given the fact that women might start their career later than men due to their delay in starting the school and completing their studies, as has been recognised by the government above, their age of retirement needs to be different from that of men. Similarly, the other bias seen in the government agency is related to the attitude of the senior officials about not sending women technicians (WSST) to the field, presuming that they are not capable of doing the necessary technical work. Since there are a number of examples from different countries (van Wijk-Sijbesma, 1985 and 1998; Bilqis et al. 1991; Baden, 1993, Fong et al. 1996) showing women successfully undertaking the role of maintenance workers, such attitudes of the male officers towards women's ability indicates their interest in maintaining a male culture of undermining, dominating and exploiting women.

One other point which has emerged from the research is that the senior officials of all three institutions have realised that women have a lot of problems and thus they have shown considerable understanding to women employees by being flexible in working hours, for matters like going to the field when they are pregnant or breast-feeding their child and fulfilling household chores etc. However, it is an irony that nothing has been written about what special provisions the institutions can offer to their women employees. This indicates the lack of profoundness of the senior management in understanding gender concerns and roles. Even the recent strategic plan of NEWAH, which covers the period 1998-2002, does not address these issues. The problem with a verbal understanding is that as an institution grows bigger and there is a substantial increase in the number of women employees, as is the implicit aim of all three institutions, such understanding may not continue to exist among the senior staff, for various administrative and managerial reasons.

Indeed, the women interviewed in NEWAH head office said that when their number increased from one in the beginning to five now, there has not been much consideration shown by the management about giving flexibility to them, unlike how they were treated in the past. The lack of transportation facilities is another problem reported by the women of all three agencies. The male staff who do not have their own transport can ask for a ride with others and that is what they have been doing in all three agencies. However, the problem for women is that they cannot always do this with the same person for social and cultural reasons. In this way they often have more difficulty to come and go from the office. Moreover, when the decision to offer flexibility is left at the discretion of the supervisors, some women may enjoy the benefits while others, especially those at the junior level, may not, as is happening at present in all cases studied (Box 17).

Box 17: Results of Discretionary Power

One junior female member of staff had to return to the office within 22 days of her delivery in RWSSP, which is rare in the Nepalese context. As a result, she had to ask her other family members to bottle-feed the child as she could not come to breast-feed the baby herself though it is so essential for a newly born baby. Some others in NEWAH and the FRWSSSP had to resign as their maternity leave was not adequate for them and they could not take extra leave, as they were temporary staff. On the other hand, when there was only one woman in the senior position in NEWAH she was given flexibility to go to breast-feed her child even during the office hours. The other example from NEWAH is that one woman being the section head was receiving transportation facility but the other woman, though working in the same level was not as she was not the section head. Further, the practice of leaving such an understanding between the supervisor and the employee had also created some embarrassing situations between the women staff and the male boss in both NEWAH and FRWSSSP.

Further, the discretionary power can also be vulnerable to changes in staff; the facility may not be there if the manager in favour is changed. This kind of situation leads to uncertainty among women regarding their continuity in the organisation. For example in BRAC in Bangladesh, in spite of a number of facilities including three months' maternity leave and six days' special leave a year for its women employees, BRAC was not able to maintain the proportion of its women employees at more than 15 to 25% as many other of women's genuine concerns were not well reflected in the institutional policies (Rao and Stuart, 1997; Goetz, 1997a). This situation will then repeat the same cycle of under-representation of women in the institution, which will again raise the question of its impact on institutional objectives and strategies, formulation of policies, project implementation procedures, etc.

What can be concluded from the above discussions is that despite the need for increasing the number of women by introducing policies that are in their favour so that the agencies can truly address gender needs and concerns in their work, the personnel policies of the selected agencies are not fully gender focused. Again, as discussed above, one major reason for this insensitivity in the selected agencies' personnel policies is the lack of insensitivity in the various policy documents of their donors - WaterAid, FINNIDA and ADB. This has already been reported that NEWAH, RWSSP and FRWSSSP use their donors' policy documents as a basis for preparing their own policies. On the other hand, the discussions that were made in Chapter 5, with special reference of WaterAid, have shown that the policies of the donors are completely gender unaware. The lack of emphasis put by the donors in their policy documents on women and their various needs and concerns led their partner agencies also to be less attentive on addressing gender issues in their policies.

The other reasons for the insensitivity in the personnel policies are the lack of understanding of the senior male policy-makers about women's genuine needs and concerns, lack of seriousness about the contribution that women can make in meeting agencies' gender and development objectives, and their biased attitude against women that the latter should always be subordinated by putting them always in a low profile. Otherwise, in view of the fact that there are not many qualified women available in the market to join the agencies such as NEWAH, RWSSP and FRWSSSP, as reported by the senior management themselves, it was necessary for them to come up with various policies that could attract and retain women. None of they have, however, made any such efforts. Though the ultimate aim of a GAD approach is to develop an egalitarian society where there will be no differences in the types of work that women and men perform, it is essential to recognise that there are certain differences between these two sexes mainly because of their biology and thus women need certain special considerations so that they can undertake their responsibilities effectively.

Moreover, the roles that have been expected of women and men in the Nepalese societies have been culturally determined for centuries. A change in these roles so as to expect that both sexes will behave equally in all aspects of their lives demands changes in the attitudes of both women and men which requires a series of gender sensitisation activities, along with many others, for both sexes at all levels. Until this has been achieved some positive discriminations in favour of women will help to recruit and retain women employees, which

will eventually be helpful in meeting community women's needs and concerns as the latter reflect their concerns better with the person of the same sex.

It is true that, historically, the work environment has been established for men and hence, the facilities offered by the institutions may not be palatable to women. The remedy to this situation is, however, that the genuine concerns of female staff need to be well reflected in institutional policy so that women can use those facilities and conditions such as flexibility in working hours, as their right and not as a privilege from someone in authority. This requires a good understanding of gender issues and a commitment to engendering the institution among the policy-makers and senior managers.

6.1.4 Organisational Structure

Commitment on the part of staff to integrating gender into institutional activities is positively associated with the level of female representation (Hadjipateras, 1998). From her experience of ACORD programmes in Gao (Mali) and Gulu (Uganda), the author notes that a programme in Gao, with virtually all male staff, has been very resistant to the gender policy, while in Gulu, where the programme has been headed by a woman for many years with equal numbers of male and female staff, the programme has been very proactive in adopting a gender policy.

Given this positive relationship between numbers of women staff and the integration of a gender policy, the numbers of women employed in the three institutions studied are disappointing. There are only 17% women (22 out of 128 staff) in NEWAH, 8% women (5 out of 64 staff) in RWSSP and 14% women (21 out of 146 staff) in FRWSSSP (including RPMO, CPMO and all permanent and temporary staff at DWSO), indicating an imbalance in gender ratio in all three institutions. The other gender issue of concern is that none of the selected institutions has been able to break the traditional gender division of labour among their men and women employees. In all institutions, while men are seen mostly in the technical positions women are seen mostly in the 'software' side i.e. health and sanitation. For example, there is only one woman technician (overseer) as against nearly 25 male technicians in NEWAH, no female technician as against eight men technicians in RWSSP (DDC) and five female engineers and six overseers as against thousands of male engineers and technicians in the DWSS.

The main point here is that the limited number of women staff has led to the formulation of gender insensitive policy documents as discussed earlier and poor or no representation of female staff while implementing the projects, increasing the chances of poor participation of women from the community, which eventually leads to the ineffectiveness of the projects in meeting people's needs, as will be discussed in detail in the next chapter. As Goetz (1992) says, according to feminist institutional analysis, the under-representation of women serves as an obstacle to the institutionalisation of WID/GAD concerns. While there is no evidence thus far to confirm that women in decision-making positions are likely to act in women's interests, it is undeniable that the majority of the WID/GAD advocates within development organisations have been women. In this regard, Macdonald (1994) further argues that agencies need not just more women staff but more gender-aware women in senior positions and more women (and men) experienced in gender work at all levels. Supporting this argument May (1997) also adds that unless there are gender-aware women and men in senior posts, awareness of gender issues in an organisation will be slower to develop.

From their other experiences Macdonald et al. (1997) note that, the only guarantee of gender sensitivity in the organisation is the presence of a significant number of women, constituting a critical mass, and among whom are strong, gender sensitive women, who are committed to women's empowerment and gender equality. The same authors further write that according to the UN, such a critical mass threshold is 30 to 35% of the organisation's staff. Once this threshold has been attained a process of change becomes self-sustaining. This process will speed up considerably if women are not only present at top management levels, but are also committed to gender equality. The recent experiences of Novib and NCOS are some cases in point. Their affirmative action policies contributed to a strong increase in women at middle and higher management levels - 12% in 1991 to 40% in 1996 in the case of Novib and 12.5% to 50% in the case of NCOS. Staff reported that as a result, gender considerations are placed at the core of the organisation's management, while there is more scope for different styles of working within the organisational culture. They further argue, the research has shown that once a critical mass of about 30-35% of women in the organisation, including at decision-making levels, has been achieved the organisation as a whole becomes more accountable to the specific needs and interests of women (Macdonald et al. 1997).

Though it was revealed by the senior management of all institutions studied that they are trying to increase the number of women employees, as well as to change the tendency of recruiting them only for health and sanitation work, this is neither reflected in their policy documents nor in their practice (NEWAH has recently recruited a few males to work in the position of health supervisor as a pilot programme). For example, NEWAH does not mention anything about increasing the number of women employees in general and in the technical side in particular under its strategy on "conditions of employment" in its recent strategic plan 1998-2002. It is true that the number of female staff is increasing in NEWAH over the years but as long as this is not mentioned in the policy document it will be hard to believe that the focus will remain the same in the future.

One other crucial point that has to be kept in mind by the senior officials of NEWAH is that though their attempt to recruit men to the post of health supervisor, which used to be only for women is a positive step from a gender perspective, it is essential that this position is not completely left open for males unless there are enough women coming to join the currently male-dominated technical side. It is true that when there are adequate numbers of both men and women applying for a job then no job should be tied up with either sex, but, as long as there are not many qualified women coming to join the technical positions, the health sector posts should not be left open for men. Otherwise, only men will be seen in this sector, as well, as the number of qualified men is much higher than the number of qualified women, implying that the latter are less capable of competing with men. This applies to all institutions working in the water and sanitation sector. In case of the RWSSP (including Phase III) and FRWSSSP also, it is hard to envisage that there will be a substantial increase in the number of women engineers and technicians in the near future, given the opinion of their senior officials that they cannot commit any special consideration for women over men if the former cannot compete with the latter.

With such an attitude of the selected agencies, it can be said that they cannot attract the limited number of women technicians being produced by a few Engineering Colleges that are present in Nepal since such women technicians can join any agencies that offer better facilities to them. Table 6.1 depicts the figures of boy and girl students applying for study in civil engineering in the years 1997 and 1998 to Nepal Engineering Campus, the first and the largest Engineering Institute in Nepal. As reported by the officials of the Tribhuvan

University/Nepal, there are two other private engineering colleges in Kathmandu and the trend is the same in both of them.

Table 6.1: Numbers of Boy and Girl Students Applying for Civil Engineering Courses at the Nepal Engineering Campus in 1997 and 1998

Number of Students	**1997/98**			**1998/99**		
	Boys	**Girls**	**Total**	**Boys**	**Girls**	**Total**
Applicants	856	108	964	1261	203	1464
Entrance Test Passers	282	27	309	875	154	1029
Actual Enrollers	92	8	100	131	13	144

Source: Nepal Engineering Campus

First of all, it is essential to make it clear that the figures in Table 6.1 have not been presented in percentage terms since it limits the readers to look at the data from only one perspective, either vertically or horizontally. However, the presentation of only the absolute numbers allows the readers to analyse the data either way - column-wise or row-wise, both of which appear to be relevant in this case as supported by a number of observations which are as follows: i) though there is a big difference between the number of boy and girl students showing interest to study civil engineering the number of girl students has almost doubled in the second year (row-wise). However, very few of them got opportunities to study civil engineering due to limited seats available for them (column-wise). ii) A reasonable number of girl applicants are passing the entrance test showing their potential to study civil engineering (column-wise). iii) The proportion of girl students passing the entrance test is higher than the boy students in 1998/99 (column-wise). However, the proportion of girl students receiving the actual enrolment is lower than the boy students in both 1997/98 and 1998/99 (column-wise). Though the absolute number of girls receiving admission on the basis of their performance has increased in the second year (row-wise), their lower proportion in receiving admission (column-wise), which is on merit basis, indicates that they have difficulty to compete with boy students due to their relatively poor educational background. The reason

for the poor performance of girl students is because of parent's bias in providing good education to sons over daughters and asking for help in household chores to daughters rather than to sons.

Given the necessity of more women engineers to work in sectors such as drinking water for it to be effective in sustaining benefits to people and their small number receiving opportunity to study this subject, the following issues need to be given further attention: i) expansion of the civil engineering course by the government so that both the boy and the girl applicants passing the entrance test can study this subject, ii) preference to girl students if there is only a marginal difference in their performance as compared with that of boy students unless the government can absorb all the girl applicants passing the entrance test. This requires an increase in the present quota of 10% allocated to girl students passing the entrance test to redress the historical imbalance.

At present, because of the limited supply of women engineers and their high demand, they have better choices of joining the employment institutions that they prefer. If institutions like NEWAH, RWSSP and FRWSSSP offer good facilities to women employees, create an environment where women feel comfortable and secure, and assure them that women have at least the same career opportunities as men, they can definitely attract more women technicians. Appreciating this concern, Berger (1984) and INSTRAW News (1997) offer a number of recommendations including preparing a career guide for women technicians so that women can be attracted to work in technical positions. Regarding the need for an increase in the number of women staff in general and in technical positions in particular, an experience of the Ford Foundation is worth sharing here. In this agency, inclusion of a gender policy in development was accepted as a major agency goal, with 6% of agency funds to be directed to women's programmes in the mid-1980s. However, this shift in agency priorities did not occur until women staff became the majority (53.2%) of agency employees (Kardam, 1989).

Despite the need for attaining a gender balance in the organisational structure for the agencies to be able to formulate gender sensitive policies so as to meet the genuine needs and interests of both women and men in their project communities, the discussions made so far reveal that the organisational structure in all selected agencies (more so in RWSSP and FRWSSSP and

less so in NEWAH) is gender imbalance. There are a number of reasons that came out from the discussions with the agency staff for such a gender imbalance.

First, there are only a few women in senior posts (officer level) in all agencies; there are only two women officers each in RWSSP and FRWSSSP (both for the project period only) and five in NEWAH, which means men are the principal decision-makers in all three agencies. Accordingly, these senior men preferred to select more men than women as they think they can take more work from men than from women as the former have less household obligations and physical constraints to move around unlike the latter, and therefore the former can be more productive than the latter.

Second, the senior staff of all institutions still hold the view that women are 'better' in the health and sanitation sector than in the water sector, which has technical dimension, and thus should be left to men. This view was fine in the past when there was a lack of women technicians and thus the men in the management had no choice except to recruit mainly men as technicians in their agencies. This situation is, however, gradually changing as women also have started showing interest in technical job, as discussed above, though the senior management is not making serious efforts to tap such a limited number of women technicians.

Third, the senior management seem to have a poor understanding of gender issues in the development sector since they are of the opinion that if women can compete with men they have equal opportunities to join their agencies. Such a statement of the senior management compels one to say that either the men in the senior positions in these agencies need a thorough understanding of the women's situation in Nepal or are they fully biased against women. Given the fact that Nepalese women, especially those who come from rural areas, have less opportunity to go to schools and colleges, and even when they do it is mostly in public schools with a relatively poor quality of education, it is unreasonable to expect that the number of women applying for a post will be equal to the number of boys and that they will be equally qualified, so as to have an equal chance of being selected for further education and employment, as seen in Table 6.1.

Fourth, the lack of emphasis put by the donors on their policy documents on this matter is another reason why the organisational structure in all selected agencies is gender imbalance

since this led their partner agencies such as NEWAH, RWSSP and FRWSSSP, which see the former as their role model, to be not serious on this aspect.

These discussions raise a question whether it is essential that the institutions working in the water sector, where women's role is central, specify in their policy documents that a certain number or proportion of their staff will be women and thus provide scholarships to some girl students to meet this requirement. A condition that such institutions providing scholarships can put to the girl students is that the latter will have to work with the agency for a number of years - perhaps three to five. It is also essential that such women, once hired, are immediately given on-the-job training so that they feel competent to work together with their male colleagues. When these possibilities were discussed with the agency staff, they were well received by the NEWAH and the RWSSP staff provided their donors show interest to make such investment in women. However, the government staff, though they liked this idea, were not confident whether the government could do so since their level of investment in this field will need to be much higher due to their wider coverage in the sector than that of other agencies which are working in a limited area and thus need to make only limited investment. Nonetheless, they indicated that this kind of arrangement can perhaps be initiated at a small scale and given good outcomes it can then be expanded to a bigger scale.

The conclusion of these discussions is that among the various issues that need proper attention in order to translate gender-related policy matters into action, one concerns the need for a sizeable number of women in the institutions working in the water sector. Also important are the issues of women's adequate representation in the senior positions and the necessity for a change in the tendency of recruiting only women for work in the soft sector and men for the technical sector.

6.1.5 Organisational Culture and Management Style

Organisational culture is the personality of an organisation; if the organisation's structure can be thought of as its body, its personality or soul is the way people deal with each other and the values and beliefs that are dominant. Organisational culture determines the conventions and unwritten rules of the organisation, its norms of co-operation and conflict, and its channels for exerting influence (Macdonald et al. 1997). In simple terms, the organisational

culture means a number of things that are happening daily in an organisation. The following section deals briefly with those issues from a gender perspective.

One important determinant of an organisational culture is the distribution of power and authority between the women and men employees. In all three agencies, it was reported by the women interviewed that they feel less powerful than their male counterparts working at the same level. They have the impression that because they have to be absent from the office from time to time because of their reproductive roles, and as their number is small, leading, of course to their negligible representation at the policy-making level, the management, which is, of course, male dominated, listens more to the male staff than to themselves. This fact was implicitly supported by the male staff as well, as most of them have the attitude that they are more useful for the institution and also more effective than their female counterparts, since they are ready to serve the institution at any time, unlike the female staff. This situation not only indicates a lack of trust on the part of women employees towards the management but also the lack of understanding of the women's other roles and responsibilities among the male staff and the management, which is a negative factor in institutionalising gender aspects. Supporting this argument, Macdonald et al. (1997) write that a people-friendly organisation should take account of women's reproductive roles and plan them into its structure, administration and physical arrangements. It is necessary that every organisation recognises that women have public as well as private lives and the events in one affect their role in the other.

Other factors that might indicate the gender sensitivity of an organisation's culture are: the types of work that men and women are involved in, the values given to women's perspectives and the opportunities that women have to express their interests (Goetz 1995 in Macdonald et al. 1997). In this regard also, none of the three agencies have a positive organisational culture as almost all women are in the 'software' sectors and at lower levels, though NEWAH is making some efforts both to bring women into the technical sectors as well as into the senior levels and to introduce men into the health sector. In terms of opportunities for women to express their feelings, the female staff at NEWAH have more possibilities than their counterparts in RWSSP and the FRWSSSP. Unfortunately, the women staff at the FRWSSSP, especially those working in field and in district offices feel that they have no right to say anything at all, but must listen to their seniors and do what they are asked. The

situation of women in RWSSP and NEWAH is slightly better than that of their counterparts at FRWSSSP, but, here also such a privilege is enjoyed only by the women in senior positions. What has to be kept in mind by these institutions is that whatever positive steps they introduce in their agencies they should have firm roots and should be backed up by policy. Otherwise, such positive steps will have no guarantee that the number of women will keep increasing in the organisation as experienced in BRAC (Rao and Kelleher, 1995 in Macdonald et al. 1997).

The staff's level of understanding of gender issues in the development sector in general and in water supplies in particular is another significant determinant of the culture of an organisation working in social development. However, from a discussion about women's and men's roles and responsibilities in the water sector and the effects the water projects might have on them, the understanding of gender issues has been found to be poor among the majority of the staff of all institutions studied; this is more marked at FRWSSSP and less so at NEWAH. Even among the staff who have heard of gender issues in these agencies, their understanding is limited only to the fact that gender refers to women's issues. In particular, a majority of the staff at FRWSSSP have a narrow thinking about women's role in water supplies, as they consider that, it is because women are the primary beneficiaries of the improved water services that they need to be involved. They see women's involvement mainly during implementation phase for providing labour and during post-construction phase for cleaning and protecting the water sources, and maintaining hygiene at the household. For them there is no gender issue (in other words, conflict or difference between women and men) in water supplies.

The junior staff at NEWAH and RWSSP also have the same understanding of women's role in water supplies, while a majority of the senior staff see women's involvement not only for their welfare but also for the efficiency of the water supplies. Their understanding of gender issues in water supplies is slightly higher than those at FRWSSSP as they feel that because women have a lot of knowledge and concerns, as they are the primary actors users of water resources, their lack of involvement at various stages can affect the projects in the long run. Out of the many staff interviewed in these agencies only three people (2 women and 1 man) at NEWAH and two people each at RWSSP and FRWSSSP (1 woman and 1 man in each) appreciated women's involvement as a means to their empowerment (to meet their strategic

gender interests). Nonetheless, the others also think that women can get involved in some income-generating activities in the time saved from water hauling which can bring many positive changes in the household, but again, they are not clear how women can do so since none of the agencies have such provisions at present and there are very few opportunities available locally, especially for women, in the rural areas of Nepal.

An equally important determinant of the culture of an organisation, in relation to gender, is whether it is willing to change in terms of gender equality. If a majority of the staff in the organisation are willing for this kind of change then the change becomes an institutional goal and it can be achieved in a relatively short period of time. On the other hand, if the need for such a change is felt by only a handful of people, especially women, then the institutional change is either impossible or takes a long time, which implies that the organisation has not yet been able to institutionalise organisational learning. From her experience with ACORD's programme in Gulu and Gao, Hadjipateras (1998) notes that because gender objectives are accepted as a collective staff responsibility in Gulu, a gender committee comprising representatives of all programme components was formed and thus, the gender awareness of the staff here was much higher than that of the staff in Gao, where a women's officer post was created to take on chief responsibility for gender with little support from the rest of the staff.

Recently, in NEWAH, a majority of the staff have been seen to be in favour of a change, which is leading to the undertaking of a number of gender related activities, such as workshops, training, reviews of the strategic plan, project implementation procedures, and personnel policy, establishment of gender and poverty units, and implementation of some pilot projects with a focus on gender and poverty. However, some fear is also observed among some male staff regarding how the change might affect them in terms of the power and the facilities that they are presently enjoying. In such a situation, the role of the Director has been very crucial as he has been gradually clarifying the issues and motivating the other staff about the advantages of bringing changes related to gender in the organisation.

On the other hand, in FRWSSSP and to a lesser degree in RWSSP, gender has been taken as a token by a majority of the staff and hence these organisations are not keen for a rapid change in the present working style. For example, the expatriates in the management in RWSSP are

evidently not prepared for this kind of change as they could not decide whether they would introduce even such basic facilities as maternity leave for women and crematory leave for men in their organisation. Both in RWSSP and FRWSSSP, the concern is more centred on completing the projects and less about women's empowerment (though the second and the third phases of RWSSP appear to have addressed women's issues more than the first one, as can be seen from the project documents). Nonetheless, some staff working in the FRWSSSP are slightly more positive about gender issues than those working in the main government structure as was noticed from their curiosity in knowing from the researcher about how their activities can be made more gender sensitive. This positive attitude is the result of their close interaction with the consultant teams, which is, however, less in the case of the staff working in the main structure of the DWSS.

The provision for separate lavatories, childcare and transportation facilities for all women staff regardless of their seniority etc. is another determinant of the organisational culture. However, the lack of these provisions for women staff in the selected agencies indicates that they do not have a culture where differentials between men and women are thoroughly considered.

Similarly, the rituals such as whether staff eat together, how they greet each other, how meetings are organised, etc., are also relevant determinants of organisational culture. The relationship between the senior and junior staff is very formal and official in the FRWSSSP, where everything is done based on one's level in the organisational hierarchy. On the contrary, the staff at NEWAH seem very friendly with each other, as they eat together and make jokes about each other, though at the same time the way that they greet their seniors with a certain formality, backed up by each person's level in hierarchy, can be observed. The situation in RWSSP is rather different, as the people in the management are non-Nepalis and hence there exists a different kind of relationship between the management and the Nepali staff. While the senior staff were observed to be more friendly with the management, a large gap exists with the lower staff. The male staff have a closer relationship with the RWSSP management than the female staff.

The management style (participatory vs. top down) of an institution is also a determinant of its culture. If an agency is following a participatory approach in managing its projects, then it

is natural that the staff in such an agency will have more participatory attitudes than in those which are not following this approach. For example, because NEWAH is following a participatory approach in the implementation of its water supplies there are more interactions between the senior staff and the lower staff through frequent training, workshops, regular monthly and quarterly meetings, etc. Because the organisational culture in NEWAH promotes participatory processes in all its internal activities, it has more women staff at all levels, it has introduced gender and poverty units with both men and women as members, it has relatively more women in the senior positions though not yet in the policy-making bodies, more women's involvement in decision-making, leading to more facilities for women, more women's participation in project meetings, etc. This is not, however, the case with RWSSP and FRWSSSP, which are less participatory than NEWAH in their management of water supplies (the project management process will be dealt with in greater detail in the following sections). Because the practices in these agencies are still guided by a blueprint approach (though they are not on paper), there are less interactions between the senior staff and the junior staff, the junior staff have not attended any meetings for months, there are less women staff in general and in policy-making bodies in particular, etc. This has all led the women staff in RWSSP and FRWSSSP to have more problems in terms of lack of various facilities than the women staff in NEWAH. This is quite obvious in FRWSSSP where the management is keen to recruit women more as temporary staff than as permanent staff.

On the other hand, the participatory organisational culture can also lead to broader institutional objectives that can contribute to sustainable human development as can be seen from a comparison of some objectives of NEWAH with those of RWSSP (Box 18).

Box 18: Broader Institutional Objectives as the Outcomes of Participatory Organisational Culture

Apart from making safe drinking water and better sanitation and hygienic services available to the local people, NEWAH also aims to i) help develop the capacity of local partners and communities to undertake other development activities, and ii) contribute towards human resource development within the sector (NEWAH, 1997). On the other hand, the objective of RWSSP is considerably more technical and target oriented as it aims for "the provision and promotion of use of safe, sustainable water supplies and improved sanitary facilities in accordance with national guidelines to 100,000 people...and the development of institutional and local capability to operate, manage, extend, upgrade and maintain the water supply and sanitation systems...

What can be inferred from the above discussions is that the organisational culture in the selected institutions is still not fully gender sensitive though NEWAH is much ahead of RWSSP and FRWSSSP in this respect. Even at NEWAH, because the GAD activities have recently been started, their impact in meeting women's strategic gender interests are yet to be seen. Nonetheless, there have been some few positive effects of such activities at NEWAH which will be discussed in Chapter 7. With regard to the reasons why the selected agencies in general do not have a women-friendly organisational culture, one is related to the fact that the organisational environment has historically been in favour of men. This is only recently that women in countries like that of Nepal have started to work in offices outside their home. As a result of this short history of working women and their small numbers, neither the women themselves nor the men in the senior positions have been able to think of various ways that can help to improve the organisational culture in their agencies. This reason, along with the senior men's inability to see the connection between the women-friendly culture, presence of more women, and positive project results, has led to the former's lack of attention to improving their organisational culture. Hence, what are thus required among the male senior staff in any agency are: a better and clearer understanding of women's various roles in general and in water supplies in particular, positive attitudes towards gender related change, and more interactions with each other if they want to see their projects contributing to sustainable human development through achieving gender equality between women and men at all levels.

6.1.6 Provision for Training on Gender Issues

Gender training is important both to raise awareness of the issues, and to provide concepts and techniques for programme workers. Such training is useful but its impact is easily reduced if only token individuals are trained. Team workshops in the field can help to counter this; and people in positions of influence should receive training (May, 1997). In turn, if the institutional policies, goals and strategies, and practices are gender sensitive this can eventually help to bring gender equality in the project communities. Some issues that emerge about the institutionalisation of gender training are: contents of the training (whether poverty is a focus since it is a major gender issue); types of training - formal, in the form of workshop or meeting, or group discussions or orientation; beneficiaries of the training - policy-makers, senior staff, men or women or both, project staff, project beneficiaries - women and/or men;

duration of the training; frequency of the training; availability of financial and human resources on a regular basis for the training; etc. The gender training which is provided only to a few staff, is one-off in nature, and which does not have funds for follow-up activities will not have any impact in the long run as against the training which has been mainstreamed by addressing all these issues.

Despite the importance of these issues related to gender training, none of the selected institutions has given much attention to this aspect, though it is gradually improving in NEWAH. Among the three institutions only six staff, four females and two males, at NEWAH have received training on gender issues. Recently, in January 1999, a five-day long gender workshop (the first in NEWAH's history) was organised by NEWAH for its senior staff (6 women and 12 men) and a week long training of trainers on gender was held for its 31 staff (7 women and 24 men) in June 1999. In the case of RWSSP and FRWSSSP no one has been given formal training on gender; some of the senior staff who are directly involved in the project management have attended workshops where gender issues were partly covered.

Ironically, none of the agencies has any definite plan to provide gender training to its staff, though the senior staff in all agencies said that it is necessary. This is an indication that the management is not yet seriously concerned about the negative impact of their gender insensitive policies on projects, which are designed to meet people's, including women's, needs and interests. This is caused by lack of proper orientation of the staff involved in the preparation of such projects. Even in NEWAH, where some capacity building activities have taken place, there is no plan to define how, what and when they want to carry out such training activities in the future, which indicates that all the attempts made so far in this regard have been on an ad hoc basis. This is confirmed by the latest strategic plan of NEWAH (NEWAH, 1998) which is totally silent about training on gender aspects for its staff although it mentions a number of other activities to develop its human resources. Training which is conducted in the absence of a thorough plan can be a waste in the long run. As Levy (1998) points out, one clear recipe for wasted training is women and men returning to their organisations after gender training, without the support of a clear gendered policy framework and/or gender-aware procedures. If new skills are not used, they will soon be forgotten.

The main reasons for the lack of planning for gender training appear to be the small number of women in the organisations and the lack of seriousness among the people in management positions about gender issues. As a result, the policy-formulation process becomes gender insensitive and people with poor orientation on gender issues design gender blind policies, goals and strategies, as discussed earlier, which eventually lead to the planning of the projects that are unable to fully meet people's needs or to empower women through meeting their strategic interests, as will be discussed in the section on 'project cycle management' and Chapter 7.

On the other hand, highlighting the importance of training on gender issues Hadjipateras (1997), with her experience of ACORD, notes that raising awareness of gender issues among both men and women, using tools of gender analysis such as the Harvard Framework, is perhaps the single most effective means of improving and potentially transforming gender relations. In ACORD's London Secretariat, gender training helped to reveal subtle forms of gender discrimination operating within the office. In addition, training was found to be most effective when closely linked to programme activities. In Mali, staff who participated in a regional gender workshop claimed that this marked a turning point in the programme's approach; previously, women's activities were completely marginalised, whereas after the workshop, staff were at least attempting to integrate women together with men fully into the programme's main activities. However, the research findings suggested that unless gender training for staff is regularly updated, and includes all staff, not only gender specialists, its impact is limited.

Though gender issues are complex, sensitive and can raise expectations and invite threats (Macdonald, 1994) it is important that both women and men receive gender training. As May (1997) has written following the gender training organised in Oxfam, such training has opened opportunities for changes in programme planning, ways of working, and analysis of issues. Some examples of changes have been country programme gender policies; inclusion of gender issues in criteria for project funding; application of gender awareness to planning and evaluation exercises; and work with partner organisations to raise and address gender-related issues.

As with senior staff, gender training is also important for the project staff, not only to raise their awareness of the issues but also to help them to realise that the women and men in the community have different roles, needs and constraints and their participation in project activities is determined by all these factors. However, it is an irony that none of the institutions has provided gender training to their project staff. The project staff have been provided some training on issues related to community development, PRA methodology, etc., but, gender has not been included as a component in any of those training events. As a result, the project staff are concerned more with the completion of their projects than with the gender dimensions in their project design, planning and implementation procedures. In turn, the projects failed to solicit women's participation leading to their inability to meet women's genuine needs, to bring equity among the project beneficiaries, and to empower women, as will be discussed in the following sections.

Supporting the importance of gender training to the front line people such as overseers, technicians, health supervisors and motivators, who are responsible for the design, planning and implementation of projects, both one HMG/Nepal report (1995) referring directly to the water and energy sectors, and May (1997) drawing on Oxfam's experience world-wide, state that provisions should be made for implementing gender analysis training for agency staff, which directly relates to their work. This will increase their skills in understanding and analysing gender dynamics and successfully implementing water projects. Emphasising the role of gender training for both the senior management and the field level staff, Moser (1993) also argues for the need for various types of training to be provided at different levels, with different purposes, so as to increase their effectiveness. She suggests three types of training for this purpose: gender analysis training, gender planning training, and gender dynamics training; each of these should have one or more of the following four objectives: sensitisation or awareness raising, skill transfer in gender analysis and diagnosis, translation of skills into planning practice, and motivational factors.

Because of the lack of a clear policy on gender training, the staff in all selected institutions have difficulty in looking at their activities critically. They have the feeling that the way they have been implementing water projects has no better alternative. Their understanding of 'development' is limited to making water available near people's homes, but without much focus on what it really means in terms of changing women's and men's lives by meeting their

strategic gender interests. The lack of a plan for gender training has also blocked institutional learning in terms of how much impact the water related activities have brought among women and men. As Macdonald (1994) argues, gender training is an instrument of institutional learning, a way of systematising experience of gender related issues. It makes people look critically at the work culture of their institution and realise that they still have a long way to go in engendering their institution if the ultimate goal is sustainable development.

Given the above discussions it can be concluded that the selected agencies have not yet given (more so in case of RWSSP and FRWSSSP and less so in case of NEWAH) much attention on gender training to their staff at any level though it is an important issue to be considered by water agencies if they want to plan, design and implement water projects that can best meet the practical gender needs and strategic gender interests of the local people, especially women, without which neither women's empowerment nor sustainable human development is possible. Regarding the reasons for the selected agencies' poor attention on this aspect they are just like the ones discussed earlier: lack of seriousness on the GAD work; lack of ability to judge the impacts of works performed by gender sensitive staff; lack of ability to understand that women and men in the project communities have different needs and concerns and thus cannot be addressed with one single approach; and the general notion that men can easily represent women and their needs and problems. The other equally important reason is the lack of focus by the donors on this aspect in their policy documents.

For example, WaterAid has mentioned a number of capacity building activities for its staff and partner agencies in its strategic plan but gender is not in this list, as has already been discussed in Chapter 5. Similarly, Cleaver and Jobes (1996) note that despite its acknowledged importance, FINNIDA's in-house training programme has been severely curtailed and is no longer obligatory for all staff due to budget constraints, although it remains so for field staff. These reasons for the lack of attention on gender training to their staff led the agencies not to make any provision of funds for gender training. This resulted into a situation where even when these agencies wanted to organise some gender training for their staff they did not have adequate fund for it (especially in cases of RWSSP and FRWSSSP).

Hence, to conclude the discussion on gender training, it needs to be said that since a one-off training cannot have much impact on the staff (Macdonald, 1994; May, 1997) who are influenced by patriarchal structures especially in a country like Nepal, a series of training and workshop activities needs to be planned well in advance. Building staff's capacity on gender issues followed by timely evaluation of the progress is another critical issue to be paid due attention as a regular institutional activity so that the gender views are always reinforced for their better use in various stages of water projects. An adequate budgetary provision needs to be made to carry out all these training and workshops on gender aspects. The next section deals with the emphasis put by the selected agencies on this aspect.

6.1.7 Resource Commitment

Good community development processes require long-term commitment, particularly if the more disadvantaged members of community are to receive support (May, 1997). However, the limited resources made available by the selected institutions for GAD activities show that they do not have any real commitment towards making their institutions gender sensitive. Among the three institutions, NEWAH has more money available for GAD activities through various sources as follows, though it has not allocated any funds for this activity in its own annual budget.

WaterAid/UK has allocated £15,000 for various training activities for NEWAH in 1998/1999, of which one-half to one-third is available for gender training upon request from NEWAH. Similarly, WaterAid/Nepal has a budget of £7,500 for local consultants, half of which is for gender and socio-economic studies; NEWAH can request to make use of this fund for gender-related activities. NEWAH also has access to £5,300 allocated by the PAR/IRC project for dissemination of the project outcome. This money can also be used for training of a gender and poverty unit and other GAD activities. NEWAH is also likely to sign one contract with DFID soon, some money from which can also be used for GAD activities. In addition to all this, NEWAH can also use part of its regular budget which is £630,889 (£445,760 from WaterAid and £185,129 from DFID) for 1998/99 for GAD activities (NEWAH, Project Summary for 1998/99 by Region and personal communication).

Despite all these funds, only £3,200 (0.5% of total NEWAH budget) has been spent on GAD activities - a gender sensitisation workshop and training of trainers on gender, both in 1999.

Though NEWAH could mobilise one or more of the funds mentioned above for GAD activities, through requests to the concerned agencies, it was reported that no attempts have been made yet by NEWAH to do so. The main reasons are reported to be the lack of clear understanding within NEWAH about gender issues in the water and sanitation sector and lack of seriousness to work on GAD activities. The situation is, however, gradually changing as more GAD activities are taking place in various forms, including a workshop, training, hiring of a short-term gender consultant, forming a gender and poverty unit, review of policies etc. though the continuity of these activities remain questionable in the absence of commitment in the form of explicit policies.

In the case of RWSSP, the total cost of the project was Finnish Mark (FM) 50.53 million in Phase I and FM 17.42 million and Nepali Rs. 58 million in Phase II. Out of FM 50.53 million in Phase I, FM 0.85 million was allocated for human resource development, but, not even a single mark of this budget component was spent on any GAD related activities - training, workshops etc. Unfortunately, in Phase II, this component is not even mentioned either in the main budget sheet or in the work plan prepared for each year, and hence there is no question of any major GAD activities being envisioned in the second phase. The only activity that is directly related to GAD, carried out by the RWSSP, was the undertaking of a GAD study of the project areas by a Finnish Consultant in 1997. However, even in this case, the consultant was paid directly by FINNIDA and not by RWSSP. In the project document prepared for Phase III, which is not yet approved, provision has been made for a separate component on GAD with a specific budget. This component also includes the cost of a gender specialist and training on GAD for all concerned individuals including the staff from the partner organisations such as government, NGOs etc. It is clear that no budgetary provision was made for GAD in phases I and II and the reason reported for this was the lack of appropriate awareness of the importance of gender-related changes among the agency staff. Apparently, the other possible reason is the biased attitudes of the male policy-makers, including foreign expatriates' towards such changes.

Similarly, in the case of FRWSSSP, though the project has a total budget of US$ 26 million over five years (1997-2002), $19 million (73%) has been allocated for hardware under the heading 'water supply and sanitation', $6 million (23%) for 'institutional strengthening' through consultants, and only $1 million (4%) for software under the heading 'community

awareness and education programme' (CAEP). The CAEP includes activities such as WUC training, project management training, village maintenance workers training, health and sanitation training etc. for the community. It does not, however, include any programme related directly to GAD. Under the institutional strengthening budget of US$ 6 million, only US$ 0.25 million has been allowed for social components. A review of the breakdown of this amount shows that only US$ 0.02 million (8%) has been allocated for training, but, this is not to be spent on GAD but rather on health and sanitation training, teachers' training, WUC training on project management etc. The senior staff of the FRWSSSP reported that lack of proper understanding about gender was the main reason for not allocating any money for GAD activities. In addition, the senior staff's lack of interest compounded by their biased attitudes towards gender-related changes is another possible reason for lack of money for GAD activities.

None of the selected agencies has been serious in providing appropriate human resources to carry out GAD activities though the realisation of the need for gender sensitive persons in the institution has come earlier in NEWAH than in RWSSP and FRWSSSP. Even in NEWAH such sensitivity was not seen until after the first two years of this research. A female expatriate with a specialisation in gender has been hired by WaterAid in consultation with NEWAH, for one year, to point out the gender gaps in NEWAH activities. Under the initiation of this person one gender workshop, one training of trainers on gender, and the formation of various committees, called gender and poverty units, at both regional and central levels, have all taken place. The staff at NEWAH are of the opinion that it is not necessary to employ a gender specialist in their organisation. Instead they want all the staff to be trained on gender and integrate gender approach in all their activities.

Though this seems to be a good idea in the long run, the danger with this approach is that in the absence of a person with specific responsibilities on gender issues, the focus on GAD activities might disappear. This is what is happening at present (mid-1999) in NEWAH since the staff have not been able to do much even with their various gender and poverty units. The reason for this danger is that when all are made responsible for one activity it becomes no one's responsibility in the long run, as it ceases to be anyone's first priority. In this regard, Cleaver and Jobes (1996) note that in the presence of a gender unit or a gender person there is a risk that staff may not involve in gender works saying that 'it is not their department'.

Conversely, a system whereby all individuals are made responsible for gender policy implementation may result in no one actually being accountable. It would therefore seem important to institutionalise an accountable gender strategy. Hence, Hamerschlag and Reerink (1998) from a survey of 30 InterAction Member Agencies including ADRA, Save the Children, and Oxfam America, suggest that though there is a debate about which kind of structure is most effective, institutional experiences indicate that it is important and necessary to adopt both strategies. By including both a separate gender officer or unit as well as a specialised gender person in each department, organisations will be more successful in mainstreaming gender equity concerns.

On the other hand, RWSSP, though funded by FINNIDA, which is considered to be relatively better aware of gender issues, appears to be treating GAD issues with little importance as it did not have any person to ensure gender sensitivity in their work in Phases I and II. Accordingly, even if the project documents demanded that there should be two women in a local WUC, water supplies were implemented even with only one or without any women in the WUCs. For example, the WUC of Belbhariya (Gajedi), where the field work of this research was undertaken, has only one woman member. In another eight WUCs in the Gajedi VDC, only two have women (one has one woman and the other has two women). It was reported by the RWSSP DSU staff that this is common in other WUCs in other villages too. This weakness was pointed out by both one FINNIDA evaluation team and a gender consultant who carried out a gender study in the project area. These reasons, along with their own learning from Phases I and II and the discussions with this researcher, led RWSSP officials to make a provision for a gender specialist in Phase III.

The situation in FRWSSSP in terms of ensuring gender sensitivity in its activities is not so encouraging though the DWSS officials claim that this fourth project has addressed gender issues more seriously than the first three sector projects. In FRWSSSP, a consultant team of five persons has been hired to undertake work on social components which has only a partial focus on GAD activities, as discussed earlier. The discussions with some of the consultant team members revealed that it is very difficult for them to inject the importance of social and gender dimensions into the minds of the government staff, both senior and junior, and they all think that the consultants are there only for a limited period of time and they have no rights and authority to push gender into the mainstream of the government work.

In this regard, some of the senior DWSS officials said that the DWSS team itself will have to continue the consultant team's activities on social development after the consultant's term is over. Accordingly, some sociologists have been hired by the project to work with the consultant team so as to give continuity to the latter's activities. However, the results of the discussions with the consultant team, RPMO and DWSO staff, and the sociologists themselves show that the DWSS might not be able to continue the consultant's work effectively. The reasons are that a majority of the technicians are still not serious about the importance of social dimensions of the projects; the senior government staff working in the project seldom go to the field due to the lack of adequate facilities such as per diem (and the question of safety and security in case of women staff) and thus they are not fully aware of gender issues in water supplies; there is often a rush on the part of the project staff to finish the given work to avoid spending overnight and staying out for long periods in the field; and, some senior staff, including some sociologists, from the DWSO and the RPMO office, are frequently absent. Because of all these reasons, it can be said that the social dimensions including the gender aspects are not properly understood by the FRWSSSP staff and hence they might have difficulty to continue the social development activities in the absence of the consultant team. One other reason for the apparent lack of seriousness on the part of these sociologists, who are actually considered to be playing a major role after the consultant team has left, is because most of them are temporary and therefore they are less interested in the project work. Due to all this, it is hard to envisage that the project will have any substantial impact in changing community women's and men's lives.

The lack of adequate resources, both capital and human, will have tremendous effects in realising any project objectives related either to women's strategic gender interests or both women's and men's practical gender needs. Jahan (1995) and Hadjipateras (1997) support this argument as they note that the lack of resources leads to agencies' failure to promote gender work including an increase in the number of women staff, implementation of gender sensitive policies, etc. which will have facilitated the process of meeting women's practical as well as strategic needs and interests at the community level. They, along with Macdonald et al. (1997), further go on to say that the type of human resources, especially the consultants used for social and GAD activities is also part of the problem, as they often lack authority, access and continuity unlike the regular staff. What is thus required is the provision for

adequate capital and human resources (in the form of gender unit or gender specialist) with appropriate authority in the case of the institutions engaged in the water sector.

The key issues that appear from the above discussions are: the need for allocating adequate financial resources specifying that they are for GAD activities, including allowances for the field staff who have to work with local people, including women, that takes longer time, and making provision for appropriate human resources who are permanent staff, with authority and power, and who can push gender onto the agenda of the agencies. An equally important issue concerns developing a vision for integrating gender in all institutional activities in the long run, though this responsibility might have to be taken by a full time gender person or a gender unit in the beginning, until all staff in the agencies have received gender training and have appreciated the importance of engendering their agencies and working style. At present, however, all selected agencies - more so the RWSSP and FRWSSSP and less so the NEWAH - have been found addressing these issues inadequately in their agencies. The main reasons for this inadequate attention of the selected agencies on human and capital resources for gender works are similar to those discussed in the previous section.

One other reason that is particularly related in this case, apart from those discussed above, for this inadequate attention on resources, is a kind of conflict or misunderstanding between the understanding of donors and their partners regarding the GAD works. While all the missions coming from the ADB/Manila to review the work of the DWSS, from FINNIDA/Helsinki to review the work of the RWSSP, and WaterAid/London to review the work of NEWAH, have pointed out that a gender perspective is lacking in their partner agencies' work, the concerned personnel/units/divisions of these organisations which review the annual or the project budget of their partners do not point out that the budget does not have any provision for GAD works.

Similarly, the other issue of concern related to this misunderstanding is that the donor agencies have given more emphasis on factors such as the number of projects to be implemented in a year, the number of beneficiaries, and cost per capita, but, not on the quality of work in terms of their partner agencies' concerns to address gender issues so as to improve women's, in relation to men's, lives both practically and strategically. The senior staff of the selected agencies said that the focus on gender aspects will increase the cost of their projects in terms of time, finance, and human resources, which means less number of projects with the

current budget. On the other hand, they do not find their donors being too keen to increase their proportion of funding for this matter of addressing gender issues. Though this misunderstanding is more pronounced in RWSSP and FRWSSSP than in NEWAH, where WaterAid has started funding a number of GAD activities, this issue needs to be made clear between the donors and the partners with regard to how much extra fund will the former be willing to add on its present funding if the latter is to start addressing gender issues in its water supply activities so that the latter do not feel financially constrained to be truly gender sensitive in their work.

6.1.8 Role of Change Agents

Change agents are those who are willing to assist and can be instrumental in bringing about reforms in terms of gender in an institution. According to Macdonald et al. (1997), such change agents need three things: modest aims and ambitions since changing the personality - the soul - of an organisation can be a very difficult and painful process; an understanding of the organisational culture so as to find out clues to how it can be changed; and flexibility in strategy, to determine which among the following three, persuasion, pressure and 'win-win', works best.

In NEWAH it is the Director, who is a male, and the three senior women staff working in the health section who are keen to see gender related changes. They are the staff-members who have been raising gender issues in official meetings; the other male staff are less keen to discuss gender issues. One recent example concerned the transportation problem faced by women staff to and from the office. This issue, while raised by the senior female staff, was supported more by the Director than others. The female staff reported that this is what usually happens whenever they raise certain problems related to them in other meetings. Among this group, the Director, because of his position and power, is the most instrumental person in supporting GAD policies and activities. The experience so far is that the Director himself does not put any gender issues on the agenda but extends his support whenever women raise such issues in the meetings. On the other hand, the women staff feel that it is very difficult for them to raise their problems themselves. If a male staff-member raises problems they receive more attention from other male colleagues. Whatever gender related activities are taking place in NEWAH are dependent on the support of the Director.

Despite knowing the various other GAD activities that need to be introduced in the organisation he is, however, still not able to undertake all of them as he thinks it is a gradual process and it will take time to change the attitude of the other male staff. The new GAD policies should be formulated without antagonising the other male staff but the aim should be to convince and motivate them to be supportive. Indeed, the Director and the female staff feel that the other male senior staff are gradually changing. In the past, they were not ready even to listen to women's issues; now, they do talk about gender issues. They are now more open than before.

In RWSSP, it is the male institutional advisor and the female health advisor who see themselves as change agents in terms of introducing GAD activities. Even between these two the role of the institutional advisor is more crucial as he is the one who is involved in the preparation of all project documents and institutional report writing. In the meetings, it is the female health advisor who raises GAD issues, normally supported by the institutional advisor; the other senior male staff are not, however, so keen on this matter. Despite this situation, there are many areas where these two still have not been able to make major changes in the formulation of GAD policies and implementation of GAD related activities, such as increasing the presence of more women in the PSU and DSU team and in the WUCs, organising gender training for staff, hiring a gender person, etc.

The main reason is that the RWSSP is a bi-lateral project, where the expatriates in the management play key roles in making major decisions; unfortunately, these expatriates are not so concerned about gender issues. One small example is of maternity and crematory leave which has not been introduced in this project despite these issues being continuously raised by these two persons. The lesson learned from this issue is that even a genuine issue, which has very widespread support in Nepal, is difficult to put on the agenda if the people in the management, especially if they are foreigners and hold all the power to hire and fire staff at their own discretion, do not feel that it is important. Nonetheless, continued efforts can definitely yield positive results, as these change agents have been able to put many of the issues discussed above into the project document for Phase III, which has already been accepted by the Finnish government and is waiting for approval from the government of Nepal.

Contrary to the situation of NEWAH and RWSSP, no change agents were observed and their presence was not reported in FRWSSSP. The relatively young male officers, especially those working at the CPMO, RPMO and the DWSO, and the female staff, are positive about gender issues, as they said, 'one major reason for the failure of more projects implemented by the government than those run by NGOs is the lack of attention towards gender aspects in the projects'. However, because they are low in the hierarchy, they are not in a position to influence policy matters nor even to raise gender issues, as they do not have any suitable forum for this. Moreover, the main concerns of such staff are also related to other things, such as how they can make more money and get better facilities, as their senior colleagues have been able to do. This intention of the junior male and female officers is not surprising as the engineering sector is well known for providing opportunities for making extra income, and they have seen their senior officers doing the same. Hence, gender continues to be an issue of little concern in the FRWSSSP, among all staff. Based on the field work of this research with the FRWSSSP it can be said that the change in this project, in terms of GAD related activities, might come mainly through international pressure from ADB, the World Bank and national pressure from NGOs (e.g. NEWAH), and women's groups. It is also essential that the consultants responsible for social development are aware of gender issues so that they can build and integrate this concept into their regular activities, which is not, however, happening at present.

Following the classification of Macdonald et al. (1997), the change agents in NEWAH and RWSSP can be termed as 'players' as opposed to 'lone pioneer' or 'fighter' - as they are diplomatic and pragmatic, and trying to build alliances and strategies both with the staff and the management, and are negotiating gender policies not just for the benefits of one group of people but for the overall organisation. However, such agents do not exist in the FRWSSSP structure at present. One major issue that has emerged from the above discussions is that the higher the level of the 'supposed to be change agents' the greater is the possibility of addressing gender concerns in the agency. The case in point is NEWAH. As Hamerschlag and Reerink (1998) also comment, the literature as well as member agency experiences affirm that in order for principles of gender equity to be fully integrated into an organisation's programme and policies, there must be support and leadership, from senior management particularly the chief executive officer.

To conclude this review of institutional policies and practices, it should be noted that all the institutional issues discussed in this section are complementary to each other and none of them on its own will succeed in making an institution gender sensitive. For example, there can be provision for gender training for the employees, but if there is no change in the organisational structure and culture, making them more conducive to women, the training alone may not be able to make any major change. Hence the need is to look at all institutional activities in totality when the purpose is to engender the agency for achieving a society with equality between women and men. It does not, however, mean that if an agency is not in a situation to address all these issues together it should not address any. The message is rather that in such a situation the impact will be limited as against the impacts that can be seen when all issues are properly addressed.

6.2 Project Cycle Management

This section attempts to analyse the project cycle management procedures of NEWAH, RWSSP and FRWSSSP, as presented in the documents of each institution (NEWAH, 1996; RWSSP, 1996; HMG/Nepal, 1996; Brochures and Leaflets; and personal communication), which are summarised in Appendix 6, and the procedures actually followed while carrying out the selected projects, as presented in Appendix 7, from a gender perspective. Due to the lack of literature presenting systematic analysis of the whole cycle of water supply developments it has been difficult to substantiate the field results in some of the sections below from secondary references.

Among the three institutions NEWAH has been using Participatory Rural Appraisal (PRA) techniques since 1993/94. It carries out all its pre-feasibility/feasibility and more detailed surveys following PRA techniques. Most of its staff have been trained in PRA techniques. In RWSSP, though the participatory approach was said to have been adopted in Phase I (1990-95), the fact that this was implemented by DWSO staff, who did not have any background in using PRA techniques at that time, led to their overlooking the importance of involving local people, especially women, in project activities from time to time. In the FRWSSSP, a participatory approach, under the name of Rapid Assessment Procedures (RAP), is in use since the Third ADB funded project. It was reported that the DWSS runs nearly 100 projects every year and it is therefore impossible for the agency to look after the operation and

maintenance aspects of so many projects, due to limited time and other resources. Hence, the concept of participatory approaches was adopted so that the local community itself takes the responsibility for the completed projects. However, because the RAP technique is rather rapid, with more focus on the collection of information than on the process, there is always a risk that the local women are bypassed by the project activities, as it is time consuming to work with women for various reasons such as their illiteracy, lack of experience, restrictions to come out of home, etc. The outcomes of the participatory processes followed by each selected agency are discussed below:

6.2.1 Pre-Construction Phase

This section analyses the major steps followed by the selected agencies while finalising their projects, studied from a gender perspective.

Request for Water: Local women were not involved while finalising the request for water to any of the three institutions, as all the local people contacting and visiting the concerned authorities in these agencies and signing the applications were males. Yet, the requests were considered for follow up activities instead of sending them back with a message that women should also be involved in these stages. Since this step is the beginning of the interaction between the local community and a drinking water project, this is perhaps the best time to encourage the local men to realise the importance of women in water supplies. The sending of the requests back to the communities with the above message would have led the local men to think twice about whether or not they should bypass women in their other follow up activities. The other advantage of involving women right from the beginning is that the women would be quite clear about the processes to be followed in getting the water project, the purpose of the project, and the requirements, formalities and responsibilities to be fulfilled by the local women and men, etc. This will not only help to raise women's confidence to actively participate in the project activities throughout and to organise themselves for putting request to other agencies for some other activities but also to avoid any confusions and conflicts with regard to whether the project can meet the needs and concerns of both women and men.

However, in the absence of this action, it became very common for the local people as well as the project staff to overlook the presence of women in various project activities in the later

stages, as discussed below. One main reason for this situation is that there is nothing mentioned about how gender sensitivity can be achieved at this stage in the project cycle management procedures of any institution. In a patriarchal society, such as that in Nepal, institutions involved in the drinking water sector need to introduce many activities and make a lot of efforts to help men understand the contribution that women can and do already make in this sector; this does not happen overnight. Hence, whenever institutions such as those studied here, find any opportunity like this they should try to take advantage.

Moreover, the focus of all three institutions while taking a decision whether to act upon the request was on the technical aspects with little or no attention given to the social or the gender dimensions. For example they gave no consideration to aspects such as what changes will the water project bring in the lives of men and women, will it change the gender division of labour since the water will be more easily accessible, will men and women have more income earning opportunities from this project etc. all of which have a direct relevance in changing the lives of people, especially women, and the effectiveness of the project.

Further, Fong et al. (1996) suggest that the information that will be crucial at this identification stage can be: men's and women's traditional roles in the sector, factors that promote or hinder women's and men's participation in the project, organisations that have been working with women in the project community, and the proportion of female-headed households in the community, so as to develop appropriate mechanisms to involve both women and men actively in the project activities. Because these factors were not considered by the selected projects they were not able to bring any major change in the strategic aspects of women's lives leading to the possibility of not meeting even their practical needs (this is discussed in more detail in the forthcoming chapter). Again, the reason, as mentioned above, is the policy-makers' lack of interest in addressing this aspect in the project guidelines, which again has to do with the gender issues discussed at the institutional level, earlier.

Selection of Implementing NGOs: Recently, the use of local NGOs in implementing development activities on behalf of a large national NGO, an INGO, donor or government department has become a common practice. The understanding is that since such NGOs are based locally they can understand the local people and their practices better than outsiders, and hence, can help to implement all stages of the project activities effectively. Fong et al.

(1996) note that NGOs can act as partners to mobilise local communities. Projects can often take advantage of the presence of existing NGOs that have expertise and experience in working with local women in the project area to help project staff in reaching local women. Accordingly, the involvement of NGOs is given high priority both in NEWAH and RWSSP Phase II, on the assumption that it will enable active community participation and help to sustain the project. The FRWSSSP is also thinking along these lines. Several selection criteria have been set, such as having relevant experience in the drinking water sector and community development, being locally based, being registered with the government, etc. but gender dimensions such as the gender balance in staffing, experience in gender work, the presence of people who have received gender training, etc., are not considered as relevant criteria.

As a result, the tendency of local NGOs to bypass women in project activities is high. This happened both in the Motipur project (where the NGO is staffed primarily by men) and Magaragadhi project (where the NGO is staffed exclusively by women), in the case of NEWAH, where the NGOs, played a dominant role in the selection of women to the PMC, in sharing financial matters with the women PMC members, in leading the discussion in meetings, etc. In turn, even in two years from the time the project was started women have not been empowered in a real sense, which is the focus of Chapter 7. Kabeer (1994a) writes that if an NGO is staffed primarily by men, there are likely to be limits in the extent to which it directly reaches poorer women within the community or is willing to address issues of gender power. Though Kabeer pointed out that an NGO will not be able to meet poorer women's needs and concerns if it is staffed primarily by men, the NGO of Magaragadhi staffed primarily by women, is also not able to rightly follow the engendering process in its activities. This indicates that women do not necessarily tend to be more gender sensitive than men if the agency where they work is not aware of gender issues in the development sector in general and in water supplies in particular. Apart from the lack of awareness on gender issues in water supplies, the other reasons reported by the women of the Magaragadhi NGO for not being able to mobilise other women in the community in various project activities were: i) they themselves can represent the other women in the community, ii) less attention paid by the project staff to mobilise other women in the project activities, iii) the lack of confidence on women's skills and ability due to their lack of prior experience of involvement in such

project works; the change of half of the women PMC members by men supports this statement.

Fong et al. (1996) also argue that it is not safe to assume that an NGO is by definition gender-sensitive. Care will be required in determining which NGOs can facilitate greater gender balance in programmes and projects, taking into account such information as their overall track record on gender. Macdonald (1994) also notes that the choice of partners is influenced by the extent to which the partner organisation is committed to changing the existing balance of power between women and men in favour of women. As an alternative the lead agencies can also provide gender training to the local NGOs before working with them. For example, highlighting the role of NGOs in the implementation of development projects, such as those in the drinking water sector in Nepal, a report prepared by Shtrii Shakti (1995) suggests that the concerned institutions should raise awareness of the people in the supporting NGOs on gender roles so that their projects can be more effective in meeting both women's and men's needs.

Hence, it is necessary that institutions focused in the drinking water sector include a gender dimension as one criterion while selecting NGOs, which is at present not specified in the project cycle management guidelines of any institution, so that their projects address gender inequalities while meeting practical needs. The gender dimension can include information such as the organisational background of the local NGOs, especially in terms of their staffing, number of men and women staff, organisational objectives, commitment towards improving the status of women, employment of people with exposure to gender issues or at least to women's issues, willingness to participate in women's development activities, etc.

Feasibility Study and Detailed Survey: This is one of the most important steps in the management of the project cycle, as the fate of the project is decided in this phase. The types of information collected at this stage, the people involved in collecting information, the time spent doing this survey, are all critical to make the projects effective. However, in all cases, more in RWSSP and FRWSSSP and less in NEWAH, these aspects were given inadequate attention. The project documents show a greater focus on the technical information than on social matters. The only social information emphasised in the documents is that concerning health and sanitation. There is no attempt to identify the target group - men and/or women,

the caste and class of the target group, the gender relations in the target community, women's role in activities related to the proposed project and their access to and control over relevant resources, nor to define strategies to integrate gender concerns, to identify people participating in and benefiting from the project etc. All these points are relevant in formulating strategies not only to successfully meet the practical needs of women and men but also to address women's strategic gender interests, all of which could have been studied through a gender analysis of the project communities.

May (1997) notes that institutions should have a policy framework, with a requirement to place gender analysis centrally in design and evaluation. Others also highlight the importance of gender analysis before implementing water supply activities (Fong et al. 1996). Gender analysis was, however, lacking in the work of all three institutions, as the field staff were contacting men for technical information and women for health and sanitation information. Among the three institutions, NEWAH is more concerned about involving women in the technical meetings and men in the social meetings. Nevertheless, even in NEWAH, the lack of gender analysis, especially concerning information about the access to and control over different resources in the household and the community, affected the projects in various ways. For example, in both Motipur and Magaragadhi villages, the all-women PMC collected the water tariff for some time but later they found it difficult and stopped collecting the contributions as local women did not have any extra income to meet this additional expense. This clearly affected the operation and maintenance of the tube-wells as the number of malfunctioning tube-wells in one NEWAH project is increasing. If a gender analysis had been done properly in the beginning, an appropriate mechanism could have been developed in consultation with both men and women concerning how the water tariff should be paid and what could be done in case of households that cannot really afford to pay the cost. The experience of Green and Baden (1994a) illustrates a similar issue; gender blindness caused by the lack of gender analysis at the project planning stage is difficult to rectify later, since this will carry through into project objectives, design, implementation, management, monitoring and evaluation.

Another important aspect in relation to the feasibility study and the detailed survey concerns the sex of the staff carrying out this preliminary work. The project cycle guidelines of all institutions mention that the feasibility study and the detailed survey will be carried out by a

team consisting of several persons. However, they do not mention whether the team should include women. Unfortunately, it is clear that when women are not mentioned men usually constitute such teams. For example, both in RWSSP and FRWSSSP, the people who were involved in doing the feasibility study and the detailed surveys were men. When only men are involved there is a danger that they may not follow processes, while holding meetings, which can increase women's participation. On the other hand, women surveyors can be more sensitive than men with regard to where, when and how such meetings are to be conducted. For example, the number of women present in various meetings in RWSSP and FRWSSSP was much lower than in NEWAH.

Because women have a number of responsibilities to fulfil, they cannot attend meetings which are held far from their homes and at times which are not convenient for them. Macdonald (1994) and van Wijk-Sijbesma (1985) also strongly support the presence of women in such survey teams to work with women from the target population. Alternatively, a gender specialist of either sex can also be included in such teams. As May (1997) argues, the presence of a gender specialist in any team conducting research and analysis can ensure more accurate knowledge of the different needs and interests of the population to be served. Further, even when meetings are held near to women's homes and at an appropriate time they may not still be able to express themselves if they are not allowed to sit in front and encouraged to express their views. Female project staff can be more sensitive in relation to these issues than male project staff, which can yield positive project results (Box 19).

Box 19: Results of Women's Presence in Survey Teams

In the case of NEWAH, because the survey team consisted of both men and women, the factors such as venue and timing of meetings and the seating arrangement, were all considered by the project staff, which led to the presence of relatively more women at meetings than in the case of RWSSP and FRWSSSP. These women were reported to be more vocal than women from the other two projects. As a result, in NEWAH projects, PMCs consisted of mainly women and more women were given the position of caretakers. Moreover, even illiterate local people, especially women, did not have any problem in participating in the information generation process; both in Motipur and Magaragadhi, more women participated in this process than men. On the other hand, in the case of the RWSSP, the WUC included only two women initially and, later, only one, and in the case of FRWSSSP, no women initially and only two women later, since no woman was involved in the survey team in either case. There were also no women selected initially in the position of caretakers in the RWSSP village and none were selected at all in the position of village maintenance workers (VMWs) in case of FRWSSSP. The process of empowering women (meeting women's strategic gender interests) was completely overlooked in both the RWSSP and FRWSSSP.

Since the active involvement of women in the planning stage of a project can help to ensure the fulfilment of both the practical needs of women as well as their strategic gender interests, it is essential that drinking water projects make every effort to include women in survey teams. A number of other studies also support the need for the presence of women in survey teams to increase local women's involvement in the planning stage (Hadjipateras, 1997; van Wijk-Sijbesma, 1985; WASH, 1990a and 1990b in Baden, 1993). Highlighting the need for women's presence in the survey team Moser (1993) also comments that in many societies, unless women speak, data will only reflect men's view of the world. Therefore, a precondition of gender diagnosis is the involvement of women researchers in data collection.

The length of time spent by the survey team in carrying out the feasibility study and the detailed survey in the project community is another important factor to determine whether the project can be gender sensitive in its implementation. The time spent by the project team was 9-13 days to cover the whole VDC, in case of NEWAH; 3-5 days in the case of RWSSP; and less than a week in each phase of feasibility, detailed survey and appraisal in case of FRWSSSP. Given the area covered by these agencies, the dispersed settlement pattern that requires more time to contact the households, and the social and cultural factors that constrain women from coming out easily from their homes, it can be said that the time spent is not adequate to explore gender issues. This will include investigation of people's willingness to pay for services, which is crucial to the effectiveness of water supplies.

During this survey period the project staff informed the communities of the criteria to be met by them in order to have water supplies in their communities, but no time was spent to analyse whether the people, especially women, were in a position to meet those criteria. In some cases this has been seen to make the local people's lives even more difficult than before (Box 20).

These discussions confirm the importance of the three points raised in the beginning of this section that the agencies, such as NEWAH, RWSSP and FRWSSSP, engaged in water supplies need to include gender analysis as an essential component in their feasibility study, the survey team should comprise both women and men to increase women's participation, and adequate time should be spent to explore all relevant issues before implementing projects.

Box 20: Implications of Inadequate Time Spent by the Survey Team

A number of households in NEWAH projects and in RWSSP had to borrow money from others to meet the project criterion of contributing cash, which led them to work very hard to pay the money back. Such a requirement was met by the municipality in case of the FRWSSSP, as not all people were in a position to contribute the required amount. Further, the lack of adequate time spent for social analysis also affected the operation and maintenance of tube-wells in NEWAH and RWSSP villages, as not all people, especially the female-headed households, in the community, were in a position to pay the same amount of water tariff as others. This also created conflicts among the user households which led to the collection of the water tariff being stopped in both NEWAH projects, and in the initial phase of the RWSSP leading to considerable uncertainty about the sustainability of benefits from the projects.

Selection of Technology and Location: All three institutions make use of pre-determined technologies, and of standardised tube-well/tap-stand and platform designs. The community, especially the women, who are the primary users of the tube-wells and tap-stands, have no inputs to offer at this stage as they are not consulted either about the appropriateness of the designs or about the building of platforms. One complaint that was made by the women of NEWAH projects and of the RWSSP is that they have to bend their bodies more to the front while pumping the tube-wells which gives discomfort in their waist and back. This is mainly because they found the handle of the pump a little long for their height. Putting emphasis on women's involvement in the selection of an appropriate technology, Fong et al. (1996) share that women from project areas in Bangladesh, Guinea-Bissau, Malawi and Tanzania have rejected some types of facilities, such as foot and hand pumps, because of the difficulties that certain users, such as children, pregnant women, and the old, had in operating them for such activities as bathing. As a result, users have resorted to unsafe but easier-to-use water sources. DFID (1998) also argues that because the technology is used by women they need to be involved in its selection e.g. height of taps and handles need to be suitable to women as they are the users.

Regarding the selection of locations of tube-wells and tap-stands also, the local women were not encouraged to contribute much in any of the selected projects. Among the three institutions, more women were involved in the case of NEWAH projects while deciding about the sites for tube-wells, but, the major role while deciding about the location was played by the women members of the local NGO in case of Magaragadhi and the men members of the local NGO in case of Motipur. In case of the selected projects of RWSSP and FRWSSSP, the decision about the siting of tube-wells and tap-stands was made mainly by the

WUC, composed mostly of men. The cluster-wise and area-wise meetings to solicit women's participation in this stage of project development, as described in the project cycle guidelines of these agencies, did not take place in their projects while making decisions about the siting of tube-wells and tap-stands.

As a result, the tube-wells and tap-stands in all cases are built facing the road side, giving limited scope for women to use them whenever they liked. Similarly, in NEWAH and RWSSP, the tube-wells are not located at the centre of the group of user households, requiring poor, voiceless women to walk further to fetch water. Such lack of involvement of women in the selection of location for tube-wells and tap-stands can eventually lead to the failure of the projects, as happened in Thailand, where women users did not pay attention on the maintenance of hand pumps. Likewise, in Tanzania, the hand pumps dried up as they were located in places which women did not suggest (Fong et al. 1996). A number of other examples of lack of women's involvement resulting in the ineffectiveness of projects have been presented in Chapter 2 and will be discussed with reference to this research in Chapter 7.

Formation of PMC/WUC: The importance of involving women in the PMC/WUC, set up for local project management, seems to have been understood more by NEWAH than by RWSSP and FRWSSSP. While NEWAH encourages its project staff as well as the community to include a significant number of women in the PMC, RWSSP and FRWSSSP advise that at least two women should be included in the WUC, which is, however, understood by the project staff and the local community as including only two women. Accordingly, the PMCs formed initially in NEWAH projects had only women as their members while in case of RWSSP there were two women initially, and only one afterwards, in a committee of 11 members and in FRWSSSP, there were no women initially and only two afterwards in a committee of 13 members. In both cases, there were some problems, however.

In NEWAH projects, because only women were included in the committees, they had difficulty in doing the paper work required by NEWAH, in organising the committee meetings, in keeping minutes of meetings, and in keeping records of financial matters due to their lack of education and confidence. This led them to be heavily dependent on men advisory members, who were not always very co-operative, as their interest was more in the status derived from being part of the committee than in being helpful. As a result, the WUC

of Magaragadhi was reconstituted after about a year to include men in the committee. The same problems were felt by the women members of the WUC in Motipur and thus, they are also on the verge of reforming their committee. Because of these disabilities of women, the project staff were also found to have been consulting more the men advisory members in both communities, and the male NGO co-ordinator in Motipur more than the women in the PMC. These factors were not supportive of increasing women's confidence.

In RWSSP and FRWSSSP also, where there are only one and two women respectively in the WUCs, the women members have not been able to contribute anything to the project. From the discussions with the men WUC members and the project staff it was understood that the women were included only as a token, since without showing their names on the paper they could not proceed with the project activities. Accordingly, some men just picked the names of women, from their heads, unlike in NEWAH projects where a mass meeting, including a large number of women and men, was held to select the WUC members. Such a biased attitude towards women's ability was even higher in FRWSSSP, where the women were invited to only two committee meetings in the last 12 months. No woman was included in the sub-committee/working committee formed, including six WUC members, all of whom are men. Though all these activities took place in the presence of the project staff they never advised the local men to include more women in those activities, as the project staff themselves do not have a proper gender orientation. This kind of poor representation of women seems to be a common feature in all FRWSSSP projects, as reported by the project staff (Box 21).

Because the lack of women's involvement can lead to many disadvantages to the users, especially women, as they are the main actors in water supplies, Hadjipateras (1997), Fong et al. (1996) and van Wijk-Sijbesma (1985), with their experiences of various countries, strongly support the presence of as many women and men as possible while forming the water committees. They also stress that such committees are better if their composition is mixed, with equal numbers of women and men since it can give women and men a good opportunity to understand properly each other's roles and functions in water supplies and in overall development of the community.

Box 21: Reasons for Poor Involvement of Women in Water Supplies

In Hile, the FRWSSSP staff reported that there are not usually more than two women in the WUCs of the FRWSSSP with which they have been involved. Their emphasis is mainly to meet the minimum requirement, which is to include two women in a WUC, and sometimes, even this is not met, as happened in this project in the beginning. If the senior officers note this point on the project paper forwarded by the project staff to them and are serious in including women in the WUC, they ask the latter to put the names of two women in the list of WUC members. Otherwise, the project gets through even without women, as everybody from top to the bottom in the hierarchy is happy with this arrangement. Two reasons were reported by the project staff for their less attention in involving women in project activities: i) It takes longer time to complete the project if they attempt to include more women in the process and they cannot do so because they are questioned by their seniors for not meeting the target they are given but not for involving less women in the project activities, and ii) They do not have any incentive to stay longer in the field site as they do not receive allowances for all the time they spend in the field. Thus, they have to rush to finish the project work and women suffer in this course. For example, the two women members do not have a clear idea about their roles and responsibilities as members of the WUC.

The project documents of all three institutions stress the need for appropriate ethnic and geographic representation in the PMC/WUC. However, these two factors were considered while selecting men but not women. Further, when women are selected to be in the PMC/WUC they tend to be from wealthier sections in the community. Moreover, the selection process is not as democratic as is described in project guidelines. In the case of the NEWAH projects, the local NGO played the key role in selecting women. In the case of the RWSSP the local leaders, who are, of course, men, decided which women should be in the WUC and in the case of the FRWSSSP the selection of both men and women was based on more political criteria. In no case were the project staff able to protect the interests of women in general and of poor vulnerable women in particular.

Regarding the involvement of women of all categories in terms of ethnicity, age, socio-economic status etc. the project staff of all agencies disclosed with frustration that it is not possible to look for all women's higher participation in the project activities if there is no change in the present project management practices. They said the time and the resources (both human and capital) that are presently allocated to complete the projects are not enough even without adopting a gender approach. If the projects are to be planned, designed and implemented, and managed following a gender approach, the present time and the resources need to be increased. Otherwise, it would not be fair to expect the project staff to address the issues of gender equity without a change in the thinking of the senior management about being flexible in the time and resources allocated for their projects. The senior management in

all agencies clearly understand the paradox in their present approach and the flexibility required in this approach if gender concerns are to be addressed by their work. However, because all their funding comes from donors they said they need to convince them about the advantages they can have with extra cost incurred for the same work. Again, in this case also, NEWAH has been one step ahead of the other two agencies since it has already decided to initiate five projects, one in each development region, following a gender and poverty approach. It has already got additional funding support from WaterAid, its donor for this piloting work.

Selection of Caretakers/VMWs: One important aspect in the project cycle management is the selection of people to take responsibility for operation and maintenance of the project. Because those involved in this phase receive technical skills, which can increase the chances of their saleability in the market, this aspect can be considered as a strategy related to meeting people's strategic interests. Accordingly, both NEWAH and the Phase II of RWSSP (not the Phase I which had all male caretakers in the beginning) are concerned to fulfil strategic gender interests as they are encouraging women, together with men, to take on the position of pump caretakers. The FRWSSSP is not, however, concerned about this aspect, as the tendency in all its projects, including the selected one, is to recruit men as Village Maintenance Workers (VMWs). The general impression of all male engineers and technicians is that women cannot play this role, as it demands more physical labour.

However, the local women, along with many others from other experiences, do not agree with this view as there are many examples where women have performed this kind of role effectively (van Wijk-Sijbesma, 1998; Fong et al 1996; Green and Baden, 1994a; Wakeman, 1995). Such a bias among the officials of FRWSSSP/DWSS can inhibit women's progress and development to a great extent, since the DWSS covers the entire country and runs hundreds of projects every year, and hence its decision about not recruiting women in the position of VMW makes a big difference in improving the status of a large group of women.

Training to NGO/PMC/WUC Members: Both NEWAH and Phase II of the RWSSP have provision for providing training on community development issues and PRA techniques to their partner local NGOs. However, training on gender issues is not yet on their agenda. No specific gender training is planned and gender as an issue is not included as a component of

other training packages. The lack of gender training for the NGOs led them to play key roles in the formation of PMCs without men and to make inappropriate decisions about various project activities. As a result, almost all the PMC members in both NEWAH projects were completely dependent on the NGO staff even for a minor activity such as calling meetings. In such a situation it is meaningless to think that these women can concern themselves with meeting their strategic gender interests. Hence, drawing on the experience of Oxfam, May (1997) argues that gender training should be provided to NGOs to change their attitudes and practices and not just to add to their skills.

As in the case of NGOs, the training given to PMC/WUC members and the other people in the communities, by all three institutions, does not include gender, either as a separate package or as a component of other training packages. In a male-dominated society like that of Nepal, gender training to the people in the community is important to help men and women to understand each other's role and contribution in the water sector. A good gender training can greatly help the project staff to help the local men and women to appreciate each other's roles and to begin to change the existing gender relations in the water sector. It also helps to overcome the cultural and social barriers that may prevent local women from participating in water projects. Such training should be targeted mainly to local men so that they can fully appreciate what their women can do in a water project and what it means to the whole community. For example, the local men, in both the communities in the case of NEWAH projects, were reluctant to pay the water tariff, a key factor for sustaining the water schemes, as they thought it is a women's project. If they had been provided some orientation on gender issues they would have started to look at the project from a different perspective. As experienced in other areas too, training on gender orientation can help to motivate local men to extend their support to the women (PROWESS/UNDP, 1988; Baden, 1993; IRC, 1991).

On the other hand, the absence of such training leads to the exclusion of women from many project activities, as happened in all selected projects. Hence, it is imperative that the institutions like NEWAH, RWSSP and FRWSSSP involved in the water sector provide gender orientation to the NGO personnel as well as to the PMC/WUC members plus the local men and women so that they can understand and think of meeting not only their practical gender needs but also their strategic gender interests for a better future.

Furthermore, it is also important that whenever a training, irrespective of whether it is related to gender or not, is provided to any of the project staff or the community people, the materials given in the training must be gender neutral otherwise they will further reinforce the traditional gender division of labour, giving a wrong impression to the trainees. For example, the handbook on operation and maintenance of water facilities given by NEWAH and the FRWSSSP to the caretakers is gender biased, showing pictures of male caretakers. Equally important is to enhance women's confidence to come out of home to attend training. This may require pre-training and more training, and provision of an appropriate budget in the project documents (May, 1997). This also demands a substantial amount of time from the project staff to sit together with the male members of the community to carry out gender sensitisation activities so that they recognise the benefits of women's participation in water supplies, and allow their wives to come out of home to attend training and meetings and all other project activities. Informal discussions, which can also be called informal training, can be conducted by inviting both women and men to discuss issues such as who pays the water tariff and why it has to be a responsibility of only one of them while it is the need of all in the family.

Signing of Agreements: In cases of all three institutions, the contract agreements focus on the roles and responsibilities of the concerned parties in fulfilling their roles in the project activities, which are all purely technical. There is nothing mentioned in the contract agreements about the qualitative aspects such as improvement in the quality of life of people, especially women as they are hit hardest by the lack of water supplies. The contract agreements do not bind any parties to pay special attention on the strategic gender interests of women such as improvement in their status, in their bargaining power, in their life through meeting their genuine needs and concerns etc. which are essential not only for the sustenance of the practical benefits of the projects but also for overall societal development. Study of the contract agreements indicates that project activities in all cases could have been completed without considering gender aspects at all. The lack of reflection of gender needs and concerns in the contract agreements is a further indication of the lack of concern of all three institutions in making their activities gender sensitive.

6.2.2 Construction Phase

Programmes in the implementation phase are most likely to be gender sensitive when there has been adequate gender planning, when project workers have a gender perspective, and when gender issues are discussed among project participants (Hamerschlag and Reerink, 1998). A review of the project guidelines, as presented in Appendix 6, and activities followed, as presented in Appendix 7, of all three agencies shows that unlike in the pre-construction stage, which involves a lot of background work to initiate the project work, the activities that are proposed at this stage are limited to the management of financial and construction materials, involvement of various parties to complete the implementation work and the supervision of the work progress. The review also shows that the activities proposed in this stage are quite general and do not address any gender issues. For example, documents do not have any provision to alter the design if women feel that the final output of the construction work will not address their needs. This situation is likely to occur when women are not involved in the planning and design of water supplies, as experienced in all selected projects.

Theoretically, the management and the supervision of the construction is the responsibility of the local WUC. Since the WUC is supposed to include both men and women, it implies that both these groups get involved in the implementation process. However, in reality, it does not happen like this and the management of the construction stage, which includes both finance and materials, is mostly under the control of men. For example, in NEWAH projects, it is the NGO Co-ordinator and the NEWAH project staff both of whom are men (except in Magaragadhi where the NGO Co-ordinator is a woman and thus consults with the male advisory board members more), who handle the project money, construction materials that come directly from NEWAH, and the payment of skilled workers. In both Motipur and Magaragadhi, the women PMC members reported that they are not involved much in financial matters as they do not understand the paper work and hence, whenever they (especially the chairpersons) are asked by these persons to give their signatories on any paper they do so.

The same is true in RWSSP where the management of finance and of construction materials was all done by the WUC male members and the project staff, a man, of course; the single woman in the WUC did not have much to contribute in this activity. One improvement that

has taken place in Phase II of the RWSSP is that it now transfers the project money to the account of the WUC, which then uses the money to purchase construction materials, upon consultation with the VDC and the RWSSP project staff. However, because the numbers of women in the WUCs in Phase II are also not more than two in many projects, as reported by the DDC officials, the women do not have much involvement in this new mechanism, though it shows the decentralisation of power from RWSSP to the local WUCs.

In FRWSSSP also, since all this activity is the responsibility of the sub-committee of six persons, which does not include any woman, upon consultation with the project staff, who is also a man, women do not know about the financial matters and the construction materials that have been sent to their project. As a result, the supervision of the construction work is also done mostly by male WUC members in RWSSP and FRWSSSP, and the NGO Co-ordinators in NEWAH projects.

In all projects, the construction work generally began after the monsoon is over, which is September/October. The local women reported that this is the time when they are busy in harvesting crops. As a result, their life becomes miserable during this period, partly due to their own field work, and also due to the necessity of providing labour to the project work. The implication of this is more serious for women from female-headed households, who have to do wage labour for their survival, since this is the time they find more paid work for themselves. However, the labour contribution to the project work deprives them from such earning which is so essential for their survival and for that of their children. This problem is reported more in FRWSSSP, where the local people, both women and men, have to contribute a significant amount of their labour due to the nature of the gravity flow schemes that demand a lot of manual work.

The traditional gender division of labour has been further reinforced in all projects while initiating the construction work, since the project staff had the feeling that women are technically incompetent. Hence, all the skilled labourers hired for both the water supply and latrine construction by the projects were men. Though it is a bit expensive to involve women on the technical aspects, as they require further training, the findings of studies carried out by New ERA (1991) and Fong et al. (1996) report that their involvement will be cost-effective in the long run. Hence the projects should consider whether they are concerned with improving

women's status by giving them new opportunities to increase their skill, income, decision-making power and the right to decide on activities that can ensure long term benefits from the projects. For example, the women of all four projects complained that, though they resisted the idea of installing tube-wells along the road side, during construction, as they cannot use them comfortably for various purposes, the project staff and the male WUC members did not pay attention to this matter, saying that they cannot contradict the design. The discriminating attitude of project staff towards women is even more evident in the FRWSSSP than in NEWAH or RWSSP where the male labourers were preferred over females and more wages were paid to the men.

All these discussions show that a thorough orientation on gender issues to the project staff is a major gender issue in water supplies since its absence can cause projects to overlook a number of practical as well as strategic issues related to women and men by the project staff during the construction stage.

6.2.3 Post-Construction Phase

The major post-construction activity is the effective operation and maintenance of the completed water supplies, and proper supervision, monitoring and evaluation of that activity. This stage is as important as any of the other stages in a project cycle as it indicates the improvements in people's lives as envisaged by the project. If it is a gender-sensitive project, its importance is even higher since this can tell the project managers and the policy-makers on time whether their goal of improving the quality of women's lives, both practically and strategically, is being fulfilled. As Fong et al. (1996) note, even when projects are well designed with respect to gender, it is not safe to assume that they will necessarily have a positive gender impact. Experience shows that gender perspectives may fade away if the progress is not regularly tracked. The task manager has a crucial role in keeping alive the issue of gender and correcting deficiencies through timely supervision and monitoring of the progress.

In all projects, the task of operation and maintenance is the responsibility of concerned caretakers and VMWs. However, the monitoring of operation and maintenance, which is the responsibility of the local PMC/WUC, and evaluation, which should be done by the support agencies such as NEWAH, RWSSP and FRWSSSP, was found to be weak in all cases. In

fact, there is no further regular contact between these agencies and the partner communities once the project has been handed over, or a letter of ownership has been given to the concerned PMC/WUC. Among the three agencies, NEWAH is the only one, which has developed a system, which requires NEWAH staff to visit the recipient community for two-years at an interval of six months, and to hand over the responsibility of the management of the system to the local community. However, even in this case, NEWAH staff have not visited Motipur and Magaragadhi projects regularly nor have they formally handed over the management responsibility to the local PMCs at the end of the field work. On the other hand, NEWAH expects a report on the status of the project on a quarterly basis from the local PMCs during this period. This should be done by filling out a monitoring form developed by NEWAH. There are, however, two problems with this form. First, the form is not simple so that it can be filled up easily by women PMC members and hence this has again made them dependent on their NGOs. Second, the form is very general and the information required is not gender-specific.

In this regard, Fong et al. (1996) recommend that a gender-specific monitoring and evaluation should address three issues such as, effective utilisation, sustainability and replicability of systems, and should seek information by gender on access, use and acceptability of new facilities, increase in coverage, attitudes of users about the efficiency of the system, repair skills, willingness to pay water tariffs and their collection, representation and decision-making in committee activities. Also to be explored are emergence of women community leaders, women's higher access to training and income, increase in women's status and bargaining power, and women's confidence in initiating other development activities. Many of these issues, that are related to measuring women's empowerment, are also recommended by Hamerschlag and Reerink (1998). At present, the form designed by NEWAH does not answer any of such gender concerns, and hence NEWAH is not in a position to say what impact its projects have made in improving the lives of women and empowering them in the project communities.

The situation in RWSSP is worse than NEWAH since the former has not developed any monitoring tool and there is no further contact between the RWSSP and the local WUC regarding what these two parties expect from each other after handing over and taking over of the project. Nonetheless, the WUC is meeting every month and collecting water tariffs,

though only recently, for the operation and maintenance of the tube-wells. In the case of FRWSSSP, the project studied has just been completed, with provision of two VMWs for operation and maintenance of the tap-stands. No monitoring and evaluation forms have yet been introduced to the WUC. Though the project has designed a monitoring form this is mainly to know the progress during the implementation phase and not for the post-construction phase; a review of this form shows that it is not gender-specific. Though one of the activities proposed in the project guidelines is regular interaction between the WUC and the DWSO the project staff are not yet clear how this is to be accomplished.

Up to the end of this research (mid-1999), though each tube-well is provided with a caretaker, the number of malfunctioning tube-wells has reached 9 in NEWAH (Magaragadhi project) and 8 in RWSSP. The reasons for these failures and their impact on the local people, especially women, are discussed in the next chapter.

The above discussions show that the outside agencies are often weak in carrying out a proper and timely monitoring and evaluation of their project activities. Therefore, there is perhaps a need for a system which can be initiated at the local level itself. This system, which is known as participatory monitoring and evaluation, is normally less costly and can give timely and accurate results as even the people with basic education can apply it. Fong et al. (1996) and UNDP (1998) have proposed a number of steps with regard to the use of such gender-based participatory monitoring and evaluation systems, which can be useful for institutions such as NEWAH, RWSSP and FRWSSSP, that want to reduce their local partners' over reliance on them. Because these authors have not tested the proposed steps themselves it is difficult to comment how effectively they work. Nevertheless, there are a number of experiences of participatory monitoring and evaluation adopted in other sectors such as forestry, income generation programmes and agriculture (ICIMOD and FAO, 1998; IIED, 1998), the experiences of which seem positive. Those experiences can perhaps be drawn upon to initiate a participatory monitoring and evaluation process in the agencies such as NEWAH, RWSSP and FRWSSSP so that the local community itself can take the corrective measures on time.

From the discussions on 'project cycle management', it can be said that the project implementation procedures in all selected agencies are not gender focused though the situation is slightly better in NEWAH than others. From the beginning, the project staff have

neither made attempts to include women nor to consider gender issues in various important phases of the project. The gender insensitive institutional policies, that include institutional objectives and strategies, organisational structure, policy formulating mechanisms, organisational culture, gender training, human and capital resources, etc., as discussed in the beginning of this chapter, are the major reasons for the failure of the project staff to be gender aware in their work in the selected communities in all cases. Again the reasons for such gender insensitive policies and practices, as discussed earlier, are men's biased attitude against women, lack of proper understanding of gender issues in the water sector, and lack of understanding of how the gender unaware work can have adverse effects on women and men, etc.

6.3 Summary

The discussions presented in this chapter show that the institutional level findings are similar to those at the national policy level. In all agencies, the chance of women contributing to the formulation of institutional policies is low since their representation in the policy-making body, as in the case of national level policy-making bodies, is nil or negligible. The junior staff at NEWAH have relatively higher possibility of feeding back to the management due to frequent meetings between these two than at RWSSP and FRWSSSP, but again, even at NEWAH, the process is more top-down rather than bottom-up, since the purpose of these meetings is mainly to provide information on decisions taken by the management. This lack of women's involvement in policy-making bodies has led to the formulation of objectives and strategies that do not address any of women's strategic gender interests in any agency. The presence of more men in the policy-making bodies has also led to gender-insensitive recruitment practices resulting in a striking imbalance in the ratio of women to men. The management, more so in RWSSP and less so in NEWAH, has not shown much concern as regards to providing its staff with necessary facilities while at work. This is particularly the case for women and shows their poor understanding or biased attitude towards women's genuine needs and concerns.

Though the management in all three agencies has shown verbal understanding in providing flexibility to women in their office hours so that the latter could fulfil their various roles, experiences have shown that this kind of facility is being used more by senior women and

those who are vocal and come from better-off families. The women working at the lower level and from poor economic backgrounds are not receiving these facilities. Further, the other danger of such verbal understanding is that it may not exist when there is a change in the supervisory position and it can also create embarrassing situations between the male boss and subordinate women, as happened in NEWAH and FRWSSSP. Hence, the facilities to be provided need to be defined in policy and can be stopped when there is an equal sharing of work between women and men except in some biologically-determined task such as breast-feeding. The lack of all this at present implies male policy-makers' hidden attitude of discouraging women from taking jobs.

Due to the gender-insensitive recruitment practices, working conditions and facilities, the agencies have failed to retain as well as to increase the number of women staff as compared to the number of men staff. The organisational structure of all three institutions shows gender imbalance though it is less so in NEWAH than in others. The number of women at the senior level is also very small in all institutions, more seriously in RWSSP and FRWSSSP than in NEWAH. None of the agencies, including NEWAH, has reflected any commitment to address this issue of small numbers of women staff in their policy documents. Further, even when women are hired they are mostly placed in the health and sanitation sectors or administration in all agencies. NEWAH is making some attempts to change this, but because this attempt is not backed up by policy, it is at a nominal scale and thus has not given any significant, positive result yet.

Nonetheless, in NEWAH, because its objectives are more quality oriented than others (though not gender oriented) and because there are more women staff, more interactions between the junior staff and the management, more understanding in terms of gender issues, the organisational culture is relatively more positive in NEWAH than in RWSSP and FRWSSSP. Until now, none of the agencies has appreciated the importance of water supplies as an entry point for women's empowerment though there are a few individuals in all agencies who are positive about this. This has hindered female staff in all agencies from feeling that they are as powerful as the male staff. None of the agencies has succeeded in breaking the traditional gender division of labour between women and men (though NEWAH has initiated this but at a very nominal scale). These points indicate that all these agencies have to go a long way towards engendering their activities.

Though training on gender issues could have helped in solving many of such problems, only a few staff had received such training in NEWAH while a sizeable number of staff have attended gender workshops and gender training recently. In the cases of RWSSP and FRWSSSP no staff have received formal training on gender issues. Unfortunately, none of the agencies has any plan to provide training on gender to all its staff, which again indicates the management's double standard with regard to what they are preaching and what they are committing. Similarly, with regard to resource commitments, none of the agencies has made any provision for GAD activities, though NEWAH, with some pressure from its major donor, WaterAid, self-realisation of the staff and the effects of this research, has recently spent some money in some GAD workshop and training. However, the fact that NEWAH has not prepared any long term plans about providing training and orientations on gender issues to its staff, despite having access to funds from various sources for these activities, shows its lack of seriousness about the importance of addressing gender issues in water supplies. Likewise, none of the institutions, including NEWAH, has any person responsible for GAD activities, though, the people, known as change agents, who are positive about GAD are more obvious in NEWAH, where even the director is in favour of supporting gender concerns when raised by other staff, especially women, than in the RWSSP and FRWSSSP.

Although a superficial understanding of all these institutional issues may lead one to say that they are mutually exclusive and hence, can be treated separately, a deeper understanding compels one to accept that these issues are inter-related in a vicious circle - 'one' leads to the 'other', but without the 'other', the 'one' will not happen. Nonetheless, some of the issues, as starters, that can help to bring gender on to the agenda are the presence of more women in the institution leading to gender specific policy, training to all, especially the senior staff, on gender issues, and provision of human and capital resources.

Because of all the factors mentioned above, the field level practices are more gender sensitive in NEWAH projects than in RWSSP and FRWSSSP though the latter have developed a step-wise approach for project management which appears systematic and gender aware. Since the project team included women in NEWAH projects they were able to involve more women in their activities than the RWSSP and FRWSSSP though the NGO staff and male members of the community played key roles in making final decisions about various matters. All projects failed to inject the idea of involving women from the beginning of the project into the mind

of local men and NGOs, which are selected regardless of their exposure to gender aspects, which led to bypassing women in various stages of the projects. This also resulted in the lack of confidence among women in the committees about their rights, roles and responsibilities. No projects provided training, either to NGO staff or to the community people, on gender issues. As a result, wherever women were included in the PMC or WUC (mainly in RWSSP and FRWSSSP), it was only as a tokenism since they could neither actively participate in making major decisions nor was their presence (one in RWSSP and two in FRWSSSP) of any relevance. In FRWSSSP, the women even did not know for months that they were selected to be in the WUC.

In all projects, the focus while collecting information for the preliminary project survey is more on technical aspects rather than on social and gender aspects; the time allowed for preparing women and men PMC or WUC members is not adequate. There is no gender analysis carried out by any project to find out the genuine needs, concerns, gender roles etc. of women and men in the project communities. One major gender bias that has been clearly observed in all cases is that while more men are hired in paid positions, such as caretakers and VMWs in gravity flow schemes, masons, and other skill oriented jobs, more women are involved in unpaid positions such as caretakers for tube-wells, health volunteers, community motivators, etc. Similarly, the other bias of the projects of all agencies is that mostly men are provided training on technical aspects such as latrine construction, masonry, etc., that can provide income, while more women are provided training on health and sanitation where they do not receive any income. In the FRWSSSP, the other gender bias from the project staff was seen in their attitude of paying more wages to male labourers than to women labourers.

From the analysis of all institutional policies and practices of the selected agencies discussed so far in this chapter, it can be concluded that the drinking water sector at the institutional level is not sensitive to various gender issues. The reasons for this gender weak institutional environment can be summarised as follows.

All the gender biases in the field level activities, seen more so in RWSSP and FRWSSSP villages and less so in NEWAH villages, are due to the gender insensitive institutional policies and practices that include, policy formulating mechanisms, institutional objectives and strategies, personnel policies, organisational structure, organisational culture and

management style, provision of training, provision of human and financial resources, and role of change agents. These factors, which have shaped the minds, attitudes and behaviours of the women and men working in the selected agencies, led them to be insensitive while developing project management guidelines. As a result, when these staff go to implement a water project in a community, all of their activities are guided by how they related and interacted with these variables in the agency. If they had been trained to relate and interact with these variables in a gender sensitive way, their attitudes and behaviours out in the project communities could be gender focused. In contrast, it is obvious that they ignored, knowingly or unknowingly, their attention on gender dimensions in the project activities.

One example is that if the women in the office were given due respect, involved in decision-making, included in the policy-making bodies, provided various facilities that they deserved, and so forth, the project staff would have felt giving the same treatment to women in the project communities and vice versa. Similarly, another example is that if the project staff find that the agency has made adequate budgetary provision to compensate their time spent to be truly gender sensitive in their field activities, they will be motivated to be serious in addressing gender issues. In absence of this situation, they will pay only lip-service to this sector, which will have no effect in improving women's lives strategically. Because it demands more time and commitment to work with women due to their low level of literacy, lack of exposure and other cultural and social factors, the field staff need to spend more time than when they were implementing projects following the traditional approach. Agencies, such as NEWAH, RWSSP and FRWSSSP, need to understand that the return from such investment in the long run will be higher as the projects will last for a longer period when one-half of the population, neglected in the past, participate actively in the development process. The question that arises then is why are the institutional policies and practices gender blind. A number of reasons have been found for this insensitivity, as discussed earlier in this chapter, which can be summarised as follows.

i) Men in a patriarchal society like that of Nepal see women's place in the home and not in outside home activities. The notion that women should be working at home is even more pronounced in the water sector since the men view this sector as a technical one where women have nothing to contribute. Accordingly, no attempts have been made by the selected agencies to create an environment conducive to women. Even in agencies where some

attempts on GAD have been made, not all the men staff have been able to express their commitment effectively because of the mixed feelings of the staff about women's roles and contribution in the water sector.

ii) There is a general bias among men against women that the former should be able to control the latter, which is possible only if the latter are restricted from participating in the outside home activities and from increasing their bargaining power with control over income. The men held the view that in order to maintain their domination and exploitation of women, and their control over the system as a whole, they have to preserve the patriarchal structure which always presents reasons - social, cultural, political, legal - to prevent women from being at the same level as men. This is the reason why even when women were employed, it is mostly either in the voluntary positions or in low paying and low profile jobs.

iii) Men in Nepalese societies are so deeply rooted with patriarchal culture that it will be very difficult for them to see a connection between a GAD approach and improvements in human well-being, without a proper orientation or training on gender aspects, which is not happening at present in any selected agency, though some signs of improvement have been seen in NEWAH.

iv) The general bias that men have against women is further compounded by the fact that the men working at the senior level in the selected agencies and those at the community level do not have a proper understanding of the gender issues in development in general and in water supplies in particular. The lack of proper understanding among the policy-makers and the project staff of the genuine needs and concerns of women and men at various levels has made the former a little sceptical with regard to what gender issues they should be addressing in their agencies as well as in their water projects, and how they should be doing this.

v) The lack of donors' pressure (in this case WaterAid, FINNIDA and the ADB) and their lack of commitment in terms of being specific on women's strategic gender interests or women's empowerment in their own policy documents has influenced their partners (in this case NEWAH, RWSSP and FRWSSSP respectively) to be gender unaware in their institutional policies and practices since the experiences show that the latter are developed based on the former.

vi) The lack of clarity between the donors and their partner agencies with regard to whether it is the number of projects and the number of beneficiaries or the quality of those projects that they are more concerned with, is also affecting the level of seriousness and commitment of the agency staff on gender aspects. The trade-off is that the concern with the former can bypass women's meaningful involvement since it takes more time to work with women due to their low levels of literacy, lack of exposure to similar work, and lack of confidence, and thus can increase the chances of unsustainability of project benefits; while the concern with the latter can ensure sustainability of project benefits but with smaller coverage when compared with the same amount of resources invested in the former mode. Since none of NEWAH, RWSSP and FRWSSSP are quite clear about this interconnection and the focus of their donors is also unclear, there is no consistency in their level of inputs on GAD works.

From the information analysed in this chapter, using the institutional framework suggested in Chapter 3, a number of lessons, related to the relevance of this suggested framework for its future use to study the impact in the water sector, have been learned, which are as follows.

The institutional framework that consists of eight useful indicators, discussed in this chapter, has given a very good understanding of the gender issues at the institutional level of the selected agencies. It can thus be said that these indicators appear to be useful and relevant for consideration in the future when carrying out a similar type of gender analysis at the institutional level. Nevertheless, one critical issue that has come out from the analysis of those indicators, such as policy formulating mechanisms, organisational structure, and organisational culture, is related to the degree of 'power' that women and men staff have been able to exercise in the agency and the reasons why they have different degrees of power. Because this power comes from various sources, such as the nature of job (technical or social) of women and men staff, positions held by them in the organisational hierarchy, their levels of income, presence of peer groups to support them, etc., and is a strong determinant of respect that one receives from the others, this appears to be the crux of women's and men's empowerment at the institutional level. Hence, the researcher feels that instead of addressing the issue of power under several other indicators, where it might get mixed up with other issues and thus might lose its essence, as seems to have happened in this research, this issue of power should be dealt with as a separate indicator while carrying out a gender analysis of any agency.

By the end of the research, the researcher has also felt, through the experiences of this research, interactions with various individuals and agencies working in development, including that of the water sector, and learning accumulated from his various other past and present work, that one other important indicator that shapes the gender sensitivity in an agency is its relationship with various national and international agencies. Recognising the importance of this issue, it was dealt with in this chapter, mainly under two indicators, policy formulating mechanisms, and objectives and strategies. However, given the fact that more than two-thirds of the development budget in Nepal comes through external donors, and all NGOs and INGOs need to work under the government policy in any sector including that of water, it appears that the national government agencies and international donors play a crucial role in shaping any agency working together with them. The donors' influence is even more evident in the water sector where all agencies, including the governmental ones, rely heavily on external funding. As a result, the emphasis put by these national and international agencies on gender aspects and their relationships with the implementing organisations, such as the ones selected in this research, can determine the priority that the latter gives to gender aspects in their own policies and practices. The finding of this research corroborates this statement. Hence, it appears that agencies' external relationships should be treated as a separate indicator at the institutional level while examining gender issues at the agency level.

This all means that the institutional framework suggested in this research should now be expanded for its future use as follows: policy formulating mechanisms, objectives and strategies, personnel policies, organisational structure, organisational culture and management style, provision of gender training, provision of human and capital resources, role of change agents, sharing of power between women and men staff, and relationships with external agencies.

The issues of sustainability of project benefits and of the development of societies with greater gender equality between women and men, due to women's strategic involvement in water supplies will be the main focus of the next chapter, which analyses the impact of the gender insensitive international, national and institutional policies and practices in meeting women's strategic gender interests using the community level framework suggested in Chapter 3.

7. ASSESSMENT OF PROJECT OUTCOMES IN MEETING WOMEN'S STRATEGIC GENDER INTERESTS

This chapter attempts to analyse the process and the outcomes of the selected drinking water projects on the basis of the five indicators of women's strategic gender interests as defined in Chapter 3, with an assumption that if the projects do not meet these interests of community women, the projects will not only fail to contribute to better development through greater gender equality between women and men but also will fail to sustain the practical benefits of the projects to the people in the community. This assumption is based on the findings of the review of literature discussed earlier in Chapters 1, 2 and 3 and the outcomes of this research as discussed in Chapters 5, 6 and 7 (this chapter). The women's strategic gender interests presented in Chapter 3 are - women's participation in project activities, changes in the traditional gender division of labour, women's access to and control over resources, equity in sharing of benefits, and changes in women's status and new development initiatives. It is hoped that this analysis will indicate the relevance of these strategic gender interests in the drinking water projects and highlight some key issues that might have to be considered by agencies while planning, designing and implementing their water projects from a gender perspective.

The findings of this research, in terms of the selected projects' effectiveness in meeting those strategic gender interests, have been published in a recent issue of Gender and Development, published by Oxfam (Regmi and Fawcett, 1999). The main argument in this article is that it is essential for water planners to realise the importance of considering those strategic gender interests of women so as to develop ways to incorporate them into their plans, and to enable gender-sensitive impact assessment and evaluation work to pinpoint strategic gender interests which have gone unaddressed in projects where these issues have not been considered.

The following sections present the analyses of those strategic gender interests in relation to both the process and the outcomes of the selected projects. While the analysis concerning the need for considering women's strategic gender interests in order to ensure the sustainability of practical benefits is based on the findings set-out in the earlier chapters, the information presented in Appendix 7 and the literature, the analysis concerning the need to consider women's strategic gender interests with the aim of developing a society with greater gender

equality between women and men is mainly based on the findings from the literature on gender and development (GAD) since addressing this issue from the primary information was not possible due to time and budgetary constraints.

7.1 Women's Participation in Project Activities

This research collected information on women's, together with men's, involvement in the planning, design, implementation, monitoring and evaluation stages of the selected drinking water projects. The assumption is that this can contribute to sustainability of project benefits as well as fostering overall societal development, since women, constituting half the population, play a crucial role in development, including that of drinking water. However, the information presented in Chapter 6 and Appendix 7 shows that women's participation in the selected projects has been limited to inviting some women to attend meetings, to be nominal members of water committees, and, at the most, to take the tedious job of treasurer, in which she ends up spending a lot of time struggling to collect money. The women from all project communities have been involved mainly to provide voluntary labour for various tasks during the construction and operation and maintenance stages but they are not involved in the essential planning and designing activities such as deciding the technology to be used, selecting which water source to exploit, choosing the location of hand pumps or tap-stands, and recruiting people for paid jobs. They are also not invited to attend skill-oriented technical training, to perform skilled work, nor to be in paid positions, all of which offer women decision-making power and income earning opportunities, two strong indicators of women's empowerment. The details of such participation of women of the research communities in project activities are as follows.

The community women's knowledge of the selected drinking water project is very limited in all cases. Most of them got to know about the project only at the time of providing labour for construction work. There was no women's involvement at the time of conceptualising and negotiating the projects with the implementing agencies. Even the women who are in the PMC or WUC got to know about the project only at the time of formation of the committee. Among the community women in general and the women PMC or WUC members in particular, the women from the higher ethnic groups, such as Brahmins and Chhetries have relatively better understanding of the projects than women from the other ethnic groups, such

as Chamars, Mallah, Blacksmiths, Tailors and Cobblers. There are a number of reasons for this which are as follows.

First, the committees are headed mainly by Brahmin and Chhetry women or men and thus they, due to their positions, have a relatively clearer idea of the project activities than women or men from other ethnic groups. For example, the PMCs of Motipur and Magaragadhi in case of NEWAH and Gajedi in case of RWSSP are chaired by a Brahmin woman, a Chhetry woman and a Brahmin man respectively, and they had relatively better understanding of the project than others. Second, the NGOs in case of NEWAH projects in Motipur and Magaragadhi, which played a key role in the selection of women members in the PMC, are headed by higher ethnic groups and thus they recommended their own women relatives to be in the PMCs. In case of the WUCs of Gajedi (RWSSP) and Hile (FRWSSSP) also, the women selected in the WUCs are the relatives of other influential male WUC members (or well known to them through their husbands or fathers). As a result, these women have more interactions with their men relatives either in the committees or in their families which gives them more opportunities to know about the project than the other women who do not have such contacts. Third, even in the positions of FHVs, motivators and caretakers of tap-stands or tube-wells, a majority are from the ethnic groups other than those who are from minority groups, the marginalised and the economically weak. This finding, concerning women's limited access to information about the project in general and of the particularly poor communication with women of minority groups, is also reported by Mustanoja (1998) in her study carried out in four RWSSP districts.

Similarly, regarding the community women's participation in project planning meetings, this was higher only in NEWAH projects, Magaragadhi project (which was due to the involvement of a women-led NGO and more women's presence in the PMC) followed by Motipur project (due to a women-only PMC), but poor in RWSSP and FRWSSSP villages. As presented in detail in Appendix 7 and discussed in Chapter 6, though the presence of woman in the survey teams of NEWAH helped to increase the number of women in the planning meetings, the timing of such meetings vis-a-vis the volume of work to be done at home and the lack of another person to share this work constrained many other women from coming to attend these meetings. This reason, followed by the lack of presence of a woman in

the survey team, is the main reason for women's poor participation in planning meetings in RWSSP and FRWSSSP villages.

Likewise, in all projects, the participation of women PMC/WUC members in committee activities has not been so encouraging. In NEWAH projects, the women PMC members relied on NGO staff (all males in Motipur and all females in Magaragadhi) and the male advisory board members for almost all committee activities including calling meetings, filling up forms, selecting technicians for construction work, making other major decisions, etc. Though in principle it is the women PMC members who had to take all the decisions related to the projects, the power of making decisions lay with NGO Co-ordinators and the male advisory board members. In RWSSP and FRWSSSP villages also, the women members' participation in WUC activities was very discouraging. The only woman member in the WUC of the RWSSP attended WUC meetings regularly but she was easily dominated by other males during the discussion. There is provision for two women advisors in the WUC but they seldom attended meetings. The situation is even worse in FRWSSSP as can be found from the information presented in Box 22.

Box 22: Women's Involvement: A Tokenism

In Hile village (FRWSSSP), the two women in the WUC said that they did not know for months that they had been selected to the committee. Because the male members of the committee were instructed by the project officials that there should be two women in the committee, so as to activate the process of implementing the water project they put forward their names as a token. As a result, these women are never invited to participate in any meetings nor are they included in the sub-committee formed to monitor the project progress. For this reason, they said there was no question of them being able to do anything that can improve the lives of women in the community.

The reasons for limited participation of the women of PMC or WUC in all cases are: lack of confidence due to lack of experience of paper work in the past, lack of education, lack of positive attitude from males regarding women's ability to make decisions, the need to rush to go home to do the household chores, and small number of women in the committees (in case of RWSSP and FRWSSSP).

In all cases, women's participation in making major decisions, such as the selection of locations for tap-stands and tube-wells; the choice of PMC/WUC members, caretakers, and persons to attend training; the design of the platforms; fixing of water tariff; etc. was extremely poor. Though women were present (more in NEWAH projects and less in RWSSP

and FRWSSSP) while decisions were made about these activities, the decisions were ultimately made by NGO staff and the local men. There was no realisation either from the project staff or from the local men that women are the primary users of water resources and thus they should be involved in making decisions about these resources or else those decisions may not fulfil their needs. The women were rather asked to volunteer in activities that were already decided for them by men. Such activities included the collection of water tariffs and cash contribution to meet the capital costs, and contributing labour, both of which are difficult and time consuming. This lack of women's involvement in key decisions about the project activities resulted in significant losses of their time and energy (Box 23).

Box 23: Results of Women's Lack of Participation in the Planning Phase

Almost all women interviewed in NEWAH, RWSSP and FRWSSSP villages complained that their water collection time has significantly increased (nearly 4-5 times) after they received the improved water services. This is because the tap-stands and the tube-wells are located along the road side where they cannot bathe freely and wash the clothes that they use during menstruation comfortably, for shame of being seen by males. In turn, women in Hile village (FRWSSSP), which is in the hills and therefore is cold, carry water all the way to their homes, several times each day spending significant amounts of energy to do this. In the other three villages, in Tarai, they wait till the dark to undertake these activities. They said they did not have this problem while using the more distant traditional sources where there is no chance of men being around. They complained that this is mainly because the people who came for survey did not consult women while designing the platform and selecting the location for tube-wells or tap-stands.

Joshi (1999) reports similar findings in the hills of Uttar Pradesh of India where 'the local women have even started going back to the traditional sources as they could serve dual purposes - bathing and washing private clothes and bringing water for household use on the way back home'. This situation has again pointed out the danger of these women and their families, especially children, falling into the trap of various water-borne diseases due to the use of unhygienic practices, a cycle that water supply improvement projects should be aiming to break, as discussed in Chapter 5.

Regarding women's participation in project management training, more women were given this opportunity in NEWAH projects than in RWSSP and FRWSSSP. However, in case of training on technical aspects, like latrine construction and masonry, no woman from any selected communities was able to attend such training, which was given only to males. In another technical training (operation and maintenance) also, no women got this opportunity in the FRWSSSP (where the trainee gets paid both during and after the training) and in RWSSP

(in the initial stage) while more women got this training in NEWAH projects (where there is no provision for payment at any time). In leadership development also, some women in the NEWAH projects and one woman in the RWSSP (but no one in the FRWSSSP) got to be in the position of chairperson, vice-chairperson, treasurer or secretary, but, all of them were fully dependent on male advisory board members and other male members of the WUC/PMC, as they could not organise any PMC/WUC activities without consulting them, due to their illiteracy and lack of confidence resulting from not having previous experience of doing similar activities.

The above discussions show that community women's participation in various project activities is not encouraging in any of the cases studied though it is slightly better in NEWAH projects than in others. A number of reasons have been identified from the discussions with local women and men, NGO personnel, PMC or WUC members, field based project staff, women and men caretakers, FHVs, and women motivators for such a poor participation of women in the selected project areas. These are as follows:

i) Men's biased attitude against women, feeling that the latter cannot perform well in committee activities since they are poorly educated and hence not capable of making decisions, and as they are less able to move around as demanded by the project activities. Further, a majority of the men felt that women's primary responsibilities are to take care of household chores, children and the welfare of the other members of the family. Indeed, the women members and the advisors in both the RWSSP and the FRWSSSP areas reported that even when they were invited to attend meetings they could not do so mainly because the meeting place was too far away and no one was sharing their household chores, which they agreed is their primary responsibility. Further, the work load at home was reported as one of the major reasons by the women PMC or WUC members for not holding meetings for several months as reported earlier in Chapter 6.

ii) All the men and women contacted during the research pointed out that limited literacy is another major reason for women to be less confident in making major decisions, even in situations where they were in a majority. For example, in NEWAH projects, even though women were in the position of chairperson, vice-chairperson, treasurer, etc., they had difficulty in keeping records, preparing the minutes of the meeting, and doing other paper

works as required by the implementing agencies, and thus, they were helped by males in performing these tasks.

iii) Despite some understanding of some senior staff about social and gender aspects in a drinking water project, a majority of the staff both at the policy-making level and the field level, especially male overseers and technicians, as discussed earlier in Chapter 6, still presume that water is a technical activity. This very idea of water being technical encouraged them to bypass women, knowingly or unknowingly, in project activities, as they consider that women do not possess any technical skills. This shows the lack of orientation on the part of the staff, including those working in the field, in all agencies that water has both technical and social dimensions. However, a majority of the staff did not have such orientation in any agency until the time of this research as mentioned in the preceding chapter.

iv) One other reason that came out strongly for women's poor participation in various project activities is the less attention given by the field staff on this matter. As mentioned in Chapter 6 and Appendix 7, there is a clear dichotomy between the types of activities in which local women and men are expected to participate. The present understanding of the field staff is that while women are to be included in the discussions about health and sanitation activities, men are to be included in water-related activities. Hence, the women field staff, including the field based motivators and FHVs, put emphasis on the involvement of local women in the former activities, while the male technicians put emphasis on the involvement of local men in the latter activities.

v) The discussions on the project cycle management guidelines made in Chapter 6 have shown that the guidelines of all three agencies are gender insensitive. These guidelines do not specify the importance of involving women and men in various project activities. These guidelines have been frequently using the terms like 'community', 'people' etc. which, though they are gender neutral, cover up the role of women due to various social and cultural factors such as those mentioned above and highlighted in Chapters 5 and 6 and Appendix 7. Because such guidelines are prepared taking into account the national development plans and policies and the donors' strategy documents as the standard as reported by the agency staff in all cases (this has been covered in detail in Chapters 5 and 6), it was natural for the former to be using such terminologies since the latter are also full of such terms. Because the field staff

follow the project management guidelines as their main basis for planning, designing and implementing their water supplies, there is, therefore, a high possibility that they can overlook the involvement of women in various project activities since the project guidelines are not strong on this aspect. All of this shows how the gender insensitive water policies of international donors and national governments, as discussed in Chapter 5, and the project guidelines of the concerned agencies, as discussed in Chapter 6, can lead project staff to bypass women's participation at community level.

vi) The culture that is prevailing in NEWAH, RWSSP and FRWSSSP is another reason for local women's poor participation in various project activities. As discussed in Chapter 6, the number of women in general and in decision-making positions in particular, is very small in all agencies (more so in RWSSP and FRWSSSP and less so in NEWAH). The discussions in Chapter 6 have also shown that the involvement of women in policy-meetings is almost nil in all cases. Since even the qualified male senior staff in these agencies have not yet visualised the need for increasing the number of women in general and in decision-making position in particular, and their contribution in policy matters, it is perhaps natural for these people along with the project staff and the local men to ignore women's active participation in various project activities.

vii) Women's poor participation in project activities, in all cases, is also due to the inadequacy of social preparation time that is presently spent by the project staff in the field. Because the women in all project communities are poorly educated, lack experience of being involved in similar activities and are thus less confident, and have multiple roles to play, they need a lot of orientation, guidance and encouragement from field staff to build up their confidence. At present, this aspect is not addressed in any project. In turn, the women in the project areas had difficulty to understand why they had to be active in the project activities, how effectively they could cope with their new roles and responsibilities, and how they might balance their regular activities and the new ones.

Though the activities that are undertaken before the implementation phase in all cases are labelled under the 'social preparation phase', none of those activities is aimed to motivate, convince, and prepare the local women. Instead, they all focus only on the collection of information. Further, because there was no continuity from one project activity to another in

the preparation phase, this also affected the enthusiasm of the local women - all these led to their poor participation in the project. As Moser (1993) argues, when women fail to participate it is not women who are the problem, as frequently identified. It is rather a lack of gender-awareness of planners about the different roles of men and women in society and the fact that women have to balance their time allocation in terms of their three roles.

The reasons why the field staff were not spending adequate time for social preparation are: i) they have hardly a week or so doing the feasibility study and the detailed survey and they do not have extra time for social preparation with women, ii) they are receiving fixed field allowances, regardless of their duration in the field. Though they require more time to work with women, they always rush to finish their work so that they do not have to spend money from their own pocket for their living expenses in the field. As a result, the activities related directly to women's preparation always suffer. These reasons remind the discussions presented in Chapter 6 that it is not sensible to undertake GAD activities if there is no commitment of resources from the agencies for this purpose. Because the GAD activities require more time and demand some extra resources there is no point in undertaking these activities if the agency cannot make such provisions. This is the main problem with all the selected agencies since none of them have allocated any budget for this purpose, though from the review of their project documents and the activities they have been doing it becomes clear that they are trying, in limited ways, to address the issue of gender in their work, as described in greater detail in Chapter 6. From the review of the budget available with all agencies and the subsequent discussions with the agency staff what becomes clear is that the problem is not the availability of funds but rather the attitude and the lack of understanding of the complexity of addressing gender issues and the subsequent advantages of such activities.

viii) The above mentioned reasons for women's poor participation apply to all projects including the one in Magaragadhi, where NEWAH negotiated the water project with a women-led NGO. The discussions with the women PMC members, women members of the NGO, the project staff and the other local women and men led to the following reasons for women's poor participation in Magaragadhi project: i) The need for a water project was felt by some active male social workers and male VDC officials but not by the women's NGO. As a result, all the initial contacts with NEWAH were made by males. ii) The women's NGO did not even know what was going on between NEWAH and the VDC until the time when

NEWAH contacted them to implement a water project jointly through NEWAH and the women's NGO. Hence, the women's NGO did not have a clear idea about how it could mobilise the local people, including women, in different stages of the project, which led to bypassing women in a number of project activities. iii) Though NEWAH decided to implement the project through the women's NGO, the project staff did not pay much attention on the social dimensions, including the important contribution that women could make in a water project. From the very beginning the women's NGO got an impression from NEWAH's project staff that the water project is a technical activity which can be best performed by men though women have a role to play in keeping the water sources clean and maintaining health and hygiene in the household. iv) The lack of educational skills, the lack of experience of similar kind of work in the past and the lack of confidence due to the first two points were other reasons reported for women's poor participation in Magaragadhi project, especially in aspects that required major decisions. These were the reasons why the women's PMC was later reformed including men as half of its members.

The above discussions depict women's unsatisfactory participation in all selected projects at present and the reasons for it, implying that the projects are not much concerned about meeting women's strategic gender interests and thereby increasing the quality of their lives. On the other hand, experiences presented in Chapter 2 and many others, including those reported by van Wijk-Sijbesma (1985), DFID (1998), INSTRAW and UNICEF (1988), Fong et al. (1996) and Hill (1998), prove that if women, representing all groups within a community, do not fully participate in project activities, those projects will not be effective in the long run. By involving women, particularly in the planning, design, and operation and maintenance stages, as well as in complementary health education programmes, drinking water projects can greatly increase the chances of their acceptance, use, maintenance and sustainability.

The above conclusions made by various authors seem to be relevant in the selected projects also since the lack of women's meaningful participation in various project activities has resulted in more burdens but less benefits on the part of community women. Further, such poor participation of women has also resulted in the disproportionate sharing of benefits among women of various categories. This poor participation also has widened the gender inequality in various aspects between women and men of the project communities increasing

the chances of the unsustainability of the practical project benefits for both of them as will be discussed in detail in the subsequent sections.

As mentioned in the beginning of this chapter and in the preceding chapters as well, women's active participation in project activities is necessary not only for the sustainability of practical project benefits but also for improvement in their status and overall development. As Mosse (1993) argues, effective involvement of women in development activities will not only increase their chance of succeeding but also lead to well-being and growth of societies along peaceful and equitable lines. Supporting this argument Moser (1993) also notes that women as much as men have the right and duty to participate in the planning, decision-making, implementation and management of projects which profoundly affect their lives. Since women have particular responsibility for the welfare of the household they will be more committed to the success of a project that improves their living condition. Hence, women's participation is a means to improve project results as well as to enhance their status.

The key issues that appear to be relevant from the above discussions as well as from the discussions made in Chapters 5 and 6, for consideration to increase women's meaningful participation in project activities are: provision of adequate social preparation time, provision of adequate resources, basic literacy skills, proper orientation on the part of agency staff at all levels with regard to the importance of addressing gender issues, higher number of women in general and in decision-making in particular both in the agency and the community, and creation of an environment where men prepare themselves to share women's traditional work so that women can find more time for project activities. Though the water agencies need to consider all these issues while planning and designing their projects, the issue of proper sharing of work between women and men in the project communities seems to be the most important one to be paid more attention since despite consideration of other issues in favour of women they might not still be able to participate in project activities if they find no one in the household who could share the work traditionally assigned to them. If one has to believe that water projects cannot sustain their benefits without women's effective participation, as discussed in greater detail in the earlier chapters, the water agencies should not argue that a proper sharing of work between women and men is not their task.

Alternatively, water agencies can still argue that if the men involved in the project activities become fully aware of gender issues and be able to address all women's needs and concerns, there will be no need to look for women's participation by transferring some of their work to men, which is a difficult task. However, because women's strategic involvement in project activities is a prerequisite of women's empowerment which is necessary not only for the sustenance of project benefits but also for many other reasons, as will be discussed in the subsequent sections, this alternative does not become so valid. Further, the other reason for seeking women's involvement in projects is to provide justice to them as they constitute half the population in most societies and thus deserve the same right as of men. Hence, the next section deals with this issue of gender division of labour in more detail.

7.2 Changes in the Traditional Gender Division of Labour

For drinking water projects to have a chance of being effective and of improving the lives of poor rural women, a focus on changing the traditional gender division of labour is essential. However, the information presented in Appendix 7 shows that in all communities studied, women work much longer hours and perform more activities than men, and all their activities are related to reproduction and unpaid farm and community work. The collection of water in the villages studied falls entirely under women's domain; men collect water only when their womenfolk are sick, menstruating, or away from home. In these communities, when the water source was very distant from the village, demanding hours of walking, men used to help their women so that they would feel more secure. However, after these communities had access to the use of improved and more accessible water facilities the men stopped helping them, arguing that the water supply is now nearer to the home. The men have not realised that because the water source is nearer to home the use of water has increased tremendously among the family members, requiring women and their girl children to fetch water many times a day. The time and energy spent is often almost the same as before (Box 24).

The above situation of the gender division of labour between the women and men of the project communities is no different than that of other rural villages of Nepal. For example, a study carried out by Shtrii Shakti (1995) in 10 rural villages of Nepal shows that rural Nepali women work much longer hours than men; while women spend nearly 11 hours a day men spend only 8 hours a day. Even the study carried out by Mustanoja (1998) in a number of

villages in the RWSSP (one of the three agencies selected for this research) districts and a study of the World Bank (1991 in Joekes, 1991) show a similar pattern in the gender division of labour between rural Nepali women and men as discussed in greater detail in Chapter 4. Regarding the responsibility for fetching water also, a number of studies carried out in various parts of Nepal show that this responsibility lies primarily with women followed by girl children; men shoulder this responsibility only when women are sick or menstruating as in the case of the project communities (WECS, 1995; CMS, 1996; New ERA, 1994; New ERA, 1997; Mustanoja, 1998).

Box 24: Improved Water Services might not save Women's Time

In Motipur, Magaragadhi and Gajedi villages women work up to 18 hours a day, while their men counterparts normally work up to 12-13 hours. There is hardly any regular activity (except ploughing which is considered to be a male reserve) which is not performed by women, but many are not undertaken by men. Even in their supposed rest hours women knit, weave and sew, while men spend their time drinking and playing cards. Men feel that their agricultural work, which is mainly ploughing and preparing the fields, is much harder and more difficult than that of women. They do not realise that in totality women work much more than them and some of their activities, such as spending hours every day collecting fuel-wood and fodder, and fetching water, are at least as labour intensive as theirs. In all communities, the women reported that they used to collect water 4-5 times a day amounting to a total of 80-100 litres per family per day before they got the improved water services, but, after they got the water near their homes, the collection time increased to 10-15 times with the use of nearly 200-300 litres of water a day, due to very high temperature in the lowlands, and thus, everyone wanting to drink and wash in the fresh and cold water straight from the tube-well rather than that stored in the house, which is mostly warm.

Wakeman et al. (1996) also found that women's time spent in water hauling was not reduced despite the water resources having closer to homes. The authors report that the improved water facilities led to a 25% reduction in women's water collection time but an increase in water use from 10 to 30 litres (three times) per capita per day. Such a work-load of women, which is not shared by their husbands or other male family members, is hindering their participation in water supply activities although experiences from all over the world have shown that their active involvement is essential. Indeed, this is one major reason reported by the local women in RWSSP and FRWSSSP, and by women PMC members in NEWAH projects, for not attending and holding community and PMC meetings, respectively, though these meetings were necessary for the smooth operation and maintenance of the tube-wells which have experienced some problems.

Not recognising women's multiple roles, which leave them with very limited time and energy to participate in project activities, the project staff thought that women were not interested. So they proceeded without women's involvement in a number of activities, repeating the mistakes of the past. For example, stating the reason that women have no time, no woman has been included in the construction committee formed in FRWSSSP, only one woman, as a member, and two as advisors, are included in the WUC of RWSSP, no women were chosen to work as VMWs in the FRWSSSP, no women were included while negotiating the project with NEWAH, RWSSP and FRWSSSP, etc. Men members have the feeling that even if these women do not attend the meetings nor take part in any activity, which is what is actually happening in all cases, it would not affect the project (Box 25).

Box 25: Need for Men Sharing Women's Work

The two women advisors of the local WUC in Gajedi village (RWSSP) reported that they attended only one out of ten meetings of the local committee held last year as the meeting place was far and there was no one to share their work at home. They said that though their husbands support them to participate in such meetings they do not realise that their wives cannot do so if they do not share their work at home. The suggestion that came out from these two women was that the projects should focus more on how to motivate men to share women's work rather than spending time in involving women in project activities which is never meaningful without men's sincere co-operation. On the other hand, the men WUC members related that women have a lot of household chores to do and thus are not capable of attending meetings and moving around for project activities. This is the reason why they said they did not include women in the sub-committee which is to look after the construction work.

What can be inferred from these discussions is that the selected drinking water projects of NEWAH, RWSSP and FRWSSSP have not shown any concern to bring about a shift in the traditional gender division of labour (strategic gender interest) between men and women of the project areas though they have been able to bring water (practical gender need) near to the home. This can be confirmed from the types of activities that women and men were involved in both the household and the community. As discussed in greater detail in the earlier section, Chapter 6 and Appendix 7, the community women were involved in secondary activities that did not require any decision-making power while men were involved in activities that required higher decision-making power. For example, women were asked to join meetings, provide voluntary labour during construction, prepare food and feed people involved in doing construction work, collect cash contribution for capital costs and operation and maintenance costs, clean and maintain health and hygiene in the households and around water sources, etc.

which did not enhance women's decision-making power. On the other hand, men were involved in primary activities such as negotiating the project, contacting the implementing agencies, selecting the skilled workers and fixing their remuneration, selecting the PMC or WUC members, caretakers, CHVs, motivators, and other people for various training, selecting the location of tube-wells or tap-stands, and in making many other major decisions. This finding is also similar to the findings of other research studies undertaken in many other parts of Nepal and elsewhere as has already been discussed in Chapter 2.

A number of reasons can be attributed to the lack of focus of the selected agencies in changing the traditional gender division of labour between women and men of the project communities which are as follows:

i) The focus of all projects was, basically, on meeting the water need of people rather than on creating an environment where women together with men could participate in decision-making of various project activities. The involvement of women in project activities other than the ones that are similar to their traditional roles could have facilitated a change in their traditional roles in the households. Though one can argue here, as in the previous section, that changing the gender division of labour between women and men does not fall within the scope of water projects, what has to be clear is that without women's strategic involvement water projects cannot sustain practical benefits, as has already been discussed in greater detail in Chapters 1, 2 and 3, and without men sharing their work they cannot participate.

ii) As presented in Chapter 6 and Appendix 6, none of the objectives or strategies or activities of any selected agency is related to changing the traditional gender division of labour between women and men though the implicit objective is to reduce women's burden of fetching water. The findings of this research as presented in the earlier section and Appendix 7 have shown that availability of water near to home does not necessarily reduce women's burden as the use of water increases with its nearness to home. What seems thus necessary is to make it explicit in the institutional objectives, strategies and activities that creating an environment for sharing of any work between women and men is a part of the agenda of the agency so that the field staff act accordingly. This is lacking at present.

iii) The organisational culture which is not much in favour of women, as discussed in Chapter 6, is another reason why there is no difference in the types of activities that women vis-a-vis

men are doing in the project communities. In all agencies, more so in RWSSP and FRWSSSP and less so in NEWAH, women are mostly involved in non-decision-making secondary activities while men are involved in technical or senior positions that demand a lot of decision-making roles from them. Because of this dichotomy in the types of activities that women and men are fulfilling in the central and the regional offices of the agencies, the same dichotomy between the roles of women and men was thought to be natural in the project communities by both the agency staff and the community members themselves.

iv) The lack of proper orientation on gender to the people involved in the planning, design and implementation of water projects, which could have motivated them to involve women together with men in decision-making roles at various stages of the projects, appears to be another reason for no change in the traditional gender division of labour between women and men of the project communities.

v) The lack of adequate time for the field staff to socially and mentally prepare women to take up some strategic roles different from their usual traditional roles, as discussed in Chapter 6 and the earlier section, is another reason for the ineffectiveness of the projects to balance gender roles in various project activities. A provision for adequate time in the field would have allowed the project staff to carry out a proper gender analysis and organise gender sensitisation activities, like mass-meetings, film shows, workshops, observation tours for people, especially men, in the study communities to clarify that men can and should be able to perform the activities traditionally left for women, as such a redistribution can have a number of positive effects to both the household and the community. As May (1997) notes, one of the reasons for resistance to change in male gender roles is the belief that men are not suited to domestic work, particularly the care of children. This resistance is also because of the low value accorded to women's work as it is not counted in national statistics such as the Gross National Product. On the other hand, many authors - Frischmuth (1997), Bilgi (1998) May (1997) and Chibuye (1996) - argue that a gender analysis and gender sensitisation activities that are thoroughly implemented, including both women and men allow a good opportunity for both sexes to understand how much burden they are shouldering and what would be its consequences on their health as well as in the health of other family members, especially children. At the same time, such activities also help them to understand the advantages of proper sharing of work between the two sexes in the longer term.

vi) The lack of supplementary income generating activities in which women could have invested the time that they save from water hauling is another reason for no change in the traditional gender division of labour between women and men of the project communities. The introduction of such activities could have motivated men to start sharing women's work as was reported by a majority of the local men interviewed in the project communities.

These discussions reveal that the traditional gender division of labour between women and men in the project communities is still the same and the selected agencies and their water projects have not been serious in changing it. On the other hand, many authors (IRC, 1994; Simpson-Hebert, 1989; Davis et al. 1993) argue that this kind of situation does not empower women, does not do justice to women, impedes the process of developing a society with balanced power relationships between the two sexes, and demotivates women from being active in the protection and management of water resources. This results from the excessive burden on women, which increases the chances of unsustainability of project benefits, as happened in the past. As Moser (1993) also argues, many governments and the personnel recruited into their women's bureaux, do not acknowledge that whilst welfarist measures may help low-income women to meet their practical gender needs, they reinforce their subordinate gender position. These approaches are unlikely to reach women's strategic gender needs. Agreeing with this idea, van Wijk and Francis (undated) also note that a shift in the gender division of labour can lead to an effective and sustained water and sanitation sector, a condition for and a part of wider socio-economic development, which could not be attained when one half of the population is either passed by or overburdened.

Indeed, the small number of women attending project meetings, the absence of the few women members in the WUC meetings in RWSSP and FRWSSSP, the lack of seriousness in calling meetings by the women PMCs in NEWAH projects to discuss the status of the tube-wells, and the increasing numbers of malfunctioning tube-wells in RWSSP (8) and NEWAH (9) projects, as presented in Chapter 6 and Appendix 7, support the views of the above mentioned authors. One main reason reported for women's lack of interest and attention in all these activities is their lack of time. This lack of women's involvement, especially of those from the PMCs, in various project activities has resulted in an increase in the numbers of malfunctioning tube-wells causing inconvenience to many women as they now have to spend more time fetching water than before. The effect is even worse on women from the poor

households as they have to spend even more time than the other better off women since they were already far from the tube-wells. In turn, this has also affected in their wage labour activities and children's schooling.

The lack of change in the traditional gender division of labour is also related with the level of women's access to and control over income, various resources and the benefits that arise from them, which will be discussed in detail in the following sections. Rather the question that is essential to raise here is whether the water agencies and their projects should think of addressing the issue of proper sharing of work between women and men so that women can give more time to the projects and increase the possibility of the sustainability of project benefits? Alternatively, should agencies, if they claim that changing the gender division of labour between the two sexes is not their mandate, forget about women's strategic involvement in water projects and focus only on men's involvement, which is easy, less time-consuming and does not challenge anyone's roles. The problem with the latter position is that it does not answer the issues of justice to women, empowerment of women, and maintaining the interest of women in the protection and management of water resources.

When the effects of the lack of change in the traditional gender division of labour were discussed with the staff of the selected agencies, especially NEWAH and the Eastern Regional Office of the DWSS, during the findings sharing workshops, they realised that this is an important issue to be addressed by water projects. At the same time, they also disclosed that the lack of attention on this aspect in the past was mainly due to their inability to see the connection between the change in the traditional gender division of labour and the sustainability of project benefits, women's empowerment and justice to women. This response can be taken positively since NEWAH has recently initiated (January 2000) five drinking water projects, one each in the five development regions of Nepal, on a pilot scale, with focus on gender and poverty aspects in which a number of gender sensitisation activities have been proposed aiming to change the traditional gender division of labour between women and men of the project communities.

The earlier discussions showed why there was no change in the traditional gender division of labour between women and men of the project communities and why the selected agencies were not paying much attention on this aspect despite the fact that this is an important area to

be addressed by all development interventions including water supplies for increasing women's effective participation and thereby projects' sustainability. Alongside the potential impact on the effectiveness of water projects, as discussed above, several other advantages of changes in the gender division of labour also exist, as follows:

i) They can give women more time to become involved in other productive and profit-making activities (Van der Laan, 1998; Curtis, 1986). The increased income will have multiplier effects as will be discussed in detail in the next section.

ii) They can have positive effects on women's health which can lead to many other social and economic benefits for all the members in the family. They feel less mental and physical stress because they have more time and energy for their daily work. They can also minimise many sicknesses and disabilities, such as malnutrition, backaches, energy-sapping anaemia (among pregnant women), and poor quantity and quality of breast milk among breast-feeding women resulting from their continued heavy work, including water carrying, when combined with a poor diet, which is very common among poor women in rural areas (Curtis, 1986; Van der Laan, 1998). Given that there has been a massive reduction, both in terms of quality and quantity, of health services provided from the public sector to the people in the poor rural communities in recent years, the best option for women is to avoid being sick (Jazairy et al. 1992). Changes in the gender division of labour can make a significant contribution to meeting this option.

iii) Sharing of women's work by men can bring improvements in children's nutrition and health, resulting from more time spent in food preparation and more emphasis on child-care (Jazairy et al. 1992).

iv) As children see wider benefits of their parents sharing domestic work, a society with greater gender equality will evolve.

v) Women can find more time to participate in various other development activities taking place in the community, which increases the chances of those projects being more effective in meeting women's and men's practical gender needs as well as their strategic gender interests (Van der Laan, 1998; Jazairy et al. 1992).

vi) The sharing of women's traditional activities, such as carrying water by men, can increase the possibility of girl children going to school, since in many societies girls are kept away from school when there is a lot of work, including water hauling, to be done at home, which normally falls under women's domain. This hypothetical argument has been raised in many other studies (eg: Curtis, 1986; Aziz and Halvorson, 1999; DFID, 1998) though no study has been carried out yet exploring this kind of relationship. One reason for the lack of such a study could be that in many societies men have not yet prepared themselves for sharing women's work and thus the impact on girl's schooling is not yet evident.

In view of the sustainability of practical benefits, as well as a number of other strategic benefits as discussed above, that should result from changes in the traditional gender division of labour between women and men this issue needs to be considered by agencies such as NEWAH, RWSSP and FRWSSSP, while planning, designing and implementing their water projects. The issues that appear to be important for consideration in this regard are clarity on institutional objectives and strategies, proper gender orientation of agency staff at all levels, provision of adequate time for gender analysis and gender sensitisation activities along with provision of adequate resources, provision for income generating activities, commitment of the field staff to involve women in decision-making activities, and a positive organisational culture in which women are not seen differently from men in terms of their ability, skills and competence.

Because the gender division of labour directly impacts on women's and men's access to and control over resources and benefits, the next two sections deal with these two issues.

7.3 Women's Access to and Control over Resources

In water supplies, while access refers to the availability of water resources (a practical gender need), control means having decision-making authority (a strategic gender interest) concerning those resources. By giving women adequate decision-making power, their interest in the projects can be maintained, assisting their effective operation and maintenance. The decision-making power usually comes through increases in bargaining ability which, in turn, arises through increased access to and control over various resources such as income, skills, information etc. In all selected projects, it is apparent that the majority of women have got better access to water resources (the water is accessible in 2-20 minutes' time in all project

areas as against 60-120 minutes before the project), but their control over those resources is not increased. The fact that men played an active and dominant role, more so in RWSSP and FRWSSSP villages and less in NEWAH villages, in all project activities, as already discussed, implies that those projects failed to create an environment where women could participate in making important decisions about the project activities. This finding is similar to the finding of Mustanoja (1998) who reports that in every study ward the majority of women who responded did not feel that they could influence any decision. For example, concerning the decision on cost sharing, 75% of men participated while the figure was only 25% for women. Similarly, in making decisions about where to place tube-wells, 83% of men reported that they had a say, while 86% of women said they did not.

It is true that all of the projects studied have made some attempts to give some control over water resources to women. The examples are attempts to: include women in the PMC/WUC, though the number is very small in RWSSP (1) and FRWSSSP (2) villages, rather than in NEWAH (9 each in both villages), to gather more women in community meetings, to recruit women together with men in the position of caretakers, though not in FRWSSSP, etc. However, the point is that this level of control given to women is not enough in the process of empowering women. The presence of a small number of women in project meetings and in PMC/WUC, which has the right of making decisions about the management of water resources, as explained in detail in Appendix 7, indicates the limited power that women have to control over those resources in RWSSP and FRWSSP villages.

Even in NEWAH projects though a large number of women were present in the planning meetings and in PMCs, indicating women's higher control over water resources, the fact that the PMC of Magaragadhi was later reorganised to include men to take half the seats in the committee indicates local men's and project staff's (all men) bias attitude of giving the control over water resources back to men. Because the other project of NEWAH in Motipur is also going through the same process, this further supports the general tendency of Nepalese men of vesting all the power with themselves. The main reasons reported for this shift in control over water resources from women to men are: i) the difficulty that women had to do the paper work, ii) the tendency of the project staff to pay more attention to include as many men as possible in the project meetings even when the quorum of the women PMC members was full, iii) the lack of encouragement from the project staff and the local men to make

women feel that they can do the job with adequate support from the former, and iv) the discouragement from the project staff and the local men to the women in the committee that the latter have difficulty visiting the project offices and other agencies as required, dealing with officials in those agencies, and that they have to undertake the household chores and thus should go back home soon from the meetings.

On the other hand, as long as women do not achieve the right to make decisions on various committee activities related to water resources, they will not feel confident in themselves, and men will not think that they are capable of making decisions on other activities, including household matters, which in fact is one of the concerns of a GAD approach. For example, as presented in Appendix 7 in detail, the women in all project areas have considerable participation while making decisions about agriculture-related activities, but much less in relation to decisions about household expenditure and almost none when it comes to making decisions about capital expenditure. Among NEWAH, RWSSP and FRWSSSP, the women from NEWAH project areas had higher participation while making decisions about both agricultural matters and household expenditure followed by the women from FRWSSSP areas and RWSSP areas. The factors affecting this participation were the presence of a women-led NGO, the formation of PMCs with more women, more women's participation in project activities, and ethnicity. The last point occurs mainly in the case of FRWSSSP, where a majority of the population belongs to Tamang community (Tibeto-Burman Group), where women are relatively forward and active in outside home activities, as discussed in Chapter 4.

The above discussion shows that once the decision-making pattern moved from activities which have less cash involvement, to activities that involved more cash, women's decision-making power gradually decreased in all project communities. A study carried out by Shtrii Shakti (1995) in Sukhrwar, a Tharu community in west Nepal, which is close to the selected study sites of NEWAH and RWSSP, reports similar findings. This study found that of the total household decisions 88% were made by men and only 6% by women. Similarly, in decisions about domestic expenditure and disposal of household products and capital transactions, the men's share was 86% and 89% as against 7% each for women. The findings of another study carried out by Mustanoja (1998) in RWSSP areas are also similar. The study reports that women have much less power than their husbands in decision-making. This picture does not differ from one locality to the other. The male household heads were asked

who decides how the income is used, who in the household is responsible for keeping records, and who handles the money. Counting together the three issues, 85% of men responded that they alone make decisions. Those wives who can decide alone can do so only about small household expenditure. Not even a single woman reported that she could sell an animal without the consent of her husband.

Because the situation of women in the selected project areas is not much different from other areas in Nepal, in terms of their control over water resources and other household resources, it can be concluded that the selected drinking water projects of NEWAH, RWSSP and FRWSSSP have not done much to improve women's bargaining power. The major reasons for such a poor participation of women in decision-making, as reported by the community women and men, and the project staff are: women's lower literacy, patriarchal attitudes that women are not capable of making major decisions, and women's lack of access to and control over income. Since the last of these was given more importance by most of the women interviewed at various levels and by the literature, and as it can also affect the other two issues, this issue has been discussed in more detail below.

Stressing the need to increase women's income so as to raise their bargaining power Moser (1993) argues that in many societies the starting point for the subordination of women is the family, one of the most powerful and pervasive mechanisms of control. The entry point for debate and negotiation at the intra-household level for women can come at an individual level from increased economic independence. For example, the discussions on the decision-making roles of Nepalese women presented in Chapter 4 shows that though, in general, rural Nepali women have less decision-making power than their men folk, since the latter have more control over resources, the women from Tibeto-Burman group, where women have more social and economic freedom, have higher decision-making power than women from other ethnic groups. Elson (1991) also supports the argument that increase in women's income lessens their economic dependence upon men, increases their economic value, and may increase their bargaining power within the household. Access to an income of their own tends to be highly valued by women, not only for what it buys, but also for the greater dignity it brings. There are many other experiences confirming that women have a stronger voice in household decision-making when they contribute cash income than when they do not earn any income. However, as the following presentations depict, the selected projects of

NEWAH, RWSSP and FRWSSSP have not been able to increase the bargaining power of women of the project communities.

For example, as explained in Chapter 6 and Appendix 7, all the selected projects have a tendency to include women in the position of PMC/WUC members, health motivators, CHVs, pump/tap-stand caretakers etc. which are all unpaid positions. On the other hand, males are hired in the paid positions as VMWs (FRWSSSP/DWSS projects) and caretakers (NEWAH projects) in the gravity flow schemes in the hills. Staff of the agencies argue that the work of a caretaker in gravity flow is difficult and hence it has to be carried out by men with remuneration (Box 26). Similarly, in all projects, it is only men who are hired as skilled workers for the construction of tube-wells or tap-stands and latrines; these skilled workers are always paid.

Box 26: Paid Positions are Usually for Males

In the district water supply office in Dhankuta in the east Nepal three women have been recruited as WSST. However, due to the biased attitude of the senior officers, that women cannot undertake labour intensive activities in the field, they all have been assigned to perform administrative and typing jobs. Similarly, in most of the gravity flow schemes of NEWAH, RWSSP and FRWSSSP, only males are hired as maintenance workers. These maintenance workers are paid initially by the agencies themselves and later by the beneficiary communities. However, in the point sources that include tube-wells and hand pumps in Tarai (the plain flat land), NEWAH and the RWSSP are encouraging women to be in the position of caretakers and this is an unpaid position. The argument is that the job of a caretaker in a point source is easier than the job of a maintenance worker in a gravity flow scheme which is, however, not completely true since the tube-wells also can demand the same amount of time once they become older.

Further, the training that has been provided to the community women is usually non-technical in nature, such as in health and sanitation, cleanliness, record-keeping, etc., none of which actually pays income. On the other hand, the skill-oriented technical training such as latrine construction, masonry and tap-stand maintenance training, which can yield income, is provided to men, though there is adequate experience reported from elsewhere of women taking on this activity satisfactorily (WATSANNEWS, 1996; Fong et al. 1996; Thresiamma, 1998). Taking note of their experience of a project in Mali, Cleaver and Jobes (1996) also argue that in many projects men tend to receive training and salaries as mechanics, masons and spare parts suppliers, whereas women may be trained as pump attendants or so which do not give them either new skills or income. However, when women have been properly trained, results have been positive. For example, in a Dutch supported project in Mali, women

were found to be the most reliable treasurers. It has thus become government policy to have women treasurers, and this job is being properly remunerated.

Another serious aspect of the selected projects is that when they hire women and men as wage labourers the normal tendency is to pay men higher wages than women, as was found in the FRWSSSP (Box 27).

Box 27: Project's Bias: Men are Superior to Women

In one project of FRWSSSP in Hile village of Dhankuta district in east Nepal, the local women who were hired to work as wage labourers during the construction stage complained that they were paid less than their men folk though the total working hours was the same for both of them. As a matter of fact the women even said that the men should have been paid less than them as the men spend a lot of time chatting and smoking cigarettes while women are very sincere in their work. When the project staff and the male WUC members were contacted to find out the reasons for this difference they said that men perform more labour intensive work than women and thus it is natural for them to receive more wages than women.

These discussions show that the women in the project communities do not have control over resources resulting in less bargaining power and less decision-making power. A number of reasons have come out from the discussions with people contacted at various levels and the analysis of the overall situation of the water sector from international to project levels for the lack of agencies' focus to increase women's bargaining power in the selected communities which are as follows:

i) Increasing women's income, and hence bargaining power (one of the strategic gender needs of women) is neither in the policy documents of the donors nor of the Nepali government as mentioned in Chapter 5. As a result, this issue is not reflected in the policy documents of the selected agencies since they consider the former as the basis of their policy documents; this has led to overlooking of increasing women's control over resources in the project communities.

ii) The policy documents of the international donors, the Nepali government and of the selected agencies, as mentioned in Chapters 5 and 6, indicate that the improved water services can save women's time which can be used for other productive activities to increase income. However, because these policy documents do not explain how this can be done there has been no specific effort from the projects to increase women's income, either by introducing some

alternative activities in general or by recruiting women in paid positions in particular, as explained above.

iii) The structure and the culture of the selected agencies which show that there are very few women staff, most of whom are at the lower level and in the soft sectors that yield low remuneration and provide less decision-making power, and the fact that the women Water Supply and Sanitation Technicians (WSST) hired in the FRWSSSP have not been allowed to undertake field work, which could have paid them higher remuneration, as mentioned in Chapter 6, is another reason why increasing income as well as decision-making power of the women of the project communities has not been given importance by the selected projects.

iv) Increase in women's income is possible only by enhancing their skills through appropriate training, building up their confidence by allowing more time during the preparation phase, and providing inputs to initiate new activities that are locally suitable. This all demands commitment on the part of the agencies to make a provision for adequate capital and human resources. However, as discussed in Chapter 6, none of the selected agencies has made any resource commitment for this purpose; this is one major reason why there is no increase in women's income, despite the provision of improved water services in the project communities.

v) The lack of proper orientation of the staff working at various levels in the selected agencies with regard to the importance of increasing women's income leading to meeting several of women's other strategic needs such as higher status, higher decision-making power, higher confidence to initiate other activities etc. is another reason for the failure of projects in increasing community women's control over various resources.

The above discussions answer why the selected agencies have not been able to increase community women's control over resources in terms of their higher bargaining and decision-making powers. The implication of the lack of water agencies' interest in increasing women's income is that, in the absence of economic benefits, women may not be interested or able to continue taking up project responsibilities including that of operation and maintenance of the water system, especially when it is old and demands more time from them. There are several experiences supporting this argument (Green and Baden, 1994b; IRC, 1992).

Indeed, as explained in Appendix 7, the fact that women in the research communities were seen to be active when they were getting some sort of social or economic incentive from the project such as observation tours, or training, and inactive once the project construction was completed and they stopped getting any such incentives, also supports this argument. Due to not receiving any technical training these women are not in a position to make any income after the completion of the projects, unlike men. The decreasing interest of women in performing various committee activities, as discussed in the earlier section, and the increasing number of malfunctioning tube-wells in the NEWAH (9 tube-wells) and RWSSP (8 tube-wells) areas over time, are examples of the lack of economic incentives to women caretakers for their added responsibilities. Further, as depicted in detail in Appendix 7, the husbands and the other male members of the women PMC members were also not so happy about their women spending a lot of time attempting to resolve the problems of the malfunctioning tube-wells or tap-stands. Their complaint was that they could not see why their wives or daughters should be spending time for the tube-wells or tap-stands which are used by many others in the community if they do not make any money out of all these efforts (Box 28).

Box 28: Extra Responsibilities But No Extra income

The women members of the PMC in Magaragadhi village and WUC in Gajedi village said with frustration that " what changes have we personally found in our lives by putting extra time and efforts to the project. As long as we do not earn income, our husbands will not appreciate our opinions. Since we have been asked only to do the non-technical activities and not provided any technical training we are not in a position to make any income even after the completion of the projects, unlike the men, who have received training on latrine construction and masonry. This has demotivated us to hold any meetings or to take any initiatives to resolve the problem of malfunctioning tube-wells".

These frustrations of both women and men and the lack of interest shown to resolve the problems of the increasing number of malfunctioning tube-wells along with the disproportionate sharing of benefits, as will be discussed in detail in the next section, in NEWAH and the RWSSP villages indicate that the sustainability of the practical benefits of these projects is questionable. This is where there is a need to think about whether a tube-well or tap-stand at the household level is more effective than the tube-well or tap-stand at the community level in order to maintain the interest of the users towards the protection and the management of water resources, though the issue of meeting women's strategic gender needs will still have to be considered in either case for women's empowerment, justice to them and overall development.

When the above findings were shared with the staff of NEWAH and the DWSS Regional Office, they, appreciating the need for increasing women's bargaining power for the sustainability of project benefits, said that their emphasis on women's involvement was mainly to increase the efficiency of the projects but not to empower women in terms of increasing their income vis-a-vis decision-making power. They also said that they had not realised how the lack of access to and control over income and various other resources, related to their water projects, can affect the women and men in the project communities from receiving project benefits in the longer-term. Though both the government staff and the NEWAH staff recognised the need to address the issue of increasing women's access to and control over resources, NEWAH has already started translating its recognition into practice as its staff have proposed to include women in a number of technical training such as masonry for latrine building construction, latrine ring making, and to hire them as skilled workers in their pilot projects begun in January 2000.

Apart from the need to increase women's income to maintain their interest as well as that of their male family members towards the protection and the management of water resources, as discussed above, an increase in women's income can also help to achieve greater gender equality between women and men, which is instrumental not only for the effectiveness of water supplies but also for overall societal development, as presented below.

i) It can resolve the issue of paying water tariff since paying such tariffs is considered to be women's responsibility. There are many experiences supporting this argument (van Wijk-Sijbesma, 1998; Wakeman et al. 1996).

ii) Increased income can be spent on children's education, including that of daughters', as women do not want to see them going through the same pain as themselves mainly due to not having proper education. Jazairy et al. (1992) mention that in many societies, women with limited income, who have been left alone by their husbands, are forced to keep their daughters out of school in order to make up for the loss of male help in their fields. May (1997) also supports the principle that women, more than men, are involved in the education of their children, and have lot of insights to contribute for action.

iii) Women may spend their increased income on children's food and nutrition, which leads to improved health of their children. There are numerous studies supporting this fact. Mosse

(1993) notes that increases in the mother's income tend to improve both the quality and quantity of food available for her children, whereas increases in men's income tend to go in productive investments, consumer goods and entertainment. Wallace (1991) also argues that because women have responsibility for the family, money given to them may be the most effective way of raising the health, nutritional and educational status of children, and indeed, of the whole family. There are many other examples of evidence supporting the idea that women's income is significantly and positively associated with children's nutritional status (Jazairy et al. 1992).

iv) An increase in women's income is essential not only for the reasons mentioned above but also for the basic survival of the family as this responsibility falls completely on women, who are the permanent residents of the households, unlike men who regularly travel in search of work and for various other reasons. As Mosse (1993) argues, within the family it is almost always the woman who takes on the burden of keeping the children alive, often going hungry herself. As women and small children are less mobile than individual men, it is the men who go off to look for help, leaving the women and children to fend for themselves. Supporting the need for increasing women's income for the survival of the family, Elson (1991) also comments that it is generally women who have the responsibility for seeing that members of the household are fed, clothed and cared for, and their obligation to meet children's needs is generally regarded as stronger than men's. Jazairy et al. (1992) also argue that the improvement in household food security and nutrition, and food distribution between households, has, in many cases, proved contingent on women's access to income and on their role in household decisions on expenditure. Evidence is accumulating that poor women allocate a greater share of their individual income to food purchases than poor men. May (1997) also supports these arguments.

v) Women's income can lead to a multi-dimensional contribution to overall growth and development. As Jazairy et al. (1992) note, increasing the income of women consumers will result in an increase in demand for goods and services and contribute to the growth of other sectors, which will in turn raise demand for the products and services of the poor. Further, the enhancement of the quality of life and economic status of rural women will build human capacity, increase financial savings and help to preserve and augment the natural resource base. And, finally, May (1997) argues that women share their increased income with their

husbands who are unemployed to preserve the latter's dignity and support their social inclusion.

From the above discussions the key issues that appear to be important for consideration while planning and designing a water supply project from a gender perspective are: whether women together with men get opportunities to earn income from their added responsibilities; whether projects create opportunities, along with providing improved water services, for women to invest their time saved from water hauling so as to increase their income instead of expecting the women themselves to initiate such activities; whether projects provide technical training to women, together with men, so that the former are able to use their technical skills to earn income even after the completion of the project; whether the projects pay equal rates to both women and men whenever there is an opportunity to hire both of them so that the projects do not widen the economic gap between these two sexes. Addressing these issues, along with increasing women's decision-making power, which are all related to women's strategic gender interests, the projects can enable to create an environment where women can think of meeting their various other strategic gender interests that do not directly fall within the mandate of such projects.

The next section will now discuss the possibility of the sustainability of benefits accruing from the selected water projects as meeting this is the main focus of many agencies rather than meeting other strategic gender interests of women.

7.4 Equity in Sharing of Benefits

The issue of equity in the sharing of benefits that local women and men receive from water supplies is related to both the practical gender needs and the strategic gender interests of both sexes. The projects are concerned with practical gender needs when they fulfil the perceived immediate necessity of the local people, especially women, as they are traditionally considered to be responsible for fulfilling those needs. On the other hand, the same projects can lead to meeting women's strategic gender interests when they ensure equity in those benefits by empowering women with skill, appropriate training, confidence and income. Experiences from this research and elsewhere show that failure to meet the strategic gender interests of women can affect even the practical benefits to women and men. Yet, all the selected projects have been found to be concerned only with meeting practical gender needs -

bringing water near the home - but not with meeting the strategic gender interests of women. Because these projects have saved women's water hauling time by 2.0-3.0 hours a day they claim that they have successfully addressed the gender issue, since women have benefited much from them, as their lives have been made more comfortable than before.

The oversight of such a view is, however, that water is not a woman's need alone; it is rather a household or community need, and thus, everyone benefits from it, not just women alone. Rather, for women to benefit fully from the water projects, their other genuine concerns, along with water, need to be met. Such concerns can be related to the following issues: i) whether the projects have included all the women in the community who genuinely need water, regardless of their ability to meet the project criteria, ii) appropriate siting of tap-stands/tube-wells so that all women, irrespective of their socio-economic status, can have easy access to improved water facilities, iii) the provision for some alternative activities in which women can invest their saved time from water fetching and be able to increase their skill, income and status, iv) the provision of extra space so that women can freely and comfortably bathe and wash their private clothes, v) the efforts made to change the water hauling responsibility from women to men, vi) attempts to recruit women in paid positions and to provide them with technical training so as to increase their bargaining power, and vii) measures taken for the smooth operation and maintenance of the projects. Otherwise, not only will the chances of the water projects being unsustainable be high, but the chances of empowering women for developing a society with greater gender equality will be less, as will be discussed below.

The selected projects have failed to bring equity in the sharing of practical benefits, as there are still about 125 households in Motipur, 200 households in Magaragadhi and 26 households in Gajedi (Belbhariya) not benefiting from the projects, mainly because these households could not meet the project criteria as well as for some technical reasons such as lack of aquifer and poor discharge of water, as mentioned in detail in Appendix 7. Among these households 15% each in Motipur and Magaragadhi and one-third in Belbhariya are female-headed and have genuine problems of water and are not in a position to have their own hand pumps. These female-headed households mainly belong to the lower ethnic groups such as blacksmiths, tailors, cobblers, and Mallah. As these families are still using the traditional source, the health situation of their children was reported to be poor due to frequent

dysentery, diarrhoea, eye infections and other stomach upsets (Box 29). Further, the girls from these families are not going to or continuing at school as they have to help their mothers in household matters including water collection.

Box 29: Higher Vulnerability but Lower Access to Benefits

A Mallah woman from Belbhariya village of Gajedi drinking water project related to this researcher that she still has to rely on a traditional pond to fulfil her water needs as she is far from the areas where improved water services have been provided by the RWSSP. She said she and some of her other colleagues could not manage to install a tube-well in their area as they could not form a group of 10 households, which was the project criterion to get the tube-well. Because she is poor and comes from a lower ethnic group, she could not build a house in the centre of the village which is mostly occupied by people who are rich and from higher ethnic groups. She also said that because her husband is mostly out of the village in search of work due to their poor economic status, she could not voice her concern while the tube-wells were distributed in her village. The use of the pond has led to frequent stomach upsets in her children. She felt that the people who are in the centre should perhaps have first access to benefits as they are the first point of contact with the project staff rather than those who are on the periphery and hardly know what is going on in the village.

Moreover, as explained in detail in Appendix 7, even among the beneficiaries, the poorer women from the lower ethnic groups still have to walk more (approximately 20-30 minutes) than more well-off women (2-10 minutes) as the former could not voice their concern well while locating the tube-wells. There are many other examples like this which show the lack of concerns of the water projects in benefiting as well as empowering poor, voiceless women. Accordingly, such women are understandably less interested in protecting the newly installed water supply, which may hasten the failure of such water supplies (Box 30).

Box 30: The Grief of Poor, Vulnerable and Marginalised Women

A widow in Magaragadhi village (NEWAH) whose husband had died years ago, said with grief that she was never invited to participate in any meetings including that which dealt with the siting of tube-wells. Since there was no one to speak for her and she could not voice her concern due to her poor economic status, the tube-well in that community was installed without considering how much she has to walk. As a result, while other women can collect water just in 2-10 minutes she has to spend nearly 30 minutes at a time, which affects the time she has available for wage labour without which she cannot help her three children to survive. She then remarked, "will there ever be a time when such poor women who cannot voice their concerns are also treated equally in the community?".

Another poor woman from the lower ethnic group called Mallah in Gajedi village (RWSSP) remarked with frustration that she and many other women from her ethnic group still spend one to two hours collecting water in one stretch while the women from the higher ethnic groups have been able to install the tube-wells right in front of their homes. She further said that such a discrepancy makes her and her colleagues, who are not receiving benefits from the project, feel like doing something to the project tube-wells so that all are then on an equal footing in the community.

Women have been able to save some of their water-fetching time because the water is near their home, but again, the irony is that they have not been able to invest their saved time properly in any income generating activities, which could have given them higher decision-making power, as none of the projects has introduced any such activities for them. Instead, the saved time has been used to do the same household chores as before, but with more time, and to help men in their farm work so that men could go to do wage labour and earn more income. This has even widened the power balance between women and men giving the latter more power with more money. The study carried out by Mustanoja (1998) reports the same finding. These two similar findings reveal that water projects are still not concerned with meeting the strategic gender interests of women for a better societal development.

The other negative sides of the projects are that the women in the lowland have not been able to benefit much from the improved water services as the use of improved tube-wells with hand pumps has given them pain in the back and around the waist due to the pump-handle being too short for their height. Similarly, in gravity flow schemes the project benefits were accrued more to men as they were preferred over women for wage labour work. Similarly, as discussed in Chapter 6, Appendix 7 and at the beginning of this chapter, all the selected projects failed to meet the other genuine needs of the women of all communities i.e. to make provision for an extra space in places where tube-wells or tap-stands have been installed so that they could perform their washing of private clothes, especially those used during menstruation period, and for bathing freely. This complaint was reported by almost all women who were interviewed in all four project communities. Hence, as reported earlier, these women are either carrying water back home (in FRWSSSP) or performing these activities at the tube-well site itself when it is dark so that there is no chance of them being seen by males while performing these personal activities (in all NEWAH and RWSSP villages). This is one classic example of women not being able to enjoy even the practical benefits of the projects. This situation compels one to ask the agencies involved in the water sector whether they can claim that they have been able to save women's water hauling time, whether they have been able to improve the quality of women's lives by reducing their burden, whether they have been able to meet the needs and interests of all people in their project communities, and whether their project outcomes can be sustainable when they, in a

real sense, have not been able to benefit women, though they are expected to take the responsibility of protecting and managing the water resources.

While the discussions made in the earlier sections in this chapter have shown that the projects have failed to provide long-term benefits to women, such as through change in the gender division of labour and empowering women with the development of various skills and technical training, the discussions in this section show that the selected projects have failed even to provide many women with short-term benefits. This has developed frustration among women which has resulted in their lack of interest to undertake regular committee activities including the maintenance of the malfunctioning tube-wells.

An equally important aspect affecting the equity of the project benefits is the provision made by the projects for appropriately resourced caretakers/village maintenance workers, especially women, as they notice first any defect in the system, and for the regular collection of water tariffs to facilitate consistent operation and maintenance. In the selected projects, provision has been made for a caretaker for each tap-stand or tube-well, but, what is interesting is that both the FRWSSSP and NEWAH projects are selecting males in the gravity flow schemes, arguing that the work in the gravity flow schemes is labour intensive and thus males are more suitable than females, and females in the point-source projects, with the same logic that the work in point sources is easier and thus women can be involved in such work. For example, it was reported at the regional office of NEWAH that out of 16 projects in the hills in 1998/99 no woman has been selected in the position of caretaker; the same applies to FRWSSSP/DWSS projects. On the other hand, many women of the project communities whilst interviewed and Fong et al. (1996), IRC (1992 and 1994), FEMCONSULT (1998) etc., from their experiences of women's involvement in operation and maintenance of various water systems, argue that women can look after the systems as efficiently as men if they are provided adequate training and knowledge with timely supervision until they feel fully confident.

The tendency of the selected projects, such as NEWAH and FRWSSSP, selecting men as caretakers in the gravity flow schemes compels one to say that the chances of achieving sustainable benefits are higher on the part of projects in Tarai than in the hills since the former receive more attention from women as they daily visit the system, than the latter.

However, even in Tarai, the question arises as to how long the projects like NEWAH's and RWSSP's can motivate the men and women caretakers to continue giving their time to the operation and maintenance of tube-wells when they get older and demand more time from them, since their involvement in the point sources is expected to be voluntary. In contrast, the caretakers (mostly males) in the hills are paid in all projects. Because women caretakers are not hired in the paid positions and are not provided any training which can give them income in the future, there are high chances of failure of these projects, since these women can quietly opt out of project activities as they see the extra burdens put upon them without commensurate benefits. There are a number of experiences supporting this argument (Longwe, 1991; Green and Baden, 1994b). The lack of interest shown by the women's PMC to repair the 9 broken tube-wells in Magaragadhi and by the women caretakers to repair the 8 malfunctioning tube-wells in Gajedi, even after several months, supports this argument.

What can be inferred from these discussions is that the practice of recruiting women as caretakers in NEWAH and RWSSP is only a tokenism since these women have not been able to benefit much from the added responsibility given to them. The agencies' claim that 'availability of water near their home' is the benefit to these women caretakers is not fair, since these women would have received this benefit even without taking up that extra responsibility, as many other women and men have in those communities.

As presented in detail in Appendix 7, one other dissatisfaction reported by women in NEWAH and RWSSP villages is that the majority of the women that are selected to be caretakers are from well-off families, who in the long run might be able to have their own private tube-wells. Once this happens they will quit their responsibility, which is a loss to the projects and the communities as these women caretakers will already have developed a lot of experiences. This would not have happened if equal opportunities were given to women from all households, including the poorer ones, who were interested to be in the position of caretakers, and who are the genuine and the long-term users of these tube-wells.

The issue of equity in benefits is also related to whether a provision is made for a regular collection of water tariffs from user households so as to lead to a smooth operation and maintenance of tube-wells and tap-stands, and whether the rates of the water tariffs are decided taking into account the ability (socio-economic situation) of the user households.

Concerning collection of water tariffs on a regular basis, which is one key factor determining the sustainability of water supplies, only the WUC of the RWSSP is active, but not the others. However, even in RWSSP the problem is that the WUC is attempting to collect a similar amount from all the user households, without considering factors such as the number of water users in the family, total income of the family, female-headed households, person responsible for paying the water tariff etc. In all selected projects, as in many communities elsewhere (Ahmed and Raza, 1999; Wakeman et al. 1996; van Wijk-Sijbesma, 1998), paying the water tariff is considered as women's responsibility. There are a number of reasons for this understanding or misunderstanding as follows:

i) Because women mostly deal with water, women as well as men in the household assume that all water-related activities, including the payment of tariff, falls under women's domain, as discussed earlier in Chapter 2 and Chapter 5. ii) Women are the permanent residents of the households as men keep moving to other places in search of work, as there is a clear dichotomy between the inside and the outside home activities in Nepali villages, as explained in Chapter 4, and thus women are considered responsible for all household responsibilities including paying the water tariff. iii) The formation of women-only water committees in projects such as NEWAH has given the impression to men that the project is a women's project and thus women should take care of all responsibilities that arise out of such a project.

The problem with considering the payment of water tariffs as women's responsibility is, however, that because they do not have control over income they have difficulty in paying the fee. though they are willing. This problem is made even worse among the women of female-headed households, as they have difficulty running their family as well as meeting the water tariff, with their meagre resources. Fong et al. (1996) go on to say that in discussions with the community in one project it was revealed that 80% of those who could not afford the planned flat fee were female heads of households. Giving further evidence about the difficulty of women-headed households in paying the water tariff, Wakeman et al. (1996) also argue that in areas where women have access to land, credit and other resources, they use the time gains for income generation. In turn, part of that income goes towards paying for maintenance of the water system. However, one-third of the women - most of them heads of households - do not benefit because they cannot pay the water tariff.

In the selected project of RWSSP also, though a majority of the users were paying their contributions at the time of this research, it was found that there were some late payers (28 out of 282), among whom many were women (22) whose husbands have either died or gone to other places in search of work. Neither the PMC/WUC members nor the project staff have thought of subsidising the cost of water tariffs for those who cannot afford it (Box 31). As a result, there is a danger that these women may go back to their old unhygienic water sources, increasing again the chances of detrimental effects on the health of the whole family (Evans, 1992 in Baden, 1993). On the other hand, the provision of subsidies can increase poor men's and women's interest in the protection of the system, as experienced in Mali and Niger (FEMCONSULT, 1998).

Box 31: Water Tariffs and the Female-Headed Households

In one meeting related to the collection of water tariff from the user households in the Gajedi village (RWSSP) it was found that the water tariffs were mostly paid by women and among the defaulters, a majority were women from the female-headed households. The decision that was taken in the meeting was that if the defaulters do not pay their dues within the next 15 days they will not be allowed to use the tube-wells. As a matter of curiosity two of such defaulters were met to find out the reasons for their default. Both of them were very poor and had the problem of a hand to mouth existence. One had two children and the other three. The small piece of land that they had was not enough for their survival. As a result they had to work in others' farms or houses for wages in kind. Once they heard the committee's decision they were wondering what they were going to do if they are indeed not allowed to use the tube-well.

Further, even among the timely payers, who are mostly women, as observed, there is some dissatisfaction about the equal amount to be paid by all. Since this, along with the fact that women do not have control over family income, has led to the discontinuation of the collection of water tariffs in NEWAH projects this situation may also arise in RWSSP. In the FRWSSSP also, since none of these issues has been considered with regard to the collection of water tariffs from the users of 11 public tap-stands, it is difficult to ensure the sustainability of the system. The original idea of subsidising the cost of the public tap-stands from payments made by the private connectors, is not yet finalised, as there are still some conflicts concerning this proposed arrangement among the private connectors themselves.

The above discussions show that the selected projects in Nepal have failed to take into account the particular needs of women and other marginalised people though a number of benefits such as initiation of kitchen gardening, less stomach problems, rice seed-bed

preparation when the monsoon is late, more children going to school etc., as explained in detail in Appendix 7, have been enjoyed by some households in NEWAH and RWSSP villages. The projects' ineffectiveness to address the issue of equity has questioned not only the assurance of the long-term benefits from the project but also the fulfilment of the immediate concerns of many women to relieve their increasing burden. This has raised dissatisfaction among women caretakers and women PMC members to continue working hard during the post-construction phase which has resulted in an increase in the numbers of malfunctioning tube-wells in both NEWAH and RWSSP villages. What implies from this situation is that the projects cannot provide long-term benefits, either practical or strategic, to women and men in the project communities if corrective actions are not taken on time. As a result, it is not only the benefit of having water near home but also the other advantages that are presently enjoyed by some households will not exist after some time.

Despite the positive results arising out of the equal sharing of project benefits and the consequences if the issue of equity is not properly addressed, as discussed above, the selected agencies failed to create an environment where the issue of equity could have been given top priority. The reasons that came out from the discussions with people at various levels for such a failure of the selected agencies are: lack of clarity in the project objectives and strategies with regard to the types of practical and strategic benefits that the projects should aim to provide equally to the local people, lack of clarity in the project management guidelines regarding the need for exploring the genuine needs of women and men of all categories while planning the project activities, and the lack of commitment of resource to invest in various women to increase their skills, confidence and income. The further exploration of the lack of clarity about the issue of equity in project benefits in the agencies' documents that guide the implementation of their projects highlighted the following reasons:

i) Lack of understanding among the agency staff that even among the women and men beneficiaries there are various categories due to their class, ethnicity, social structure, etc., and therefore, they will have different needs and concerns which need to be dealt separately. ii) The notion among the agency staff that the benefits arising from the project will trickle down equally to all women and men of the project communities. iii) The lack of a clarity among the agency and the project staff on gender roles, responsibilities, power structure, etc., of the women and men of the project communities which actually determine their access to

and control over various project benefits. iv) Agencies' inability to see a connection between strategic gender interests (equity and empowerment in this case) of women of all categories and enjoyment of project benefits by them on a longer-term. v) Agency staff's over focus on men over women when including them in various stages of the project assuming that the former can represent the interests and concerns of the latter. vi) Even when some women were involved in various project activities, the project staff assumed that these women can represent all other women in the community, regardless of the differences in their social status, economic class, ethnicity, etc.

Hence, from the above discussions, some issues appear to be important for consideration by water agencies while planning, designing and implementing their water supplies so that they can achieve equity in the sharing of project benefits, sustainability in those benefits and a balanced power relationship between women and men - a strong indicator of sustainable human development. They are: i) a better understanding of gender issues in development in general and water supplies in particular, ii) a clearer opinion on women's strategic gender interests and how they impact equity and sustainability of project benefits, and iii) a better picture of the differences in gender roles, responsibilities and power between and within women and men of various categories in terms of class, social structure, ethnicity, and how these determine women's level of access to and control over various resources.

This all can make the project staff feel that there is a need to create a mechanism for an equitable sharing of information, knowledge, and other benefits among all women and men in the project communities. A clearer understanding of these issues also helps the project staff to consider the social and the gender aspects, along with the technical ones, while determining the needs of women and men; to hire women, especially from the poorer sections, to the position of caretakers with appropriate training and remuneration (or incentive such as water without payment of a fee); and to provide payment to women as well as men for their extra responsibilities. Similarly, this understanding also facilitates a process to make provision for alternative activities with necessary training to increase women's skills, status and income; to decide the amount of water tariff based on the economic status of the household, the number of members in the family and the person paying it; and to develop a mechanism of subsidising or exempting water fees from those men and women who cannot really afford it.

The next section deals with the extent to which the selected projects have improved women's status and confidence so as to initiate new development initiatives - the final indicator of women's strategic gender interest proposed in this research.

7.5 Changes in Women's Status and New Development Initiatives

One important strategic gender interest of women that a development project, like those in the water sector, should address, is an improvement in women's self-esteem, in their confidence to initiate new activities in their communities, and hence in their quality of life. Even if projects can have direct impact in improving the lives of only a few women this can have multiplier effects in the long run, both in the family and the community, as these women can be seen as role models by others. However, as the following discussions reveal, none of the selected projects has had much success in this respect.

Because a large number of women were involved in various phases of the NEWAH projects, and a good number of women are in the PMCs and in the position of caretakers, these women were observed to be relatively more knowledgeable and enthusiastic about talking with the researchers than the women of the RWSSP and FRWSSSP villages. Even in the RWSSP and FRWSSSP, the women who are in the WUCs and in the position of caretakers are relatively more active than others in the community, as observed and reported by the local women and men. During the discussions, many of them revealed that they received a good exposure to the development sector after being in PMCs/WUCs, receiving training, being in the position of caretakers etc. This gave them some confidence in talking with outsiders, which they could not do before, but, because the number of such women is very small in all projects and particularly in RWSSP and FRWSSSP, and that they have not been able to impact other women yet in the project communities, it can be said that the selected projects have made only a little change in the status of women in general.

Further, as a majority of the women in the PMCs/WUCs and in the position of caretakers were already active, being the members of some relatively well-off families in their communities, which was the major reason reported for their selection, it cannot be said that their activeness, enthusiasm and increased confidence are the result of the projects alone. This can also be supported by the fact that no other change in their lifestyle has resulted. For example, none of them is involved in income generating activities though the women who

have tube-wells just outside their home have some more free time as compared to the women who are a little farther from their tube-wells. Again the reason is the lack of ideas about activities that can be done locally and lack of resources to initiate those activities. Moreover, the fact that the women PMC members in NEWAH projects think that the concerned NGOs can exchange them for other members anytime they want is another indicator of women's lack of confidence in themselves.

Similarly, the women PMC members in NEWAH projects have not held meetings after the projects were handed over to them about two years ago, due to their lack of confidence, though, according to NEWAH staff, they were supposed to hold meetings every month. The meetings were necessary to discuss about the increasing number of malfunctioning tube-wells and the problems that women using those tube-wells are facing due to lack of adequate water, sandy water, more time that is spent to collect water from other tube-wells etc. Further, the meetings were also necessary to discuss how the local PMCs/WUCs in general, and the women PMC/WUC members in particular, can organise themselves to translate their confidence into implementing other drinking water projects in the vicinity, especially for the people who are deprived of water facilities, mainly in NEWAH and RWSSP villages, where there are still a significant number of households suffering from the shortage of safe drinking water, as mentioned in the earlier section. Though the decisions about the village development activities are all made by the VDC, which is male dominated as mentioned in Chapter 5, the local PMCs in case of both NEWAH projects of Motipur and Magaragadhi, where there are more women, have the right to make decisions about project related activities. However, it was reported by all interviewed locally, including the women PMC members themselves, that they have no confidence to take any major decision in the absence of NGO personnel and the male advisory board members.

It is true that a few women in NEWAH projects have felt some satisfaction from being in the PMC, in the position of caretaker and from the fact that they are sometimes asked to mediate if there is a conflict between family members in some households. However, aside from these few cases, there is no sign of women organising themselves for other community development activities or fighting for the fulfilment of their other strategic gender interests in any selected project. It has been clear from the earlier discussions that there is no significant change in the traditional gender division of labour between men and women of the project

areas, in women's access to and control over income, in women's decision-making power, and in technical skills, all of which could have increased their status, confidence, and bargaining power both in the household and the community.

At present, there is no, however, difference between the status of the majority of the rural women in Nepal and the women of the project communities, as can be concluded from the analysis of the information about the status of women presented in Chapter 4 and in the earlier sections of this chapter. Rather, the selected water projects have even widened the gap between the status of the men and women since the men in all research communities have got more time to work as wage labourers, after women started helping them in agricultural activities, due to their small time-savings from water hauling. The lack of improvement in the status of women of the project communities can also be confirmed from the limited opportunities they have received to make decisions both in the household and the community. As discussed in Appendix 7 in detail, Chapter 4, and the preceding sections of this chapter, women's participation in household and community decision-making is limited to non-financial matters. Their participation in making decisions related to financial matters is almost nil both in the household and the community.

The main reason, as reported by a majority of the women that were interviewed in the four research communities, for such a poor status of women, is the level of economic contribution that they have been able to make in the household. Though the rural Nepali women in general and the project women in particular, have been working much longer hours and their level of contribution to the survival of the family is much higher than their men counterparts, as discussed in the earlier chapters, they are still not considered as the breadwinner in the household since whatever cash comes into the family is mostly through men. The women in the project communities have not been able to bring any cash income to the household from their participation in the project activities, and thus, their male members are not giving much respect to their roles in the project. Jazairy et al. (1992) also support this finding as they report that in a survey of women beneficiaries of Grameen Bank loans in Bangladesh, all the women interviewed reported that relationships with their husbands and relatives had improved as a result of their individual economic contributions to family welfare.

The other reason for the lack of improvement in women's status, as they came out from discussions with local women and men informants, NGO personnel, and the women and men PMC members themselves, is the lack of mention of 'improvement in women's status' as one of the objectives in the agency documents. As a result, involving women in various project activities to improve their lives and status was not in agencies' priority. Whenever women were involved it was only to increase the efficiency of the water projects but not to empower them giving higher income, knowledge and status. This led often to bypassing women and their activities In the project activities. In turn, women, including those in the PMCs or WUCs do not still have a clearer understanding of their new roles and responsibilities; projects' have not focused on activities that could improve women's status; and women have not been given either on-the-job training related to their various roles and responsibilities or other literacy, skill development and technical training, which are the prerequisites of their higher status. There was also no gender orientation to both women and men which could have facilitated improvement in women's status by encouraging men to share women's traditional work so that the latter could spend more time in project activities related to improving their status.

Emphasis on those aspects could have helped to change women's self-esteem by raising their consciousness about the symptoms and causes of prevalent social, cultural, legal practices backed up by the strong patriarchal system. Joosten (1998), Mosse (1993) and Hill (1998) also support this argument by noting that non-formal education programmes and technical training can offer both practical skills and a chance to increase confidence and self-esteem, a basis from which to challenge the apparent rigidity of social structures; this increase in women's practical skills would have been highly recognised by men as well. Many other authors including Chibuye (1996), Penny (1991) and Jazaire et al. (1992) also emphasise the need for education and skill training as two important strategies to empower women; the Nairobi Forward Looking Strategies also stress again and again that education, along with other opportunities like employment and health, need to be emphasised at the grassroots level to uplift the status of women.

In this regard, some people, including some of the senior staff from the selected agencies, argued that addressing these activities will involve additional cost and will increase the cost per capita of the project, increasing the chances of the project not getting funding from the

donors, as this is one major criterion for many of them to decide whether or not a project should be selected for funding. This concern seems quite valid from the point of view of the implementing partners such as NEWAH, RWSSP and FRWSSSP. However, the point is that if these issues are not addressed on time there is a danger that the projects might not be sustainable in the long run as they can neither fulfil the practical benefits nor the strategic aspects of women's lives and thus lack women's interest towards the project as discussed earlier. Further, any development intervention such as water supply should be considered as an entry point for the initiation of other development activities locally and this will be possible only if the concerned people, including women, feel confident of their ability, improved through their active participation in the water projects. Moreover, the issue of addressing justice to women is another aspect which also needs to be considered by development agencies. Hence, because of all these reasons, even if there will be some extra cost involved while addressing these aspects of empowering women, they will, in the long run, be very fruitful to the local people as well as the country.

Apart from the reasons discussed above for the lower status of women in the project communities, the other main reason is the gender insensitive environment at the organisational, national and international levels where improving women's status is not the focus highlighted in policy documents. Because the status of even the limited number of women staff of the selected agencies is not high, as a majority of them are in lower levels and in non-technical positions yielding lower financial benefits, the issue of improving the status of the women of the project communities did not appear as a priority in the minds of the people making policies and planning, designing and implementing their water projects. As a result, neither the objectives nor the project management guidelines, which indicate how the institutional activities are performed, highlight this issue. The reasons reported for the lack of focus on improving women's status in the policy documents, especially at the national, institutional and project levels, are almost the same as before: lack of realisation that it should be the focus of an agency engaged in the water sector, lack of attention on this issue, bias attitude of male planners, policy-makers and those in the decision-making positions that improvement in women's status is related to the efficiency of the projects. Being influenced by the GAD literature and work through interaction with various people working in this

sector, NEWAH has decided to implement a number of projects on a pilot scale with focus on women's empowerment to judge how the latter impacts the sustainability of project benefits.

What can be inferred from the above discussions is that the selected projects have not yet improved the status of women of the project communities. On the other hand, experiences reveal that the lack of improvement in women's self-esteem, confidence and skill can adversely affect projects (Moser, 1993; Mosse, 1993). Indeed, the women WUC/PMC members' passiveness seen in performing various project activities after the projects were handed over to them, the increasing number of malfunctioning tube-wells (5 in 1998 and 3 in 1999 - 8 in total by 1999), in the RWSSP and (4 in 1998 and 5 in 1999 - 9 in total by 1999) in the NEWAH project, and the lack of seriousness caused by the lack of confidence and motivation to repair these tube-wells, support this fact. Conversely, training women in non-traditional areas, is an important strategy in meeting strategic gender needs. This strategy may involve giving women extra training to enable them to express their ideas and develop the skills for consultation and negotiation processes. SIDA, for instance, provides a good example of equipping women with new skills, providing them with both practical and strategic tools which may increase their confidence, status and ultimately their authority (Cleaver and Jobes, 1996). In fact, women's increased status should not only prepare them to continue taking up their assigned responsibilities in water supplies but also lead to many other advantages as follows:

- Women can think of initiating or at least discussing the possibility of running new activities related to improving their lives in the communities.

- Women can organise themselves for fulfilling their various strategic gender interests, the absence of which has made their lives vulnerable. For example, domestic violence is very common in the rural parts of developing countries such as Nepal. This can be minimised or even stopped by increasing women's confidence and self-esteem.

- Because women are the permanent residents of the households, are in most contact with their children and deal with water related activities which affect people's health, their increased confidence can have multiplier effects on aspects such as better education for children, better health for the family, and acting as better sources of information for many other fellow women in the community.

- Increased status can also motivate women to start new ventures or be more productive to increase their income which can again give them more status with control over income.

The reasons discussed above give enough justification regarding why women's status should be increased by water projects. Hence, the key issues that appear important from the above discussions to be given due attention in water projects are building up women's confidence by providing them with training on literacy, skill development, technical aspects and giving opportunities to increase their income either by recruiting them in paid positions or creating an environment where they can participate in income generating activities. However, a number of factors such as the timing of training to women, certainty of regular supply of inputs and resources, easy access to markets, involvement of both men and women, provision for literacy and numeracy training, etc. need to be considered while planning any income generating activity since there are many cases of success and failure of such ventures (Mayoux, 1991; Puganosa and Amuah, 1991; Wadehra, 1991; Kamminga, 1991 in Baden, 1993; Acharya, 1997; Mosse, 1993) due to the proper attention or lack of attention paid to these aspects. Otherwise, failures not only divert women away from more productive activities, but may also disillusion them from attempting any new ventures.

7.6 Summary

The purpose of this chapter was to examine the extent to which the selected drinking water projects have been able to meet women's strategic gender interests along with women's and men's practical gender needs without which the newly developed water supplies can neither guarantee sustainable practical benefits to women and men nor can they lead to better development.

The analysis made in this chapter, however, shows that the selected projects of NEWAH, RWSSP and FRWSSSP have not been able to satisfactorily address women's strategic issues. Despite vast experiences showing links between women's meaningful participation and effective project results, the selected projects have not been able to achieve women's strategic involvement at various important phases, though the presence of women in various meetings has increased as compared to the past. Similarly, although the projects have brought water near people's homes it has not in practice saved much of women's time as the use of water by the family members has tremendously increased with its proximity to home. This clearly

indicates the need for projects to focus on activities that can motivate men to share women's traditional work including that of collecting water, but, at present, the projects have not paid much attention to this aspect. The projects have failed to understand that without women's participation, water supplies cannot be effective and without men sharing women's work women cannot participate. Aside from this, there are many other potential advantages of changes in the traditional gender division of labour.

Likewise, in spite of a number of positive effects of higher income such as effective operation and maintenance, better survival of the family, better nutritional status of the children, improved children's education including that of daughters, etc. the results of the projects show that they have not been able to increase women's access to and control over income and thereby their bargaining power and decision-making ability in any community, since the normal tendency of all projects has been to recruit males to the paid positions and females to the unpaid positions. Even the technical training which could raise potential income in the future has been given more to men than to women. All of this has discouraged women to take project activities seriously, questioning the sustainability of the projects. One serious implication of this kind of unequal treatment is that, in some instances, it has widened the gap between women and men even more than before. The projects have also failed to benefit all those living together in a community because of their technical rigidity. The poor people, including women from the female-headed households, are having difficulty in meeting the cost of water tariffs, implying that they might not receive the project benefits once they fail to meet this criterion. Even among the beneficiaries the poor, voiceless women still have to walk longer to collect water than other women from well-off households.

Finally, the projects have also failed to enhance the self-esteem and status of community women though these could have led to many other benefits to them, their families and the whole society. The increased status would have given enough confidence to women to actively participate in water projects and other development activities as well as to help to reduce the domestic violence, which is very common in a country like Nepal, and which is a major reason for women lagging far behind men. In turn, the women in the project communities not only failed to initiate new development activities but also to continue doing their regular committee activities; both of which could have helped to develop a more gender egalitarian society. The fact that except in a few households, where women are in the

PMC/WUC, the men are not consulting their women while making decisions about capital expenditure, and partly about household expenditure, is another example of women's poor status in all communities studied.

What can be concluded from the discussions on the five indicators of women's strategic gender interests vis-a-vis women's empowerment - women's effective participation in various project activities, changes in the traditional gender division of labour, women's access to and control over resources, equity in project benefits, and improvement in women's status - used in this chapter to analyse the outcomes of the selected projects, is that the selected projects have failed to empower women. The result is that the local women are not showing much interest towards the management of water resources and other PMC or WUC activities. This has led to an increase in the numbers of malfunctioning tube-wells and the households being deprived of improved water services. It can thus be concluded that the five indicators of women's strategic gender interests discussed in this chapter and the sustainability of project benefits are interrelated. On the other hand, the discussions also confirm that in the absence of the empowerment of women and the sustainability of practical benefits, the selected projects have diminished the likelihood of achieving a society with greater gender equality and balanced power relationships between women and men, a strong indicator of sustainable human development. The reasons for such a situation, which were discussed in detail in the earlier sections, can be summarised as follows:

Male project staff's and local men's biased attitude against women that the latter are good only for household chores and not for outside home activities that require paper work, making major decisions, visiting offices, etc., is one major reason for projects' ineffectiveness to meet women's strategic gender interests. As a result, even when women were involved in project activities they were all in health, hygiene and sanitation related activities, which have been traditionally considered as women's sphere. Such a biased attitude of men against women is the result of the patriarchal culture prevalent in Nepal that gives high values to sons/men over daughters/women in all aspects of life and thus treats the latter as second class citizens. One example that is worth sharing here is that, in this culture, daughters, when they get married, go to the affinal home while sons remain mostly with parents as they are supposed to take care of their parents during the latter's old age, sickness and any other infirmity. This is one of the main reasons why the parental property is inherited by sons, not by daughters, and why

parents prefer to invest in sons providing them with good education, rather than in daughters. All these biases against women, coupled with the lack of education, restricts them from all opportunities, including their effective participation in development activities such as that of water.

In turn, both the girls and sons understand, by the time they reach their adulthood, that they have a completely different future. While girls start to accept that their future is in their affinal home as a loyal wife, daughter-in-law and mother, who is responsible to undertake all household chores as instructed by other male members, especially their husband, and other senior women members, such as their mother-in-law, sons view themselves as the first point of contact with the outside world, as job holders, as breadwinners, and as the principal decision-makers responsible for the survival of the family members.

These reasons have created a wide gap between the knowledge, ability (mainly technical) and administrative and management skills, especially related to doing paper works and dealing with other people, of women and men. In turn, women cannot even think of competing with men, regardless of whether this concerns participating effectively in community level activities or applying for jobs anywhere. Even in cases where some parents decide to educate their daughters, the quality of the schools and colleges where these girls are sent is poorer than where the boys are sent. This means that even the small numbers of so called educated women are not able to compete with a large number of fairly well-educated men counterparts when applying for limited employment, training and other opportunities. These are the reasons why there are small numbers of women in all selected agencies and why almost all of them are in low-paying, non-technical jobs. The gender insensitive policy documents of the Nepali government, and the institutional objectives and strategies, and the project management guidelines of the selected agencies, none of which mentions agencies' focus on meeting any of the women's five strategic gender interests discussed above, are also the results of how men view women in patriarchal societies like that of Nepal.

Such a biased view of men towards women has also led to the lack of women-friendly organisational culture; lack of women staff in general, and at the policy level and in technical positions in particular; and lack of provision for adequate human and capital resources; etc., in all selected agencies. In turn, these gender insensitive institutional policies and practices

coupled with the local men's biased attitude against the local women have led to bypassing the latter in most of the project activities. These biases did not let the project staff and the local men feel that in order for women to participate effectively in project activities an appropriate environment needs to be created. This idea of an appropriate environment implies that women should find some other people sharing their household chores while they are involved in project activities; the projects should allow adequate social preparation time for women to understand properly their new roles and responsibilities; and the projects should create enough opportunities for women to be involved in paid positions, to increase their various skills, to increase their income, to increase their status, to receive equal benefits regardless of the differences in caste, ethnicity, class, etc.; and to increase their decision-making as well as bargaining power. However, because the men in the policy-making and implementation levels in all agencies were so influenced by the patriarchal culture, they never thought of creating such an environment favourable to women.

Along with these reasons about why the selected agencies and projects have not been able to meet women's strategic gender interests in the project communities, the other main reason is their inability to see a connection between women's strategic gender interests such as the changes in the traditional gender division of labour, increase in women's access to and control over income and other resources, and the sustainability of project benefits, women's empowerment, and justice to women.

Another equally important reason is the gender insensitive policy documents of the donors, as already discussed in Chapters 5 and 6, since the national and institutional plans and policies are developed based on the former.

Hence, the important issues to which attention should be paid by the agencies involved in the water sector to improve the situation are: training of women in literacy, skill development, technical components, income generation, etc., to build up their confidence; gender sensitisation activities for the local women and men, and gender training to all agency staff so that both women and men understand the importance of each other's roles in water supplies and share each other's activities; and provision of capital and human resources to invest in GAD activities. Similarly, the other important areas for consideration are: formulation of gender sensitive policy documents; and creation of an environment where women and men of

all categories find space to participate in all aspects of a project, including sharing of benefits and sharing the responsibility of operation and maintenance of water supplies, so that they all become interested in the protection and management of water supplies.

However, because it is the project staff who intermediate between the agency and the local women and men, the translation of the institutional policies into action depends entirely on their level of commitment in terms of their understanding of gender issues in the water sector and allocation of adequate time to work with women. The latter is, however, possible only if the project staff are compensated well for the time that they spend in the field working with women, which is a very difficult task in the Nepalese context due to the latter's lack of proper education, and experience, and the socio-cultural factors surrounding them.

Moreover, because the institutional policies and practices are based on the national and the donors' policies and practices, the latter also need to be gender sensitive. Donors' sensitivity in all aspects, including the need for some extra funds to address GAD issues, is crucial for maintaining gender sensitivity at other levels - institutional and project. The use of the extra funds is mainly for developing human resources, through appropriate training on gender issues at various levels, so that everyone at all levels properly understands the gender issues in the water sector and in development more generally, giving allowances to the field staff for their hard work with women in the field, and meeting the genuine needs and concerns of women at various levels so as to maintain their interest towards the institutions and their activities. The investment on GAD activities might look expensive in the beginning, but, it will turn out to be cost effective in the long run when the project benefits last longer and a mass of human resources, including women, are mentally and psychologically prepared to actively participate in the overall development process. The positive multiplier effects of such human resources, neglected so far, are beyond calculation.

Similarly, at the national level, what is required to change the attitude of both men and women, is to formulate a constitution, legislation, policies and plans that are gender sensitive, to introduce a gender sensitive education system right from the beginning of the school education, to recognise women's work in the national statistics, to make provision for training on gender to all government employees, and to develop some affirmative actions for girls/women to increase their numbers in schools, colleges, government offices, etc. Hence, in

order to help the agencies engaged in the water sector to achieve gender sensitivity at any level, a checklist is presented in Table 7.1 summarising the indicators to be studied or paid due attention at each level in the drinking water sector and the variables to be assessed for each of those indicators.

From the information analysed in this chapter, using the community level framework of women's strategic gender interests suggested in Chapter 3, a number of lessons, related to the relevance of this suggested framework for its future use to study the impact in the water sector, have been learned, which are as follows.

The community level framework of women's strategic gender interests that consists of five useful indicators, discussed in this chapter, has given a very good understanding of the gender issues at the community level of the selected agencies. It can thus be said that these indicators appear to be useful and relevant for consideration in the future when carrying out a similar type of gender analysis at the community level. Nevertheless, the discussions suggest that some of these indicators need further breakdown for this framework to be more realistic, user-friendly and comprehensive. The indicators that need further breakdown are 'women's participation in project activities' and 'women's access to and control over resources'. There is no doubt that the information presented under these two indicators is very useful and gives a clear and comprehensive picture of the status of women in terms of their level of empowerment, as can be seen in the earlier discussions made in this chapter.

However, the researcher felt, at times, some difficulty to separate out the information to be presented under these two indicators. For example, the limitation with the indicator on women's participation is that it deals with two types of participation together - first, women's physical presence in meetings and while performing various other project activities; and second, women's strategic involvement through making decisions by themselves about the project activities. The problem while focusing on these two kinds of participation together is that it can increase the chances of losing useful information for one or the other if there is a lack of equal and serious attention on both these aspects. One can argue here that the first level of participation is not directly related to women's strategic involvement and thus can be ignored.

But, the point is that the first level of participation is a means to achieve women's second level of participation i.e., women's strategic involvement, especially in the rural areas of Nepal, where there are a lot of social and cultural factors inhibiting women's effective participation in project activities. It is only by means of their first level of participation that rural Nepali women can expand their knowledge base, gain more confidence, and get exposure to the development sector, so that they can mentally prepare themselves to fulfil their various strategic interests. This does not, however, mean that the water projects should not look for women's strategic involvement until they are satisfied with women's physical presence in various project activities. Rather the message is that both these levels of women's participation are necessary and thus need to be analysed separately.

Similarly, the indicator on 'women's access to and control over resources' also deals with two types of information - first, women's decision-making power related to the use and control of various project resources, which concerns water resources in this research; and second, women's access to and control over income, since this has appeared as an important indicator of women's empowerment both in the literature and this research. The confusion appears, sometimes, concerning where the activities related with women's decision-making power should fall - whether it should come under the indicator of 'women's participation' or under the indicator of 'women's access to and control over resources'. Hence the researcher feels that these two indicators - women's participation in project activities and women's access to and control over resources - should be split into three to make the analysis of women's strategic gender interests even more clear, precise and user friendly, as follows: i) women's physical presence in project activities, ii) women's participation in decision-making, iii) and women's access to and control over income. These discussions suggest that the community level framework of women's strategic gender interests suggested in this research needs to be expanded for its future use as follows: i) women's physical presence in project activities, ii) women's participation in decision-making, iii) changes in the traditional gender division of labour, iv) women's access to and control over income, v) equity in sharing of benefits, and vi) women's increased status and new development initiatives.

The next chapter summarises the major conclusions derived from the analysis carried out in the earlier chapters of this thesis and some actions for the improvement of gender sensitivity in the drinking water sector.

Table 7.1: Gender Indicators and the Variables to be Measured to bring about Gender Sensitivity at Various Levels in the Drinking Water Sector

Levels	Indicators	Variables to be Measured for Gender Sensitivity
International	Policies and strategies	Types of terminologies used Consideration of women's triple roles Emphasis on women's empowerment
National	Legislation and Acts Development Plans National Policies	Types of terminologies used Respect to women's triple roles Gender sensitive objectives Composition of policy-making bodies Attitudes of policy-makers Presence of Gender unit/person Gender orientation/ training received by policy-makers
Institutional	Policy Formulation and Flow	Composition of policy-making bodies Frequency of meetings between policy-makers and staff Participation of junior staff in policy meetings Gender training received by policy-makers Agencies/partners influencing policy formulation
	Objectives and Strategies	Types of terminologies used Focus on improvement in women's status Focus on changing traditional gender division of labour Aim to increase women's bargaining power Aim to give women more decision-making power Emphasis to bring equity in project benefits
	Personnel Policy	Gender specific recruitment policy Style of advertising vacancy notice Gender balanced interview panel Gender knowledge as a recruitment criterion Types of working facilities for women and men staff
	Organisational Structure	Number of women and men staff in general Number of women and men staff in senior positions Number of women and men staff in technical positions Nature and types of work done by women and men staff Efforts for a gender balanced organisational structure
	Organisational Culture and Management Style	Actors involved in the management of the agency works Roles of each actors in the management process Approach followed in carrying out institutional activities Staff's understanding of gender issues in water supplies Management's understanding of women's triple roles Relationships among the staff with each other Values given to one's hierarchy Power held by women and men People/women-friendly environment Sexual harassment
	Gender Training Provision	Presence of gender training policy Number of women and men staff trained in gender Provision for follow-up gender training
	Capital and Human Resources	Budget allocated for GAD activities Presence of a gender person/unit for GAD activities
	Role of Change Agents	Presence of people willing to see GAD related changes Number of people willing to see GAD related changes Power and responsibility held by the change agents GAD activities undertaken by change agents in the past

	Sharing of Power between Women and Men	Nature of job Position in the hierarchy Level of income Participation in decision-making Presence of peer groups
	External Relationships	Relationships with government agencies Relationships with other similar agencies Degree of autonomy from donors External influence on policy matters
Project	Pre-construction Stage	Presence of women in the need identification team Team's understanding of gender issues in water supplies Process followed in materialising the water project Women's roles in the negotiation process Gender sensitivity in data collection forms Gender knowledge criterion to select NGOs Presence of women in the feasibility study team Provision for baseline survey and gender analysis Team's understanding of gender issues Time spent to collect information Disaggregation of information by sex Formation and composition of water users committee Women's involvement in the selection of technology Women's involvement in the selection of location for tap-stands or tube-wells Selection of women as caretakers/maintenance workers Gender component in training provided to NGO and local men and women Types of people provided training and types of training Gender sensitivity in contract agreements Social mobilisation activities such as gender sensitisation, literacy etc.
	Construction Stage	Composition of construction committee Women's involvement in financial management Women's involvement in the management of materials Division of labour between women and men Types of labourer hired for paid work Wage rates paid to women and men labourers Suitability of construction time for local women and men
	Post-Construction Stage	Provision of women and men caretakers Provision for remuneration to men and women caretakers Availability of spare parts and tools for repair works Collection of water tariff Provision for monitoring project outcomes
Community	Women's Physical Presence in Project Activities	Number of women attending planning meetings Number of women present while forming WUC Number of women in the WUC and their positions Number of women in various other sub-committees Women's involvement in the selection of caretakers Number of women caretakers vs. men caretakers Types of training received by men vs. women Number of women and men receiving various training Women's cash and kind contribution to project work
	Women's Participation in Decision-making	Women's involvement in the negotiation of water project Women's contribution in making decisions in meetings

		Women's roles in the selection of WUC members Process followed in the selection of WUC members Women's roles in the selection of location of tap-stands or tube-wells or water sources and technology Women's roles in carrying out WUC activities Women's roles in the monitoring of project activities Women's decision-making power in household matters Women's involvement in decisions related to agricultural matters Women's involvement in decisions related to household expenditure Women's involvement in decisions related to capital expenditure Women's decision-making power in the community
	Change in the Traditional Gender Division of Labour	Types of work done by women and men in the household Types of person collecting water Change in the use of water before and after the project Saving in women's and men's water hauling time, if any Use of time saved from water hauling
	Change in Women's Access to and Control over Income	Women's and men's involvement in income generating activities Increase in women's income and bargaining power Women and men in paid positions Women and men receiving technical training Wages given to women and men
	Equity in Sharing of Benefits	Types of benefits received by women and men Number of women and men beneficiaries Time spent in collecting water before and after the project Types of people receiving benefits Payment of water tariffs by women and men Provision for subsidies to poor men and women Provision for remuneration to women and men caretakers Condition of tube-wells or tap-stands or water sources Performance of women caretakers vs. men caretakers
	Change in Women's Status and New Development Initiatives	Increase in the self-esteem of women and their number Increase in the confidence of women and their number Improvement in the skills of women and their number Number of women emerged as leaders New development initiatives taken by women and men

8. CONCLUSIONS

This research 'Gender Issues in the Management of Water Projects in Nepal' was carried out with four major objectives which are: i) to identify gender issues at the international and national policy levels; ii) to examine gender issues at the institutional and the project management levels; iii) to assess the outcomes of the selected drinking water projects in relation to meeting women's strategic gender interests at the community level; and iv) to draw up some conclusions and recommendations to enhance gender sensitivity at all these levels in the drinking water sector. Because none of the available GAD frameworks is free of criticisms, a new conceptual framework, which consists of five indicators, was developed for application in this research in the water sector considering a number of factors as discussed in Chapter 3. The five indicators of the new conceptual framework are: women's participation in project activities, changes in the traditional gender division of labour, women's access to and control over resources, equity in sharing of benefits, and women's increased status and consequent involvement in new development initiatives.

The first objective, of identifying gender issues at the international and national policy levels was met by analysing the water policies of some international donors such as, the World Bank, the ADB, WaterAid and FINNIDA, which are the major funders in the water sector in Nepal, and of the Nepali government, as presented in Chapter 5. The second objective, of examining gender issues at the institutional and the project management levels, was fulfilled by assessing the institutional policies and practices of the selected agencies namely, NEWAH, RWSSP and FRWSSSP, which have exclusive focus in water supplies in Nepal, as discussed in Chapter 6 following the institutional framework suggested in Chapter 3. Likewise, the third objective was achieved by assessing the outcomes of the four drinking water projects of the selected agencies in meeting women's strategic gender interests, as presented in Chapter 7. The analysis made in Chapter 7 has followed the community framework suggested in Chapter 3 to investigate whether the suggested framework can be applied in planning and analysing gender sensitivity in drinking water projects at the community level. Finally, based on the discussions, analyses and findings of Chapters 3-7, some conclusions and recommendations, related both to the relevance of the frameworks suggested in Chapter 3 and used in Chapters 6 and 7, and the effectiveness of the selected

drinking water projects in meeting strategic gender interests of women in their project communities, as discussed in Chapter 7, have been drawn up so as to meet the fourth objective of this research. These are presented in the following section.

8.1 Conclusions

- One major conclusion of this research, which is based on an extensive review of literature and the outcomes of field studies for this research, is that meeting women's strategic gender interests such as involving women meaningfully in project activities, shifting the traditional gender division of labour from women to men, increasing women's bargaining power with higher income, bringing equality in the distribution of project benefits and increasing women's status can lead not only to sustainability of project benefits but also to many other advantages, as discussed in a greater detail in Chapter 7. However, the analysis made in Chapter 7 also shows that the drinking water projects in Nepal are at present concerned with meeting only the practical needs of women and men but not with women's strategic gender interests. This finding supports the hypothesis of this research.

- In view of the gender analysis of the institutions selected for this research carried out in Chapter 6, it can also be concluded that the eight indicators used for this purpose appear to be useful for consideration while undertaking gender analysis at the institutional level in the water sector.

  Nevertheless, the discussions in Sections 6.3 suggest that two more indicators should be added, namely 'sharing of power between women and men staff' and 'relationships with external agencies' in the suggested framework so as to make it more realistic, user-friendly and comprehensive. Though these indicators have been implicitly covered under other indicators, the discussions suggest that in view of the importance of these two factors in shaping the gender sensitivity of an agency, it will be useful if these two are treated as two separate indicators. Hence, the suggested framework now includes ten indicators as follows instead of the eight indicators suggested earlier in Chapters 3 and 6: policy formulating mechanisms, objectives and strategies, personnel policies, organisational structure, provision for gender training, organisational culture and management style, resource (both human and capital) commitment, presence of change

agents and their roles, sharing of power between women and men staff, and relationships with external agencies.

- In view of the analysis made in Chapter 7, it can also be concluded that the suggested framework, which consists of five major indicators of women's strategic gender interests - women's participation in project activities, changes in the traditional gender division of labour, women's access to and control over resources, equity in sharing of benefits, and women's increased status - appears to be useful in planning and analysing the sensitivity of drinking water projects in meeting women's strategic gender interests, and hence, enhancing the likelihood of sustainable practical benefits.

Nonetheless, the discussions made in Section 7.6 suggest that the two indicators 'women's participation in project activities' and 'women's access to and control over resources' should be split into three indicators as follows: 'women's physical presence in project activities', 'women's participation in decision-making' and 'women's access to and control over income'. The major reason for this modification, as presented in Section 7.6, is an overlap between the first two indicators 'women's participation in project activities' and 'women's access to and control over resources', especially in terms of information related to women's decision-making power. The split of these two indicators into three can, on the other hand, avoid the chances of collecting the same information under both of these categories, and make the framework more useful, realistic, and user-friendly. Hence, the suggested community framework will now include six indicators as follows instead of the five indicators suggested in Chapters 3 and 7: women's physical presence in project activities, women's participation in decision-making, changes in the traditional gender division of labour, women's access to and control over income, equity in sharing of benefits, and women's increased status and new development initiatives.

The final indicators for a gender analysis at institutional and community levels for future use in the water sector can thus be as follows:

Indicators for Gender Analysis at Institutional Level	Indicators for Gender Analysis at Community Level
• Policy formulating mechanisms • Objectives and strategies • Personnel policy • Organisational structure • Organisational culture and management style • Provision for gender training • Provision for human and capital resources • Role of change agents, • Sharing of power between women and men • Relationships with external agencies	• Women's physical presence in project activities • Women's participation in decision-making • Changes in the traditional gender division of labour • Women's access to and control over income • Equity in sharing of benefits • Women's increased status

- In spite of some limitations of the qualitative research methods such as PRA, it can be concluded on the basis of the discussions made in Section 4.8 that this is a useful, appropriate and effective method in research like this, which is process oriented, exploratory, and which deals with sensitive issues such as gender in male dominant societies such as that of Nepal, and thus demands techniques which are informal as well as flexible. However, the researchers need to be well aware of the limitations of these methods prior to initiating the field work so that they can be effectively resolved without resulting in any serious complications during the field work.

- It can also be concluded from the analyses made in Chapters 5-7 that there is a linkage between gender sensitivity in water policies at international and national levels and drinking water projects' effectiveness in meeting women's strategic gender interests at the community level. However, the drinking water policies at these levels, at present, are gender weak, as discussed in Chapter 5, resulting in the failure of the selected drinking water projects in meeting women's strategic gender interests at the community level, as discussed in Chapter 7.

- Similarly, the analyses made in Chapters 6 and 7 show that the outcomes of the drinking water projects cannot be treated in isolation from their institutional environment. However, the policies and practices of the agencies involved in the drinking water sector at present are gender insensitive as found in Chapter 6, and thus the projects formulated under such gender insensitive policies and practices failed to meet women's strategic gender interests at the community level, as seen in Chapter 7.

- Another conclusion that can be drawn from the analyses made in the earlier chapters is that the notion of the water agencies, that addressing the strategic interests of women is outside their purview, is not valid. This is because the fulfilment of such interests increases the chances of the sustainability of water supplies, which in the long run turn out to be more cost effective, with positive multiplier effects upon the overall development process of the country.

- Based on the overall findings of this research and the conclusions drawn above one final conclusion that can be made in this research is that the drinking water sector at all levels - international, national, institutional, and project - is still only marginally gender sensitive since only a few small changes are taking place in these levels. This is in spite of an emphasis that gender should be considered as an important component in development for almost 20 years. For example, while the sector policies of some donors are completely gender insensitive, the sector policies of others, who have partially addressed this issue, fail to deal with mechanisms that help to translate these more gender aware policies into national, institutional and other levels. The lack of focus of these donors on 'how' aspects of women's meaningful inclusion in the water sector has led to their marginalisation in the sector at all levels. Similarly, the lack of gender-sensitivity in the national policies, institutional policies and practices, and project management guidelines clearly indicates that gender is still not a priority at these levels. This has promoted a culture at all these levels where women consider themselves as 'second class citizens', who are needed to assist men but not to look for assistance from them. The implication of such gender insensitivity at all these levels is that there has been no improvement in the status of women at the community level, either in terms of meeting their practical needs or their strategic interests. In fact, in some cases, their situation has even deteriorated from before after getting improved water services that were planned and designed by gender-unaware male technicians.

This final conclusion indicates the need for a lot of effort and commitment to be made by donors, planners, policy-makers, managers, field workers, at these levels to make their programmes able to meet women's strategic gender interests together with meeting people's practical needs.

In view of these theoretical and academic conclusions, the following suggestions are offered to improve gender sensitivity in the drinking water sector, whilst a detailed list of action plans that can be considered to improve gender sensitivity in the water sector at each level is presented in Appendix 8:

- The donors and the international community in the water sector need to analyse the gender implications, especially the 'how' aspects of all their water policies, such as how women's strategic participation can be increased, how poor women, especially those from female-headed households can meet the capital as well as the operation and maintenance costs, how the private sector can be made accountable towards protecting and meeting the needs and interests of poor women and men etc. before asking their partner governments and NGOs to follow them.

- The water legislation, development plans and water policies of the national governments need to emphasise the importance of addressing women's strategic gender interests. The gender implications of each water policy need to be properly analysed since the focus on women's strategic involvement can lead not only to the sustainability of water supplies but also to overall social development. Because the other agencies working in the water sector have to follow the national guidelines, the clarity in those policies can ensure that the drinking water projects implemented by them are gender sensitive.

- Because the policies and practices of the agencies engaged in the water sector determine the extent to which their water projects can meet women's strategic gender interests at the community level, these need to be gender focused.

- One key strategy that appears to be instrumental in making institutional policies and practices gender sensitive at all levels - international to project/community - is emphasis on employing more women at the policy level and providing gender orientation to all agency staff. Since increasing the number of qualified women staff takes a long time, the gender orientation to men staff should be an immediate concern of the water agencies so that the latter can initiate the process of addressing gender issues in the agency work, even in the absence of adequate numbers of women staff.

- The other fundamental issue that can help to achieve equality and to balance power relationships between women and men concerns making a conducive environment where girls (women) together with boys (men) can have equal access both to education at all levels - schools, colleges and universities - and to all sectors, including civil engineering, and to family property which they can use for various purposes, such as educating daughters together with sons, contesting elections, etc.

8.2 Future Work

The findings of this research and those of other similar work show that the drinking water sector in Nepal is quite weak in terms of gender sensitivity at all levels - international to community. This indicates that there is a lot to be done to make this sector more gender sensitive. To initiate the process, some broader recommendations have been proposed in the previous section while detailed action plans for different levels are presented in Appendix 8. Though some of these recommendations are specific to Nepal many of them can be applied to other situations. This research has uncovered many issues that need to be considered to make the water sector gender sensitive at institutional, project and community levels. However, because the analysis made at the national and international levels was based mainly on secondary sources the same level of information could not be generated at these levels. Hence, it will be useful to find out, through primary information, why this situation exists and what factors are blocking these levels from becoming more gender sensitive.

It might also be useful to do some more research at the institutional level to find out if there are gender issues other than those disclosed by this research. Since this research was carried out at the request of an external donor and not at the request of the institutions studied, this may have resulted in some of the key issues in those institutions remaining unexplored. Therefore, such research might lead to finding out other deeply-rooted gender issues that are impeding them and their projects from being more gender responsive in their activities. Finally, it is also essential to mention here that even within the broader categorisation of women and men there are various other categories created by caste, class, age, ethnicity, etc. Though this research has tried to uncover some of such differences even amongst women it was not possible in this research to go into depth due to various constraints such as time, resources and the broader coverage - four projects and three agencies. Therefore, it will be

useful to undertake more research focusing on which women have been participating in project activities, which women are benefiting, which women have received higher status, and why is it so, etc., using the framework that has been suggested in this research.

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APPENDIX 1

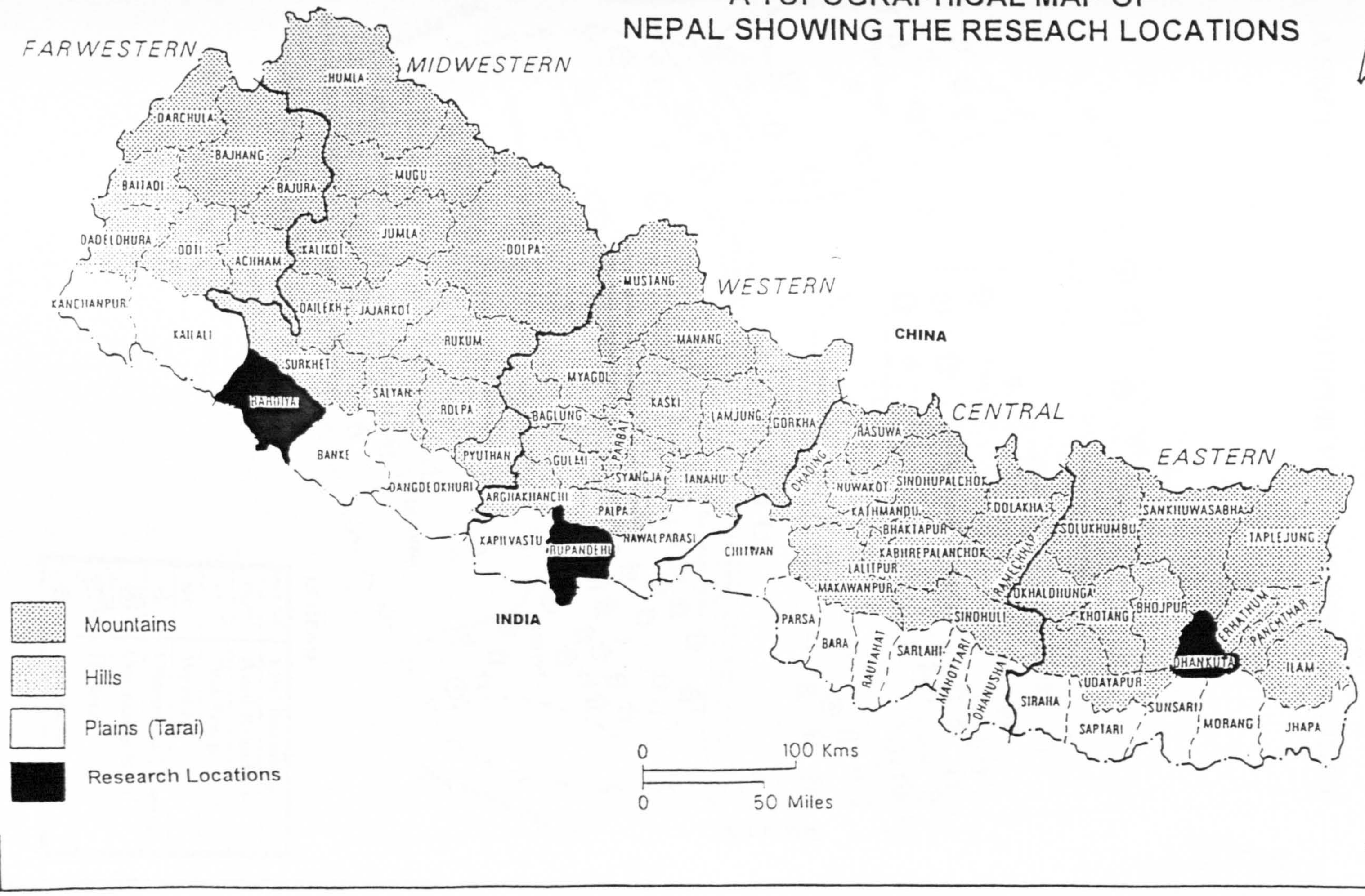
Global Trends and Initiatives on Drinking Water and Their Outcomes

Year	Major International Events Related to Water and Their Outcomes
1975	United Nations (UN) Conference on Women in Mexico: Women's role in water highlighted
1976	UN Conference on Human Settlements, HABITAT in Vancouver: Safe water to all by 1990
1977	UN Conference in Mar del Plata, Argentina: Decision to declare 1981-90 as International Drinking Water Supply and Sanitation Decade (IDWSSD)
1978	UN Conference in Kazakhstan: Water Supply and Sanitation (WSS) appreciated as essential components of primary health care
1980	UN officially launched IDWSSD on November 10: A Steering Committee (SC) formed
1982	Ninth meeting of the SC formed an Action Oriented Inter-Agency Task Force for women in WSS
1983	Tenth and eleventh meeting of SC prepared a strategy paper to promote women's role in WSS
1985	IDWSSD results found not satisfactory: one of the reasons was women's low participation
1988	External Support Agencies (ESA) Collaborative Council formed to address shortcomings in WSS
1990	Global Consultation Forum held in New Delhi set out four basic principles including the effective role of women in WSS; this forum also changed the name of ESA Collaborative Council to Water Supply and Sanitation Collaborative Council (WSSCC)
1991	WSSCC's meeting held in Oslo focused on gender and sustainability to improve WSS planning
1992	Dublin Conference on Water and the Environment in Ireland set out four principles related to water: one of the principles was women's effective participation in WSS; Dublin principles incorporated in Agenda 21 Chapter 18 of the Earth Summit held in Rio de Janeiro
1993	Emphasis on Dublin and Rio Principles by WSSCC Rabat Global Forum, International Conference on Environmentally Sustainable Development, World Bank Policy Paper on Water Resources; UN Declared March 22 as the World Water Day
1994	Ministerial Conference on WSS, Noordwijk, Netherlands, Development Action Committee (DAC) Meeting on Water Resources Management, Global Conference on the Sustainable Development of Small Island Developing States, Bridgetown, Barbados

1995	The World Summit for Social Development in Copenhagen
1996	UN Conference on Human Settlements (Habitat II) at Istanbul in June; World Food Summit in Rome in November; formation of Global Water Partnership (GWP) Network and World Water Council (WWC) - Water policy think tank to discuss about WSS
1997	Water and sustainable development focused on Second Earth Summit and Fifth session of UN Commission on Sustainable Development, both held in New York
1998	Focus on water and sustainable development continued in the Sixth session of UN Commission on Sustainable Development held in New York

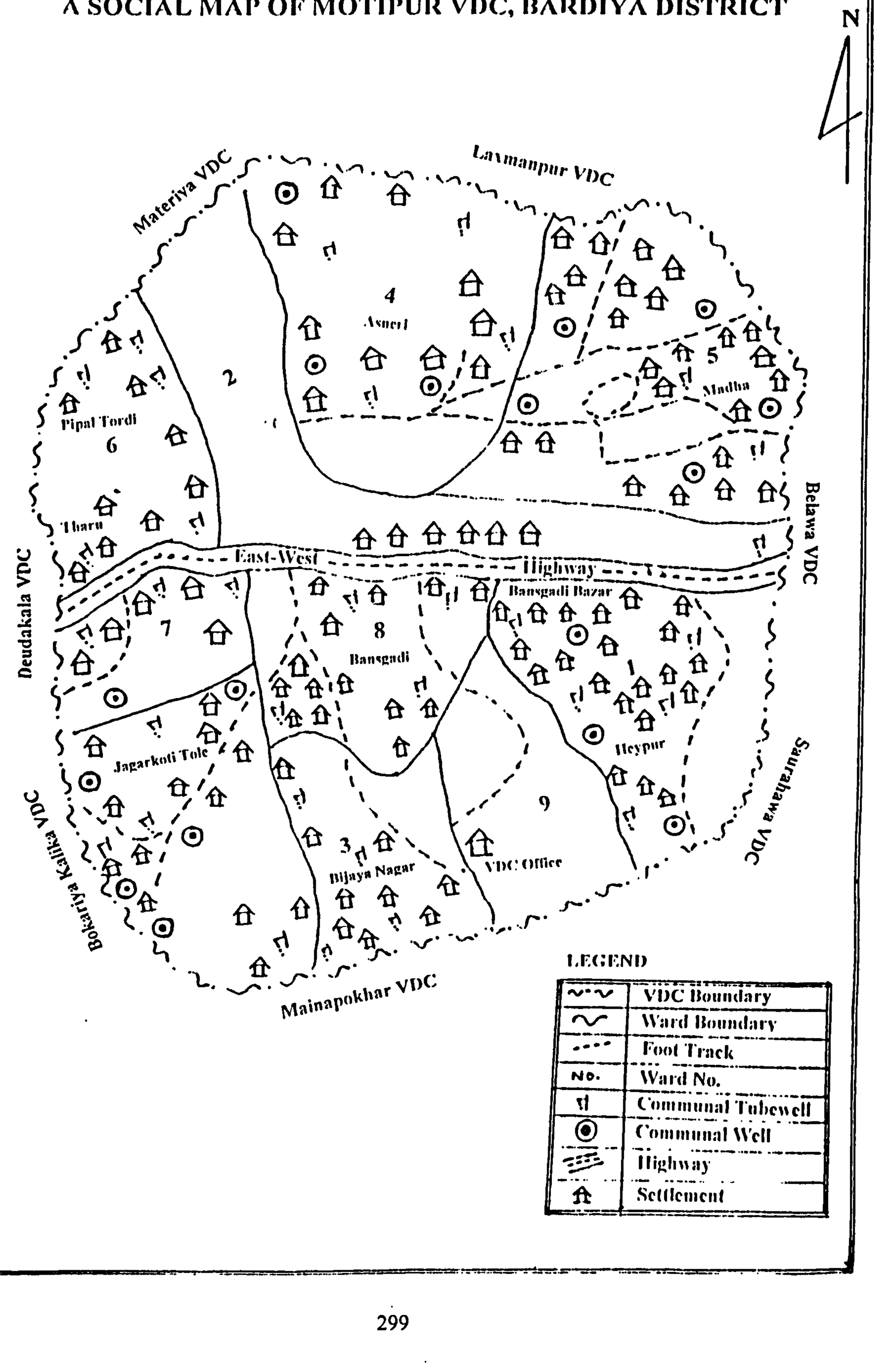
APPENDIX 2

A TOPOGRAPHICAL MAP OF NEPAL SHOWING THE RESEACH LOCATIONS



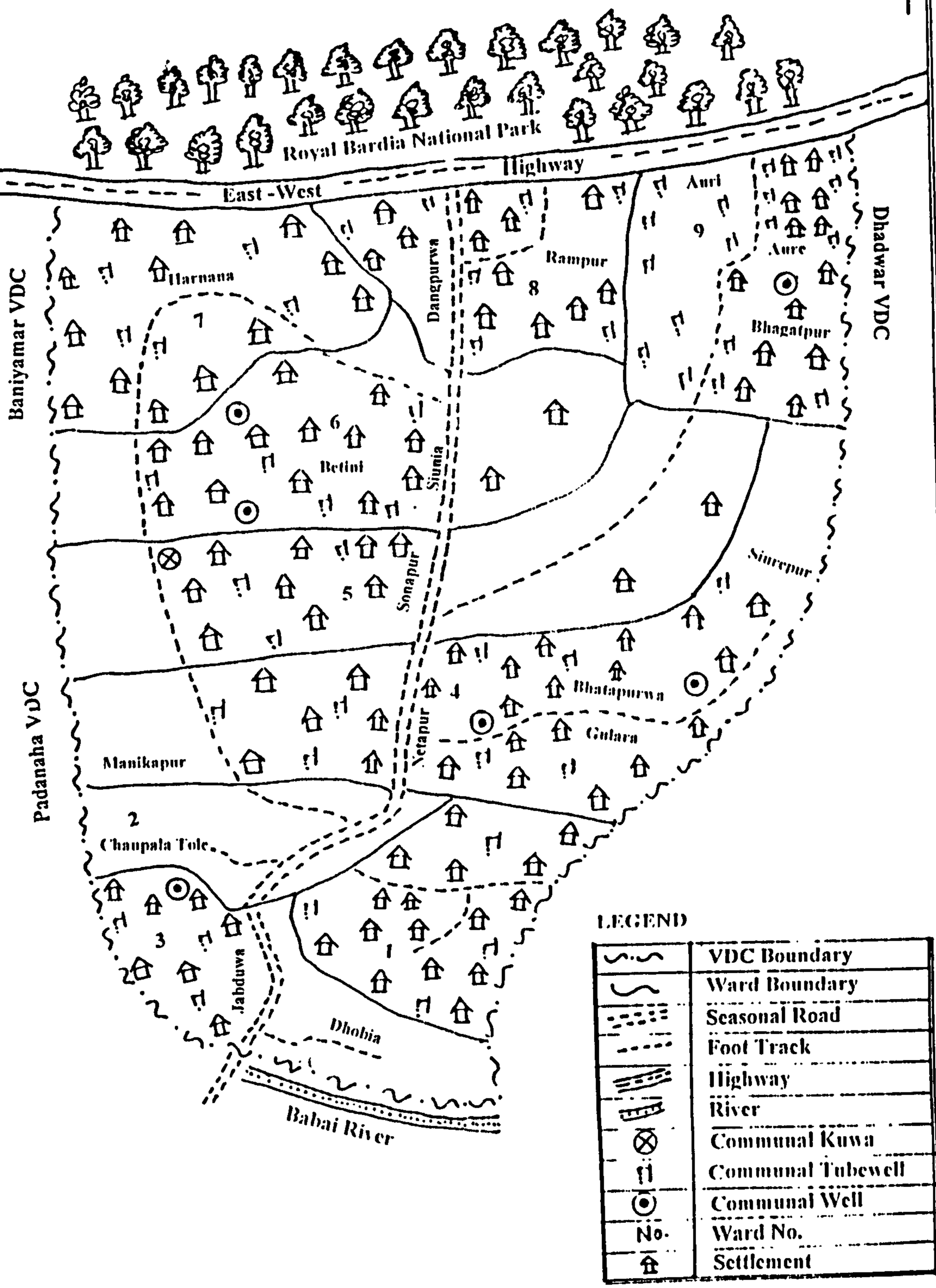
APPENDIX 2

A SOCIAL MAP OF MOTIPUR VDC, BARDIYA DISTRICT



APPENDIX 2

A SOCIAL MAP OF MAGARAGADHI VDC BARDIYA DISTRICT

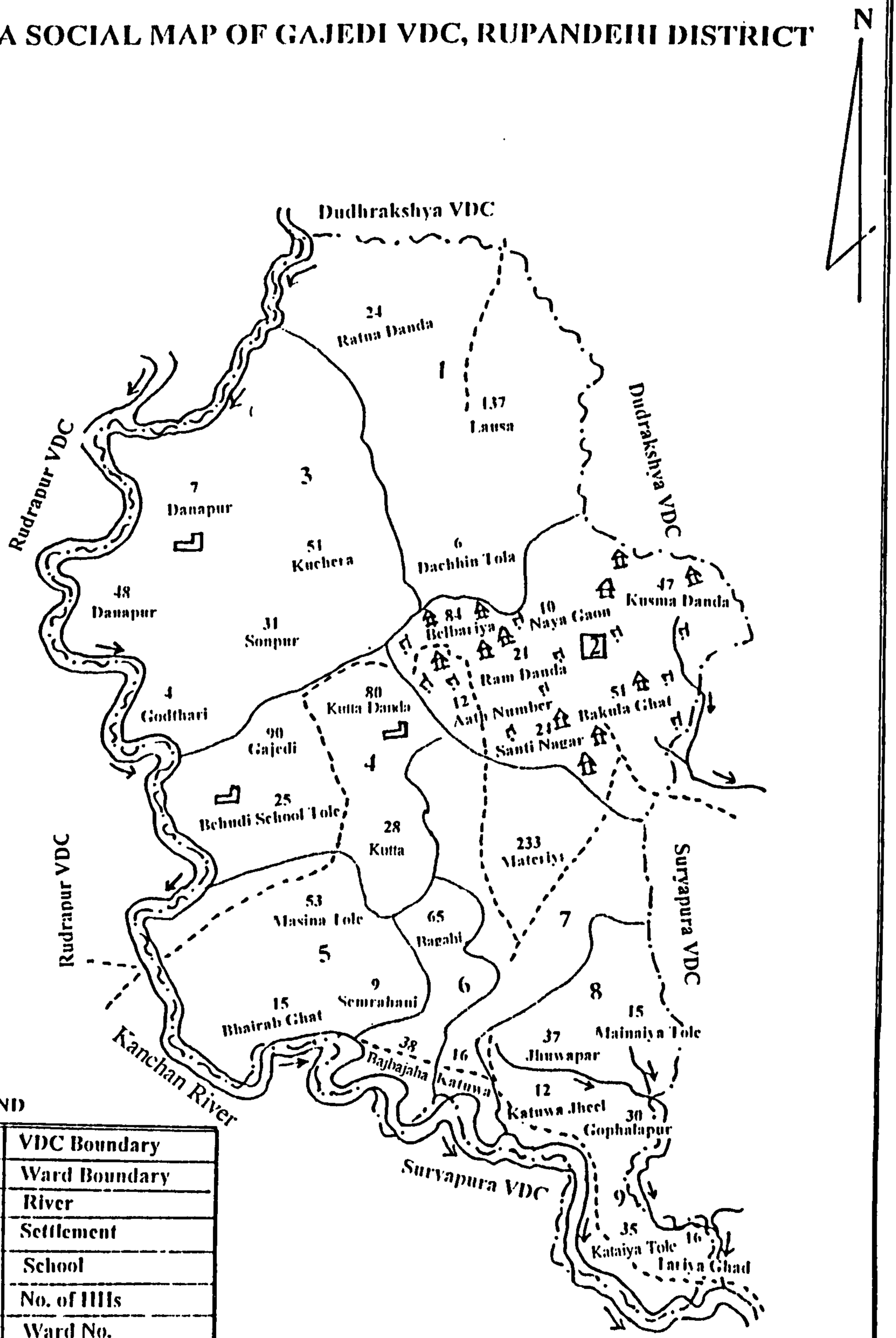


LEGEND

	VDC Boundary
	Ward Boundary
	Seasonal Road
	Foot Track
	Highway
	River
⊗	Communal Kuwa
tl	Communal Tubewell
⊙	Communal Well
No.	Ward No.
	Settlement

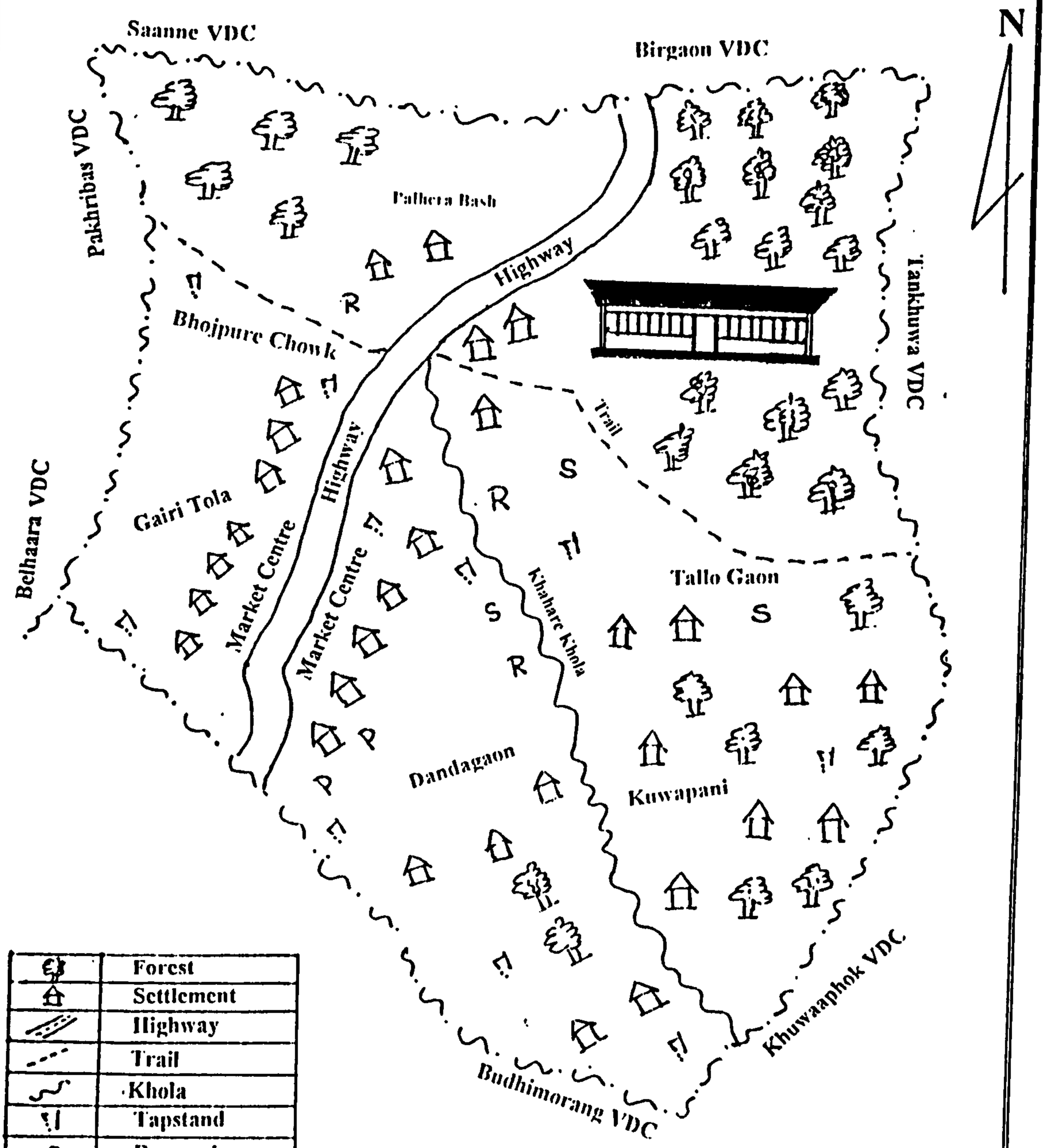
APPENDIX 2

A SOCIAL MAP OF GAJEDI VDC, RUPANDEHI DISTRICT



APPENDIX 2

A SOCIAL MAP OF HILE, DHANKUTA DISTRICT



APPENDIX 3

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Ms. Shanta G.C., Belbhariya, Ward 2, Gajedi, Rupandehi
Ms. Saraswati Subedi, Belbhariya, Ward 2, Gajedi, Rupandehi
Ms. Laxmi Kunwar, Belbhariya, Ward 2, Gajedi, Rupandehi
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Mr. Nirmal Tuladhar, Engineer, Department of Water Supply and Sewerage (DWSS)
Mr. Arun Ranjitkar, Director General (DG), DWSS
Mr. Murari Lal Chauhdari, Deputy Director General (DDG), DWSS
Mr. Dinesh Chandra Pyakurel, Acting Special Secretary, MHPP/Former DG, DWSS
Mr. Shree Ram Shrestha, Joint Secretary, MHPP/Former DDG, DWSS
Mr. Sohan Sundar Shrestha, Project Manager, FRWSSSP, DWSS
Mr. Suman Sharma, Deputy Project Co-ordinator, FRWSSSP/DWSS
Dr. Vijaya Shrestha, Team Leader, Community Development Package, FRWSSSP/DWSS
Mr. Nawal K. Mishra, Chief/Environment and Sanitation Division/Former Chief/CHRDU
Ms. Nil Keshari Shakya, Director, Central Development Region, DWSS
Ms. Srijana Shakya, Draftwoman, DWSS
Ms. Pramila Bajracharya, Asst. Engineer, DWSS
Ms. Ajita Regmi, Sociologist, DWSS
Ms. Meera Joshi, Engineer, DWSS
Ms. Yojana K. C., Asst. Engineer, DWSS
Mr. Mingma Sherpa, Junior Engineer, Dhankuta Municipality, Dhankuta
Mr. Dammar Singh, DDC, Dhankuta
Mr. Setu Lal Tamang, WSST, DWSO, Dhankuta
Mr. Ram Prakash Satara, Overseer, DWSO, Dhankuta
Mr. Rajiv Rimal, Overseer, DWSO/Regional Directorate, Dhankuta
Mr. Kameswor Prashad Singh, DWSO, Dhankuta
Mr. Amrit B. B. K., Water Supply and Sanitation Technician (WSST), DWSO, Dhankuta
Ms. Shanta Mishra, Woman Worker, DWSO, Dhankuta
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Mr. Pradip Lal Karna, Engineer, RPMO, Itahari
Mr. Mishri Prasad Shrestha, Consultant, RPMO, Itahari
Mr. Ashok Parajuli, Management Consultant, RPMO, Itahari
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Mr. Fadendra Pathak, Village Maintenance Worker (VMW), Hile, Dhankuta
Mr. Prem Tamang, VMW, Hile, Dhankuta
Mr. Lal Chand Tamang, Key Informant, Hile, Dhankuta
Ms. Maiya Khadka, Member/Female Health Volunteer (FHV), WUC, Hile, Dhankuta
Ms. Pramila Tamang, Motivator, WUC, Hile, Dhankuta
Mr. Bhakta Bdr. Lama, Informant, Bhojpure Chowk, Hile, Dhankuta
Mr. Ram Bdr. Tamang, Informant, Bhojpure Chowk, Hile, Dhankuta
Mr. Dal Bdr. Gurung, Informant, Bhojpure Chowk, Hile, Dhankuta
Mr. Thek Nath Bhandari, Informant, Bhojpure Chowk, Hile, Dhankuta

Mr. Buddhi Man Tamang, Informant, Dandagaon, Hile, Dhankuta
Mr. Pashang Tamang, Informant, Dandagaon, Hile, Dhankuta
Mr. Dhan Man Rai, Informant, Dandagaon, Hile, Dhankuta
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Mr. Indra Titung, Member, WUC, Hile, Dhankuta
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Mr. Ganesh Bista, Chairperson/Ward 1, Member, WUC, Hile, Dhankuta
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Ms. Kamala Sherpa, Gairi Tola, Hile, Dhankuta
Ms. Phul Maya Tamang, Gairi Tola, Hile, Dhankuta
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Ms. Shakh Maya Rai, Gairi Tola, Hile, Dhankuta
Ms. Hari Maya Tamang, Gairi Tola, Hile, Dhankuta
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Ms. Dil Kumari Rai, Kuwapani, Hile, Dhankuta
Ms. Pasang Lama, Kuwapani, Hile, Dhankuta

Notes:

CHRDU	Central Human Resources Development Unit
FINNIDA	Finnish International Development Agency
FRWSSSP	Fourth Rural Water Supply and Sanitation Sector Project
MHPP	Ministry of Housing and Physical Planning
MWDR	Mid-Western Development Region
NEWAH	Nepal Water for Health
RWSSP	Rural Water Supply and Sanitation Project

APPENDIX 4

Form # 1

A Checklist for examination of Gender Issues in the Management of Water Projects in Nepal
Institute of Irrigation and Development Studies/University of Southampton/UK
To be administered at Institutional Level
1997/98

A. BACKGROUND INFORMATION

* Name of Agency:.....
* Location:.....
* Name of Key Informants and Their Sex:.....

B. POLICY LEVEL ISSUES: (To be explored with development practitioners and policy makers for gender sensitivity in the sector strategies at international and national levels)

* **International Level:** What is the gender sensitivity in the sector strategies of major donors such as, the World Bank, Asian Development Bank, FINNIDA and WaterAid, in water sector in Nepal? What could be the reasons if they are not gender sensitive? What impacts can they have on the policies of the government of Nepal and other partners?

* **National Level:** What is the role of the government and women in water supplies in Nepal? What is the general gender situation in Nepal? How many women engineers are being produced every year in Nepal? Where are they being absorbed? How can their numbers be increased to have more women in the water sector so that the needs and interests of community women can be protected well?

* What is the gender sensitivity in the country's legislation - Water Resources Act 1992 and Water Resources Regulation 1993 and 1998 - and the National Water Supply Sector Policy 1996? What could be the reasons for lack of gender sensitivity in any of these policies or Acts? Who makes the legislation and how is it externally or internally influenced? What is women's representation in various policy-making bodies such as the Parliament, National Planning Commission, District Development Committee, Village Development Committee? What do you think about increasing women's participation in these bodies along with users committees and how can it be done (in terms of changing men's attitude at all these levels)?

* **Institutional Level**: Some general information about the agency such as the duration of involvement in water supplies, coverage, focus in managing water supplies, types of activities implemented so far, types and number of beneficiaries, if possible etc.) then some specific information as follows. What are the overall goals, objectives and strategies of the agency in relation to water supplies? What is the gender sensitivity in those goals and objectives? How are those objectives and strategies developed?

* How are institutional policies formulated? Who of the internal and the external actors influence the policy? What is the representation of women and men in the policy-making bodies? Is there any chance of increasing the number of women and lower level's participation in such bodies to ensure that women's interests will be well protected? Are all the staff, including women, informed of the policies or the major decisions? Is there any mechanism of receiving feedback from the employees?

* What is the staff recruitment policy of the institution? What facilities are the staff being provided by the agency such as maternity leave, child-care, no overtime, flexible working hours for women to cope with their multiple roles? Are men and women employees happy with the institution in terms of salary, compatibility of tasks assigned vs. ability, career development etc.? What is the staff turnover by sex in the last five years?

* What is the organisational structure? How many men and women staff are there at the decision-making level and the support level as well as in the technical sector and soft-sector? What types of activities are these women and men undertaking? **(If there is a clear division between women and men staff in terms of their activities and positions find out the reasons for them.)** Are there any attempts made by the management to break the traditional gender division of labour among its women and men employees?

* What is the general view (management style) of the institution in relation to water resources management - target in terms of number and coverage vs. quality? What approach is the institution adopting in the management of water supplies - community management through formation of WUC, involvement of both men and women in the WUC, use of contractor, use of NGO, agency's own role as a provider or a facilitator, selection of projects and the technical and social criteria followed for their selection? Can the agency approach influence the policy of the partners working in this sector (e.g. government (DWSS), NGOs, INGOs or any other bilateral or multi-lateral projects), how?

* What kind of culture does the institution have in terms of its understanding of gender issues in water management, gender division of labour, attitude towards women's role and contribution in the overall development as well as water supplies, frequency of interaction between the management and the other staff and between women and men staff, whether women feel comfortable in the present environment, possession of power and authority by women and men, sexual harassment? How do the men staff view the GAD concept in water supplies for women's empowerment?

* Is there any provision for training on gender issues to all staff, junior and senior, technical and non-technical, involved in programme planning and policy-making and implementation, as well as to people in the project communities to make them feel the role and the contribution that women make to this sector? How many of men and women staff have received training on gender issues? Is training planned as a regular activity? Are there provisions for follow up activities after training?

* What is the provision for human and capital resources for promoting gender activities? Are there specific persons, or units or cells to ensure that gender is on agenda in all activities? Is provision made for adequate budget for promoting GAD activities?

* Are there any people who want to see GAD changes taking place in the agency? Who are these people and what is their position in the agency? Have they already initiated certain GAD activities? What do they think about the factors blocking gender to be on agenda? How can they be mitigated?

* Does the agency have any project management guidelines - are they gender specific? What is the general opinion of the agency about cost-recovery concepts? How did you decide the 'x' amount to be contributed by the community to meet the capital as well as the operation and maintenance costs? Have you thought of its effects on poor households, especially those from female-headed? Do you have any provision for subsidies? If not, how will such people benefit from your projects? What is the general pattern of the composition of WUCs in your projects - women only, men only, mixed - please explain the positive and negative sides of these combinations? What policy does the institution have in regard to local capacity building of men and women? What will be your responsibilities once you hand over the projects to the local WUCs? Where will the WUCs go if there is a major breakdown in their system?

* Has not the involvement of women in various project activities increased their work burden since this is all a voluntary job? What does the agency think of gender issues at community level water supplies? Does women's empowerment as an activity or goal fall anywhere in the agency work? Has the agency ensured that the project staff spend more time in the field than before since the agency objective is to promote women's participation? Is the agency concerned of meeting women's strategic gender interests such as increase in women' participation in project activities, change in the traditional gender division of labour, increase in women's access to and control over resources, equity and sustainability of project benefits, and improvement in women's status?

Form # 2

A Checklist for examination of Gender Issues in the Management of Water Projects in Nepal

Institute of Irrigation and Development Studies/University of Southampton/UK
To be administered at Project Level
1997/98

A. BACKGROUND INFORMATION

* Name of Country/Region:.....
* Name of District:.....
* Name of Village/Community:.....
* Name of Project/Scheme:.....
*Names of Project Officials/Key Informants and Their Sex.....

B. PRE-CONSTRUCTION STAGE

(Do not ask the questions in box if the need for the project was decided by the community itself).

* How was the project introduced to the community? How was the meeting called? How many women and men were present in the meeting? What arrangement was made to ensure women's as well as men's participation in the meeting? How did the project ensure that women share their views in the meeting? Was there any separate meeting held with women? If so, why, how did it go and what was the result of the meeting? Was the meeting held in a place and time which were convenient for women to attend?

* Did the community agree with the proposed project and its objectives? Were both men and women consulted to share their views on the project? Were men's and women's needs and priorities well-assessed before implementing the project? What were the basic differences between those two groups? What contributions could each of them offer to make from their side? What benefits did they expect of the project activities in their community?

* Was any baseline study conducted to find out the technical as well as the social data required by the project? What kind of data were collected-inventory of water resources, water availability in terms of quantity and quality, use of water for domestic and other purposes etc., demographic and economic data by gender, data on men's and women's organisations, data on patterns of decision making and representation of men and women in community leadership, data on men's and women's knowledge and management of water resources? Who were involved in conducting the baseline study?

* How was this project identified? Were the procedure followed in the identification project similar to what has been suggested in the project guidelines? Who were involved in the identification process, yourself, NGO, local community etc.? How many women and men were in this team and what was their background? Did they have adequate knowledge on gender issues in water supplies? Did they have training on gender issues?

* How did the project take into consideration the differences in needs and priorities of women and men? What factors were considered to encourage and support men as well as women to take part in all important project activities--planning and decision making, training and skill development, taking up leadership and management roles etc.? How did the project ensure that both men and women can benefit from it and what were the benefits?

* What strategies and methods were considered to address constraints to women's participation? Was the project prepared to provide adequate female personnel at all levels to ensure that women can be reached directly, and that gender issues are addressed appropriately? Did the project people visit the project site before planning the project? What information was collected during the visit? Was there any attempt to disaggregate the collected information by gender? If yes, please explain the type of information collected during this stage.

* How were the planning meetings conducted? How was the participation of men and women in the planning meetings? Was any special effort made to increase women's attendance as well as participation in the meeting? Did you have to hold any separate meetings only with women? What were the basic differences between the first meeting and the following meetings in terms of women's attendance and expression in the discussion?

* Was any WUC formed while planning the project activities? If yes, how many women and men were present while forming it? What are the rights and responsibilities of this WUC? How many women and men members are there in the WUC? How were the women and men WUC member selected? What factors were considered in their selection? How have the WUC activities been divided between women and men members? What efforts were made to increase women's participation in planning stage?

* How did the project ensure that the technology to be used will satisfy the needs of all groups of people including women in the community? How did the project ensure the men and women that the design and the location of the tube-wells or tap-stands will be as per their specific interests? Were women from all spectra consulted while finalising the design of the project (siting and location of water sources, wells, hand pumps and their platforms, toilets etc.) and are they happy? Did the project cover all the households in the project area? If not, why and what was the reactions of these households? Is there any other plan to include these households in the future?

* What financial arrangement was made for the project? What contribution did the project demand from the community for the initial phase and the operation and maintenance phase? How was poor people's, especially women from female-headed households, reaction to this demand? How long did it take them to collect their contribution? Was the contribution collected equally from all? Was everyone happy with this arrangement?

* Was any training thought of for men and women in the community? If yes, note information on the type of training, number proposed, venue, duration and time. Are the trainees given anything during the training period? Are any of the NGO staff or the WUC staff or any other person paid remuneration or salary for their involvement in the project?

C. CONSTRUCTION STAGE

* How were the implementing institutions selected? What was the role of each partner/institution - project, NGO, community, contractor, WUC? When was the construction started? Was the time appropriate for the local people? How long did it take to complete the project? How many tube-wells or tap-stands were installed and where? Were there any reactions from the local women and men while installing the tube-wells? Did you find them all satisfied with the locations where the tube-wells or tap-stands have been located? What were the estimated number of villagers, households, population covered by the project?

* What was the total cost of the project? How much was the contribution from the community? Was there any problem in mobilising local contribution? If yes, how were they resolved? Who handled the money? What was the role of WUC members especially women in handling financial aspects? Who purchased the construction materials? Who supervised the purchasing and collection of these materials?

* How was the activity schedule planned? What were the activities that men and women were involved in? Was any committee formed to monitor the construction work? How many members were there in the committee-men vs. women? What responsibilities were taken up by men and women members of the committee? What arrangement had you made to involve women actively in this stage - what and how?

D. POST-CONSTRUCTION STAGE

* Has the project been handed over to the WUC - when? Are both men and women members of the WUC and the community familiar with the operation and maintenance system? Who is responsible for this activity? Are there any caretakers or maintenance workers recruited for this activity? How many of them are women? How were they selected? Are they paid? What arrangement was made to actively involve women along with men at this stage? Was anyone given training on operation and maintenance of tube-wells or tap-stands? Who are they- men and women? What was the duration, venue and timing of the training? Were the trainees provided with any allowance for the training period? How long was the training for?

* What financial arrangement from the community and the project made for the operation and maintenance of tube-wells or tap-stands? Is there a system of collecting water tariffs from the user households? Is it equal for all? Is there any provision of subsidies for those who cannot afford? Are poor households, especially those from female-headed happy with this arrangement? Are there any defaulters? Who are they - women or men?

Who keeps the record of the financial matters? Was the person provided with any training on handling financial matters? If yes please explain in detail the type, duration, venue, timing and usefulness of that training? Is the meeting of the WUC regular? Are both men and women members attending the meeting regularly? Is there a harmonious relationship between the men and the women committee members in sharing responsibilities?

* Were any of the WUC members provided any training? If yes, who are they? How many of them are women? What kinds of training, technical and soft-sector related, were given to them?

Were they given training on gender issues as well? What impact has the training brought in the WUC activities? Who of the men and women are doing better in terms of what they were trained?

* What are the conditions of the tube-wells and tap-stands? Are the caretakers and the local people taking care of them properly? Are the tube-wells or tap-stands and platforms protected well? Are the interests of both the men and women met well in terms of adequacy of water, timeliness, appropriateness of the opening hours, type and frequency of breakdowns, how many times repaired after breakdowns etc.? Are the activities of the caretakers and maintenance workers supervised well? Does the committee have established rules and regulations to take actions against offenders of committee rules and regulations?

What is the role of the project or the agency or the NGO after the project is handed over to the WUC? Is there any provision of monitoring the WUC activities once the project is handed over to them? How often and what mechanism is being followed? How does the committee interact and report back to and with the community and the agency? Are the women in the community meeting regularly the women committee members? Who monitors the WUC activities?

* What is your overall impression about the project in terms of its benefits to people like: regularity of water supply, adequacy of water, quality of water, reliability of services, availability of spare parts, tools and equipment, sustainability of the project in view of people's interest and support to the project activities, operation and maintenance tube-wells or tap-stands in terms of the technical ability of the maintenance worker and the required financial resources, and changes the project has brought in people's especially women's lives?

* Has any evaluation been done as yet? If yes, who did the evaluation and how was it done-quantitative or participatory way? What processes does the institution have for learning from the evaluation? Does the agency have complete record of the beneficiaries or the impact of the project on the local community? Please explain.

Form # 3

A Checklist for examination of Gender Issues in the Management of Water Projects in Nepal

Institute of Irrigation and Development Studies/University of Southampton/UK
To be administered at Committee Level
1997/98

A. BACKGROUND INFORMATION

* Name of Country/Region:.....
* Name of District:.....
* Name of Village/Community and WUC:.....
* Name of Project/Scheme:.....
* Name of Key Informants (WUC Members):.....
* Age:.....* Sex:.....* Education:.....

B. PRE CONSTRUCTION STAGE

* Who initiated this drinking water project in the community-men, women, community as a whole, NGO, or outside agency? Was drinking water a problem in the community? How and when was the WUC formed? How many meetings were held before the formation of the WUC and what was the participation of men and women in those meetings? Who called the first meeting about the formation of the WUC? How many men and women attended it? What major decisions were taken in this meeting and whether they were agreed by both men and women? Were there any basic differences in those meetings from one to another? Were there any problems encountered during the formation of the WUC? If yes, how were they resolved?

* How many members-men and women-were selected to be in the WUC? What was the selection procedure? What were the reasons that you were selected to be in the committee? What is the present composition of the WUC in terms of number of men and women, geographic location, age, education, ethnicity, marital status, literacy, economic status? Has there been any changes in the composition of the WUC from its first formation? If yes, why? Did all the members, especially women, know beforehand that they were going to be selected in the WUC? Were the women interested to be in the WUC? What motivated men and women members to be in the WUC?

* What are the roles and responsibilities of the WUC members? Are all WUC members, both women and men, including yourself, know about these? What is the term of the WUC members? Does the WUC have any specific tasks/rules/regulations etc.? Who developed all these?

* **(Ask this question only if a NGO was involved in the process of identifying the water project.** What was the role of NGO in this project? How did it get involved? How was it formed? How many women and men members are its members? What are its major activities? What do the women members think about their increased roles after being the members of the NGO? How do they cope with their household chores and NGO responsibilities? Have the

NGO members received training on gender issues? If yes, how many, where and how long was the training for?)

* Who decided about the sources of drinking water, location of tube-wells or tap-stands and their number, types of platforms and their facing? Were there any problems encountered in the selection of those facilities? If yes, how were they resolved? Was any users group formed for this purpose? Or was it all done by the WUC itself? What was your and other women's roles in these activities?

* What was the total cost estimate of the project? What was the cost sharing arrangement between the community and the project and how was it decided? Did all the households contribute their part? How long did it take to collect the contribution? Were there any households (poor or female-headed) who had problems in meeting this condition? If yes, how was it resolved? Do all committee PMC members, including yourself, know about the cost of the project? If not, why? Does it not then affect in monitoring the project progress?

* How many meetings were held to decide about all those matters? What was the participation of men and women in those meetings including yourself? Was there any meetings where any of the two sexes had not attended? If yes, who and why? What issues were discussed in that meeting? Did the people who were not present in the meeting ever opposed the decision? If yes, how were they resolved? How do the people not attending meetings get to know about committee decisions? Was minutes of the meeting kept? Who did the record keeping?

* How was the division of labour between men and women of the community in general and men and women members of the committee in particular made for carrying out committee activities? How was it communicated to other men and women in the community and how was their reaction to the proposal? Were there any instances where women in general or women members in particular had shown resentment to any of the decisions? If yes, how were they resolved? Please explain the decision making process of the committee in detail?

C. CONSTRUCTION STAGE

* How long did the construction work take to complete and when was the first time that people got water from the tube-wells or tap-stands? Who were involved in the construction (community, contractor, NGO, outside agency)? Please explain the involvement of each partner in detail? If community was involved, explain whether men and women were involved in the construction as planned and if there were any problems at this stage and the ways they were resolved.

* Was there any alteration in the cost estimate of the project? If yes, what was the total cost at the time of completion of the project? What were the contribution from the local community-cash, kind, labour? Did the community contribute as it agreed before? Who of the men and women WUC members were more active in mobilising local contribution? Why? Were there any problems in mobilising local contribution? If yes, please explain how were those problems resolved.

* Who supervised the construction work? What was WUC men and women members' role in this activity? How were the responsibilities divided among the men and women members of the committee and how were they communicated to other people in the community? Were you involved in this activity? How?

* What is the total length/size of the project in terms of number of villages, households and people covered, number of water source(s) used and their length, number of tube-wells or tap-stands etc. Do you personally know how many tube-wells or tap-stands are there in total and the locations where they are located? If not, why?

D. POST-CONSTRUCTION STAGE

* Has the project been handed over to the local community? If yes, explain how, when and what were the procedure involved in it. Is the project being operated smoothly? Is there any problem in the operation of the project after its completion? If yes, what is the problem and how was it resolved How many men and women caretakers and maintenance workers are there in total?

* What are the roles and responsibilities of the men and women members of the WUC in relation to the operation and maintenance of the project? What are the rules and regulations of the WUC? How are they implemented? How effective have the men and women been in fulfilling their responsibilities? Are people satisfied with the way the project is being operated? Please explain.. * **(Ask these questions to the women committee members who are only a few in the committee**: How do you feel about being alone or being only a few as against the number of men in the committee? Do you and other women think you have been able to contribute much to the project activities even though your number is so small? Please explain.

* Was any of the WUC members provided any training on the technical aspects of the project? If yes, who are they and what was the training about? How many of the trainees were women? Who of the trained men and women are fulfilling their duties effectively? (Take the names of the trainees and ask them separately about the types, content, duration, venue, appropriateness of time, usefulness of the training and its impact in the WUC activities.)

* Is there any maintenance worker in the project? How was this person selected? Was he/she provided any training on the technical aspects of the project? Is he/she performing well? How is he/she paid and is it in time? If not, why? Has there been any operational problem which could not be resolved by the local caretaker or maintenance worker? If yes, how was it resolved? Please explain.

* How many of the tube-wells or tap-stands are in good condition and being used? If there is a change in the number of these facilities from the time of implementation, what are the reasons for it? How many households in the community are deprived of water supply facilities and why? Is any attempt being made to include those households in the present project or any other?

* What are the sources of funding for the operation and maintenance of the project? Is there any arrangement to collect fee from the water users? Are people paying the water tariffs properly and in time? If not, why. How was the water tariffs decided by the WUC? Did the general people agree with the amount of water tariffs decided by the WUC? What roles are men and

women members of the WUC playing in the mobilisation of resources? Who have been more successful in fulfilling these tasks and why? Is the project still getting support from the funding institution for the operation and maintenance of the project? * Are tool kits, spare parts and other necessary items easily available when needed and are they affordable?

* What monitoring and evaluation activities are the men and the women members of the WUC undertaking? How were those activities divided? Is there any system of monitoring the activities of the men and women members including that of maintenance worker?

* Are both men's and women's interests protected well? Are both of them getting equal benefits? How do you perceive the benefits of the project on the part of the community especially women, in terms of accessibility of the tube-wells or tap-stands, adequacy of water, quality of water, reliability of services, ability to pay water tariff, water tariff vs. benefits received from the project, sustainability of the project activities etc.

* If the project has been able to save people's, especially women's, time from collecting water, what have they been using their saved time for? Are women involved in any income generating activities? Are they finding more time to participate in any development activities? Has there been any change in the health status of people, especially women and children, from the reduced labour in collecting water? Please explain. Do you or people in the community have any idea about the longevity of the benefits from these tubewells or tapstands?

* Have the men and the women committee members gained confidence in their skill and ability? Has it helped the WUC members to motivate other men and women in the community? Has there been any initiative to increase the number of tubewells or tapstands afterwards? Have new men and women emerged as leaders? Is the attendance of men and women higher in the meetings? Are men and women more expressive and vocal in the meetings compared in the past? Is there increase in the number of men supporting women's participation in water related activities - how?

* What is your overall impression of women's and men's participation in different project activities undertaken in this community? How have the women committee members including yourself and women caretakers felt about the increased responsibilities in absence of remuneration? How have they balanced their household chores and the committee activities? What are the positive and the negative sides of women's, including yourself, participation in committee activities either by being its members or being caretakers or being users? Are your male family members supporting your involvement in committee activities? Please explain.

Form # 4

A Checklist for examination of Gender Issues in the Management of Water Projects in Nepal
Institute of Irrigation and Development Studies/University of Southampton/UK
To be administered at Users Level
1997/98

A. BACKGROUND INFORMATION

* Name of Country/Region:.....
* Name of District:.....
* Name of Village/Community:.....Ward:.....
* Name of Project/Scheme:.....
* Name of Key Informants:.....
* Age:.....* Sex:.....* Education:.....

B. WATER SOURCES

* How many tube-wells or tap-stands are there in this village and where? Is water available throughout the year in those sources? How many households come to collect water from each of those sources? What problems do people have in fetching water from those sources? How many of the households do have their own private sources? Are there any sources which have not yet been used? If yes, where are they and why have they not been used so far? (At the individual/household level: How many of you have private sources?)

* Are people getting sufficient water round the year to meet their needs-drinking, cooking, washing, cleaning, bathing, feeding animals etc.? Do people ever collect the rain water? If yes, what are the uses of such water (Ask the same questions at the individual/household level to triangulate the validity of the collected information?)

* Who usually collects water in the household? What is the proportion of men/women/children collecting water? How many times does a household need to collect water a day (taking into consideration the family size, number of cattle, socio-economic status etc.)? How much time does one spend by season and by source while fetching water at a time? What type of terrain/road does one have to walk every time to go to fetch water? What type of container do people mostly use for collecting water and how is it transported to household? Who stores water in the house and how ? (Ask the same questions at the individual/household level to the informants to triangulate the validity of the information?)

C KNOWLEDGE OF THE PROJECT

* How was the drinking water project in your community initiated? How was men's and women's participation in planning, designing and implementing the project? Did people have to contribute anything in its implementation? Was there any committee formed to look after the implementation of the project? How did it perform? How many men and women are there in the committee? How were the men and women committee members selected to be in the

committee? How are the men and the women committee members taking up their responsibilities? Is any group doing better over other? How? (How much did you personally contribute in its implementation?)

* What is the present condition of the project? Is there any WUC responsible for the management of the project? If yes, how many women and men members are there in the WUC? Is there any maintenance worker to look after the project? Who do you think are responsible for the operation and maintenance of the project? Are people contributing any cash or kind for this activity? If yes, how much? If no, why and where do you get the resources required for this activity? (How much in cash or kind are you personally contributing for the operation and maintenance of tube-wells or tap-stands?

D IMPACT OF THE PROJECT

* What changes has this project brought in women's and men's lives? Have women been more active in the project activities - how? Are they participating in all activities including while making major decisions? Were they involved in the design, planning of the project such as deciding about the number of tube-wells or tap-stands, design of the platforms and or tube-wells or tap-stands, selection of the WUC members caretakers, participating in technical and software related training?

* Has the project saved women's time than before, if yes, by how much and if not, why? Are men also helping in collecting water since it is now near the house? Is the use of water increased than before, if yes by how much, and why? Since women have to go to participate in project or WUC activities have men started helping them in household chores? Who does various household activities from dawn to the dusk? Please explain in detail (Use activity calendar here).

Has the project increased women's decision-making power than before after their participation in project activities? Are women given more opportunity to make or at least participate while making major decisions about project matters? How do men feel about it? Has women's participation also raised their decision-making ability at the household? Who make major decisions at home with regard to various activities such as agriculture, small household expenditure and capital expenditure? Please explain in detail (Use access and control profile here).

* Has women's participation in project increased their income by any means - from their participation in training and receiving allowances, by being hired by the project for some paid work, be being employed by the project, by receiving technical training such as latrine construction or masonry, and increasing the possibility of future income or by being involved in some income generating activities introduced by the project or themselves? Has this helped women to have a different position in the household and the community?

* What kinds of practical benefits (tangible and intangible) has the project provided to the women and men in the community - in terms of saving in time and energy, regular supply of water, adequacy of water, quality of water, reliability of the services by making provision of caretakers, especially women, and collection of water tariffs for better operation and

maintenance of tube-wells and tap-stands and their higher chances of sustainability,? Are all people in the community covered by the project? If not, what are the reactions of such people towards this project? Are all the women and men receiving equal benefits regardless of their ethnicity, socio-economic status, female-headed or male-headed etc.? Who pays the water tariffs in the households? Are all households able to pay their part of water tariffs? If not, explain how people feel about it?

* Has the project been able to increase women's status in the household and the community? Have the community women and men felt that women have got higher self-esteem, higher knowledge and higher confidence from their participation in project activities? Has all this improved their relationships with men in the households and community? Have they been able to initiate any new development activities in the community? How are they using their increase knowledge? Please explain if there are any examples of such increased confidence of women.

* **(Ask this question to the VDC/DDC officials**: What is the composition of the VDC/DDC? What is the composition of VC/DC? Do any of these bodies have women related activities in the VDC or the DDC? If yes, please explain their types, cost, duration and coverage?)

Form # 5

A Checklist for examination of Gender Issues in the Management of Water Projects in Nepal
Institute of Irrigation and Development Studies/University of Southampton/UK
To be administered to Caretaker/Village Maintenance Worker
1997/98

A. BACKGROUND INFORMATION

* Name of Country/Region:.....
* Name of District:.....
* Name of Village/Community:.....
* Name of Project/Scheme:.....
* Name of VMW (Key Informant):.....
* Age:.....* Sex:.....* Education:.....

B. PROJECT INFORMATION

* When was the first time you heard about this project? Were you ever involved in the construction of this project either as a paid labour or voluntary labour? How were you selected to be in this job and why? Did you have any prior experience of working in similar project? How long have you been working as a VMW in this project? What are your responsibilities? Whom do you report your activities? Who supervises your activities? Who fulfils these activities when you are not present for some reasons?

* Have you received any training on operation and maintenance of tube-wells or tap-stands? Please explain the type, duration, venue, time and the output of the training. Is there any other person who has received the similar training like yours? If yes, could you please give me his/her address? How is the work divided between you two/three? Are there adequate tools, equipment and spare parts for you to smoothly operate and maintain the project activities? If yes, explain where do they come from. If not, explain how do you overcome the problem? Was there any occasion when you could not solve the problem? If yes, how was it resolved?

* How do you get to know about the problem in the tube-wells or tap-stands or the system as a whole? What do you do after you know about the problem? Are you satisfied with your job? How long do you intend to be in this job? How much remuneration do you get? Is it in time? If it is voluntary what has motivated you to be in this job? Will you continue like this? How do you perceive the participation of both women and men in this project? Has the WUC been able to mobilise the other men and women to participate in the project? Please explain. Please explain the positive/negative aspects of this project?

* **(Only to women caretaker/maintenance worker:** Are you facing any problems in fulfilling your duties as a woman? If yes, please explain. Are you getting support from your family (husband/father), WUC members and the community as a whole? What do your male members in the family think about this voluntary job? How do you cope with your household chores and

the caretakers' responsibilities? What changes have you found in yourself after being in this position - any improvement in your status in the household and the community? Please explain.)

Form # 6

A Checklist for examination of Gender Issues in the Management of Water Projects in Nepal
Institute of Irrigation and Development Studies/University of Southampton/UK
To be administered by Observation
1997/98

A. BACKGROUND INFORMATION

* Name of Country/Region:.....
* Name of District:.....
* Name of Village/Community:.....Ward:.....
* Name of Project/Scheme:.....

B. PROJECT INFORMATION

* Number of villages/households/people benefiting from the project at the time of its completion and now (this information should be taken beforehand from the interview with the WUC members or the official record and compared with the present situation). Find out the reasons if there are any differences in before and after situation.

* The measures taken by the community to protect the water sources, reservoirs, tube-wells, tap-stands and platforms and the present condition and their quality. Take note of measures like fencing, planting trees, leakage, cleanliness, misuse, roofing, safety, hygiene, etc. to protect the sources from flood, landslides, children, cattle and livestock etc.? Who of the men and women were observed doing this activity?

* Take note of the availability of water, discharge of water, the functioning and appropriateness of handle, use of waste-water etc.

* Attendance and participation of men and women in WUC meetings? Types of issues discussed in the meetings? Importance given by men towards women's views? Women's confidence in expressing their opinions in the meetings? Record keeping in the meeting and the person doing it? Process involved while starting and ending the meeting?

APPENDIX 5

WOMEN'S PROPERTY RIGHTS IN NEPAL

In Nepal, a daughter can have access to parental property only if she remains unmarried until the age of 35 years; however, she has to return this property if she gets married. On the contrary, sons have the right to the parental property right from their birth. The brothers also have the right to divide the parental property even in presence of their unmarried sister without paying attention to whether their sister stays unmarried till the age of 35 and can claim her share. In such cases, the brothers only have to keep aside her marriage expenses. A woman's right to property is ensured in her affinal household. However, even here, the condition is that she must have been married for 15 years and reached the age of 30. While a woman has no right to dispose of the undivided property without the consent of her husband the latter can, however, do so without the consent of the former (Acharya, 1997).

A wife can legally claim her share of the property only if she is denied food and shelter by her husband. However, the wife is entitled to receive a share of the property from the share obtainable by her husband if she is abandoned by her husband without providing any maintenance or if she is treated cruelly or if the husband marries a second wife. Laws of succession are also discriminatory against women. A daughter cannot inherit her deceased parent's property so long as the deceased is survived by his or her son or son's son. A daughter's turn comes only if the deceased has no grandsons. A deceased woman's exclusive property, if she dies intestate, devolves upon the son who had been living with her; if she is not survived by a son, the property devolves upon the husband. Only if no son or husband of the deceased woman survives, her exclusive property goes to the unmarried daughter, if not, to married daughter, if not, to son's son, if not, to the daughter's son and eventually to the rightful claimant (Belbase et al. 1995).

Overall, a woman's right to property is always limited. Laws are formulated in such a way so as to ensure that no woman has complete control over her property at any point of time. Her only real property is "daijo" (gifts given by her relatives on marriage) or "pewa" (gifts given by her husband or his relatives or self acquired property before marriage). However, "daijo" is limited up to Rupees 10,000 (about 90 sterling pounds) only except for a set of jewellery she wears.

A widow under 30 years of age is not entitled to take her share and live separately as long as her husband's family provides her with food, shelter, clothing and expenses incurred in pursuing the religious activities. A widow's property received from her husband or his family can be forfeited, if she is found unfaithful to her deceased husband. Similarly, a woman who has obtained the divorce because of her husband's impotency has to return the property which she had received from her husband or his family. A divorcee who does not have any earning source of her own is entitled to receive alimony only for five years or till she remarries, whichever occurs earlier, if the cause for the divorce is her husband's marrying a second wife, or not providing her with shelter and food, or deserting her for a period of three or more years, or causing or trying to cause such acts as may threaten her life, or inflicting a serious bodily injury on her or her husband becoming impotent. Hence, on divorce, a woman loses all

her rights to her husband's home and property and if her own family does not provide support and shelter, she may be left destitute. Although there is a legal provision of alimony for a divorced wife for five years, it is very hard to enforce this in practice. (Belbase et al, 1995; Acharya, 1997).

The national development planners and policy-makers (3 females and 3 males), interviewed in this research, also said that despite all these confusions in women's access to property the government's attention on women's issues is increasing over the years. It is a gradual process and it takes time to change the attitude of males. They also said that the pressure from women's groups and the international community is also important for changes on issues like property right. Although Nepal has signed various international conventions such as the United Nations Convention on Eliminating All Forms of Discrimination Against Women 1979, the Government of Nepal has not yet been serious in giving women the right of having access to and control over husbands' and parents' property. This issue has been under discussion in the parliament for a couple of years.

APPENDIX 6

INSTITUTIONAL POLICIES AND PRACTICES IN WATER SUPPLIES

This section compiles information that might supplement the analysis of the institutional policies and practices of the agencies selected for this research in Chapter 6. For policies and practices such as organisational culture and management style, provision for capital and human resources, and role of change agents, which are complete on their own in Chapter 6, no further information has been presented in this Appendix. However, in the cases of issues such as, policy formulation and flow, objectives ad strategies, personnel policies, organisational set up, and project cycle management procedures, some more detailed information have been presented here presuming that they might serve as a useful reference to supplement what have been presented in Chapter 6. The sources of information presented in this section are shown in Table A6.1.

Table A6.1: Number of Interviews held at Head Office and Project Office Levels by Institution

Types of Interviewees\Agencies	NEWAH	RWSSP	FRWSSSP
Head Office-Male Staff	7	6	7
Head Office-Female Staff	6	4	8
Regional/Project Office-Male Staff	7	6*	14
Regional/Project Office-Female Staff	2	1*	4
Woman Engineers	NA	NA	4
No. of Group Interviews with Males	4	3	3
No. of Group Interviews with Females	3	2	3

Notes: * Includes the staff of the DDC and DPU NA: Not Applicable

A6.1 Policy Formulation and Flow

NEWAH: The organogram of NEWAH shows that the highest decision-making body is the General Council (GC) which consists of 10 members, 6 men and 4 women. The council has delegated certain of its rights to the Executive Committee (EC), formed from among the GC members. This EC is composed of 7 members, 6 men and 1 woman. All NEWAH policies are formulated by the EC, which has 1 woman who is a regular staff member of NEWAH. The members who are responsible for making policies in the EC are selected by the GC. The discussions with some GC members, who are also in the EC (3 females and 2 males) and the review of the strategic plan of NEWAH revealed that the GC is not much concerned about having more women in the EC. Rather the concern is more on having people representing different disciplines. In order to have wider external views the EC is planning not to have any staff member in the EC.

The decisions made by the EC and the GC are communicated to the senior management team (SMT) by the NEWAH Director, who acts as the member-secretary in the EC and GC. A

SMT has been formed at the central level which consists of 11 members, 4 regional chiefs and 7 division heads (engineering, health and sanitation, management, operation and maintenance, administration, accounts and the Director) to discuss the official and policy related matters. Out of 11 members in the SMT, 3 are women. The SMT meets every three months to discuss policy matters. Based on the policies made by these bodies the SMT then prepares specific project implementation procedures and other guidelines for implementing water supplies, which again have to be endorsed by the former. In other words, the policy matters are usually exchanged and shared between these two parties.

From the discussions with the GC members and some SMT members (1 female, as she is the only member in the SMT, and 5 males) it was found that NEWAH policies are mainly influenced by donors (mainly WaterAid and others such as ADB, World Bank and FINNIDA engaged in water supplies in Nepal), national policies, experiences of other institutions, staff's experience, and the EC members themselves based on their personal experiences.

With regard to how the policy flows within the institution and whether it flows to the lowest level of health educators, who are mainly women, it was revealed that SMT meeting is held once every one and half to two months where all the decisions made in the EC are shared. Minutes of such meetings are prepared and each concerned SMT member receives a copy of it, which he/she is supposed to use to inform the staff working under him/her in meetings and keep a copy of the minutes in a file. While the meeting with the office based staff takes place every month the meeting with the field based staff takes place every three months. Thus, the possibility is that it might take about one month to three months for the staff to know about the policy decisions. The understanding is that any staff-member who is interested to know about the decisions can read the minutes straight from the file.

Two problems were reported by women working at the lower level in this process. First, because the minutes are in English, they have difficulty to understand it, and therefore, they never attempt to open the files. The result is that they get to know about the decisions quite late, perhaps only in the next staff meeting, which could take as long as three months. In response to this problem, the NEWAH management, while having discussions during mid-1997, said that they are thinking of preparing a newsletter soon in Nepali containing all major decisions so that all staff regardless of their limitation with the English language could know in time about what is happening in the institution. This has not, however, yet happened at the end of this research.

Second, the junior staff do not have much to contribute on the policy decisions even if they are not satisfied with any of them, as they are already confirmed and released. So, this meeting is mainly to inform the staff about the decisions taken by the management rather than taking feedback from them to feed it into the policy formulation process. In this regard, the advice of the junior staff and those who are not in the policy meetings is that the management should consult them before finalising them so that the policy, whether it is personnel related or programme related, can meet the concerns of all men and women in the institutions as well as in the programme areas. Otherwise, the policy decisions can have more implications on women in the office and the project areas since they have to play triple roles; the policies should be able to address their needs and concerns as per all these roles of women.

RWSSP: In RWSSP, the highest decision-making body is the central level steering committee which includes one representative from each of the following institutions:

National Planning Commission, Ministry of Finance, Ministry of Local Development, Ministry of Housing and Physical Planning, Ministry of Health, Ministry of Education, Social Welfare Council, and Embassy of Finland. The Project Manager and the Team Leader act as the secretariat of the Steering Committee. These two are granted to speak in the meetings, but not to take part in the decision-making of the Steering Committee. At the time of research, there was no women's representation in this Committee.

The decisions taken by the Steering Committee are related to the Project Support Unit (PSU), especially to the advisory group, established at the zonal level, and the Ministry of Local Development (MLD), the executing agency of the RWSSP, from where the policies are conveyed to the concerned District Development Committees (DDCs), which are the partners of the RWSSP and are the focal points of the project. The DDCs are responsible for finances channelled to the Water Users Committees (WUCs) and the sector agencies from the District Water Supply and Sanitation Fund (DWSSF). The RWSSP has a separate agreement with each of the six DDCs, under the project, to support them in the water and sanitation sector. For this purpose, a District Support Unit (DSU) has been established and attached to each DDC. The project's supportive and training activities are carried out by such DSUs. The PSU renders supporting services to DDCs through DSUs and is responsible for the external funding of activities. The PSU is responsible for all the technical assistance services of the project. It coordinates and facilitates the project activities in the districts. The PSU is also responsible for the studies and publications of the project. It reports to the Finnish government, the Project Manager and the Steering Committee.

The project document prepared by FINNIDA representatives and agreed with the Government of Nepal is the main policy document in the RWSSP. The Steering Committee is responsible for making changes in the project document and formulating new policies. The policies formulated by this body are informed to the senior staff of the RWSSP by the Team Leader. The Nepali staff working in the project do not attend this policy-making level as it is structured in a very high level as stated earlier. All other major decisions related to administration and management including personnel are made by the Team Leader. The operational guidelines related to the programme are developed by the advisory group which has one woman. The Team Leader and the Deputy Team Leader were asked whether there was any possibility of increasing the female staff at the advisory level. This issue was also pointed out in a gender study carried out by Ms. Ulla Mustanoza in mid 1997; the report was published in January 1998. The report also recommended to hire one gender specialist in the project so that the policies could be more gender sensitive. However, from the discussion with the management it was found that it is not going to happen in Phase II due to their various other priorities; the management said that this might happen in Phase III.

Each individual advisor develops the project guidelines first related to his/her sector, in co0ordination with the concerned DDC staff, and then the whole advisory group sits together to finalise it. The final document is then circulated to the DSU and the concerned DDC. The lower level staff, both men and women, do not have much to contribute to this process. The project does not have any mechanism to inform the major decisions or the policies of the institution to the junior staff. The junior staff feel that they are avoided in the policy decisions. There is no provision of staff meeting and thus the junior staff are always unaware of the major decisions taken in the project though the advisory group members meet every

two months to discuss on policy matters. The junior staff get to know about the decisions as the time passes by.

FRWSSSP/DWSS: The National Water Supply Sector Policy (NWSSP) of the Ministry of Housing and Physical Planning (MHPP) is the main policy document of the DWSS. The implementation of the FRWSSSP is guided by this policy document. Because the DWSS is the main responsible agency in the water and sanitation sector it initiates the formulation of water and sanitation policies in the draft form. While formulating the policies the DWSS follows a number of procedures. It holds workshops at different levels including regional and national, conducts meetings and dialogues with other related institutions such as NGOs, INGOs, bilateral and multi-lateral institutions, forms a task force of subject matter specialists, and hires individual consultants. The policy formulation is also highly influenced by the concerned donors. For example, the project officials said that the emphasis on community participation including that of women in the management of water projects, the emphasis on cost recovery aspects, the present provision of 2 women workers for one engineer etc. are all as per the advice of the ADB/Manila. Once the policy in the draft form is developed, it is then sent to the MHPP and then to the cabinet, for final approval. While policies are approved by the concerned ministry and the cabinet, the related Acts are to be passed by the parliament. The involvement of women in the policy-making body of the DWSS is almost nil since the number of women engineers is only 5 in the whole Department.

Unlike the national policies, the other working/operating procedures and field level guidelines are developed and approved at the project and the departmental level itself. In the case of FRWSSSP, the draft working procedures are developed by the consultants upon consultation with the senior government officials assigned to the project and are finally approved by the project manager and the DG. At this level also, the chance of higher representation of women is bleak as there is only one woman involved at the senior level from the consultant side.

Regarding staffing policies, all government offices/projects will have to follow Nizamati Sewa Niyamawali (Civil Service Regulations) of the Ministry of Law, Justice and Parliamentary Affairs. The DWSS can make a draft policy about the number of men and women employees staff in the department. However, the ultimate decision about it comes from the Ministry of General Administration and the Ministry of Finance. At this level also, the involvement of women in the policy-making body is less possible as there are only a few women engineers in the Department and the other government offices. For example, Acharya (1997) reports that the proportion of women in public administration is only 9%. There is only one woman at the highest level of the bureaucracy, which is the secretary, and she is placed in the Ministry of Women and Social Welfare. In the government agencies and semi-government corporations the proportion of female personnel is 12%. These women are more at the non-gazetted level which indicate that women are incapable to contest for higher level civil service positions due to greater competition from men for the same, and thus, not able to contribute to policy matters.

As reported by the women working at the lower level in both the field in DWSO and RPMO, and the head office in CPMO and DWSS, their chances of contributing to policy formulation related to both technical as well as administrative matters is nil. There is no mechanism to inform the policy matters to the staff, especially junior who feel that they are always avoided on this matter. The administrative policies are all published in Nizamati Sewa Niyamawali and the staff will have to find it out themselves. As reported by the junior staff they get to

know about these policies late. Even among the junior staff, it is women who get to know about the policy matters quite late. This is mainly because they are less educated, mostly in the lower positions, and less in number and thus feel less confident in asking about policy matters. The policies related to technical matters, on the other hand, are circulated to the concerned section chiefs, division chiefs, project chiefs and regional directors/managers for their effective implementation. The junior staff reported that because there is no system of staff meeting they never get to know about policy decisions on time.

The senior officials of the FRWSSSP/DWSS were asked whether there was any possibility of increasing the number of women engineers so that they could play a meaningful role in policy formulation. The answer was that there is no special policy or quota for women in the Department. In the present context, the only way to have more women is if the women can compete with men. About the possibility of introducing quota system for women the officials are not in favour of this idea as they said "instead of allocating quota to women, an environment has to be created where women get equal opportunity as men. It is not something that can be done at once. It is a gradual process and it takes time". One senior official from the CPMO said that what is important at the beginning is to increase female enrolment in schools. This will eventually lead to more opportunities for women to participate in all levels.

A6.2 Objectives and Strategies

NEWAH: From the review of NEWAH documents and the discussions with NEWAH staff it was found that NEWAH's vision is safe water and sanitation for all people of Nepal. To attain this vision NEWAH aims to achieve sustainable improvements in the quality of life of Nepali people by working through partner organisations and beneficiary communities to improve drinking water supplies, sanitation and associated hygiene practices. NEWAH believes to achieve this aim through the following six objectives (NEWAH, 1998):

- Support projects that integrate water, sanitation and hygiene education activities.
- Help develop the capacity of local partners and communities to undertake other development activities.
- Secure long term funding from a diverse range of donors.
- Contribute towards human resource development within the sector.
- Improve management aspects for institutional development.
- Expand programme in areas in greatest need.

As mentioned in its "Strategic Plan 1998-2002", NEWAH intends to fulfil those objectives adopting the following strategies:

- Reviewing decision making on new project proposals so as to prioritise most needy people.
- Improving the quality of project work in water supply, health education, sanitation and maintenance by developing technical skills of its staff, taking part in research activities,

promoting alternative technologies such as rain water harvesting, integrating health education inputs with concerned ministries, developing low cost lining materials, and routinely monitoring the maintenance performance of its projects.

- Providing skills to local NGOs to identify problems, design solutions, write proposals, manage their facilities themselves, and monitor and evaluate their programmes more independently.

- Allocating resources for fund raising activities both inside and outside the country.

- Providing opportunities for on-the-job training of research students, volunteers and researchers from both Nepal and overseas on water and sanitation and making provision for the secondment of staff from sectoral agencies to NEWAH and from NEWAH to other sectoral agencies.

- Continuing interaction with academic institutions to provide its input into development courses, design of curricula and production of training materials.

- Increasing its support to hardship area such as the Mid and Far-Western Region and semi-urban and peri-urban areas.

- Improving management aspect for institutional development through expanding membership both at the board and the general level, clarifying roles and responsibilities of the board members and the management, decentralising authority to the regional offices, promoting participatory decision making processes among the staff, acquiring its own office premises and a satisfactory working environment, reviewing personnel policy, providing appropriate training to the staff and effective monitoring and evaluation of its activities.

In order to meet the project objectives, NEWAH's focus is on the mobilisation of local NGOs and community participation since the beginning of the project. The community participation is expected in terms of formation of local users' groups, cash contribution to capital costs and operation and maintenance costs, labour contribution during construction work, and operation and maintenance of the project once the project is handed over by NEWAH to them.

RWSSP: As reported by the senior staff of the RWSSP, the project was implemented in two phases, Phase I and Phase II. The Phase I was planned to support the water supply and sanitation sector development in Nepal with the following two major objectives (RWSSP, 1996):

- Development of institutional capacity to provide safe, sustainable water supply and sanitation services in the Western Region of Nepal through water service rehabilitation and extensions, excreta disposal facilities, health education, community participation and human resources development within the framework of His Majesty's Government of Nepal's (HMG/Nepal) national sector policies and objectives, and

- The provision and promotion of use of safe, sustainable water supplies and improved sanitary facilities in accordance with national guidelines to 100,000 people in the Lumbini Zone of Western Development Region to meet the needs of local communities and the development of institutional and local capability to operate, manage, extend, upgrade and

maintain the water supply and sanitation systems provided in order to improve health and economic activity in the project area

The project aimed to achieve these objectives through five sub-projects namely: district water supply development plans; physical improvements of water supply; socio-cultural, hygiene and latrine programmes; training and human resources development; and community participation. In Phase I, community participation was emphasised throughout the project period for satisfactory execution of the project and the appropriate use, operation and maintenance of completed supplies. A step-by-step approach was developed for involving communities at various stages of a water project. The active involvement of local communities in all stages of planning, designing, constructing and operating, maintaining, and extending/upgrading the water supply system serving their needs; training in preventive maintenance activities, necessary to ensure the continuity and extension of such supplies in the future and the encouragement/development of increased economic activities and public health education in order to stimulate economic and public health benefits in the local community was the main focus of Phase I. Because the community participation approach has implications for the desirable type and size of a water supply system and for quality control of construction, the focus of Phase I was on the design of small, simple and well constructed schemes.

In Phase I, the highest priority for implementation was given to those schemes where beneficiaries' readiness to contribute either cash or labour or both was highest. The reason for such a provision was to raise community's feeling of ownership towards the project. After implementation the completed facilities were handed over to the local communities for routine operation and maintenance with community financing. The activities which could not be met by communities themselves were supposed to be taken care of by the relevant District Water Supply Office (DWSO), which is the implementing agency for Phase I. In principle, the cost of such backstopping is usually covered, at least in the beginning, by budgeted funds though it was not found to be true in the project communities as reported by the local people.

This major strategy of community participation was aimed to be achieved through various support activities such as, strengthening the capability of the district level agencies as well as community through seminars, theoretical and practical courses, on the job training and refresher courses. Carrying out a socio-economic study was also given a high priority so as to find out people's willingness to pay for services and their understanding of health and hygiene and to develop appropriate programmes to raise their awareness of connection between water, hygiene, sanitation and health, accordingly. RWSSP's seriousness about community involvement in water projects can be realised from the proportion of contribution that users have made in the water projects. The users' contribution in the gravity schemes was 27% on average while in the shallow tube-well schemes it has been 20% on average (RWSSP, 1996).

The major objectives of the Phase II of the RWSSP have been the following:

- Assist HMG in achieving the national sector development objectives by supporting the decision makers and implementing agencies to assist the communities in their effort to improve their water supply and sanitation situation.

- Support the promotion, development and use of safe sustainable water supplies and improved sanitation in accordance with the national policies and based on the needs expressed by the users.

The immediate objectives of the RWSSP are: i) to strengthen the capacity of the district and village development committee (VDC) level decision makers to plan, coordinate, monitor and evaluate the water supply and sanitation sector in their area, ii) to strengthen the capacity of the sector agencies, the emphasis being on the private sector, to assist the water users groups in water supply and sanitation development, and iii) to complete the Phase I activities. These objectives are to be achieved through active involvement of partners like DDC, VDC, users and NGOs in project implementation. The RWSSP will play the role of a facilitator only and hence, it will not be directly involved in implementation. The second Phase has a few major changes in its approach compared to the first Phase which are as follows:

- The project works through the DDCs, instead of DWSOs as in Phase I, which have the main responsibility for planning, co-ordinating and monitoring of the drinking water and sanitation projects. The project through its DSU will assist them.

- Setting up of DWSSF in each district to support the implementation of water supplies. Both HMG Nepal and the Government of Finland contribute 50% of the fund.

- The DDCs, with the help of the project, select Support Organisations (SO), mainly local NGOs, to assist the beneficiaries in the implementation of the water supplies. The work of such SOs will be monitored by the concerned WUC.

- A WUC is formed in every scheme to take up the main responsibility of the implementation, operation and maintenance of the scheme. The WUC is responsible for managing the money for buying construction materials and paying labour and transportation. The project trains SOs to assist the WUCs in financial matters, bookkeeping, procurement, store keeping, and operation and maintenance.

- Revision in the step-by-step approach developed in Phase I to include new actors in this phase such as DDC, VDC and NGOs. The revised step-by-step approach is more comprehensive in its emphasis on the role of community in water supplies.

FRWSSSP: The project document indicates that FRWSSSP is aimed at improving the quality of life including health, productivity and living conditions of children, women and men by ensuring access to safe, adequate, reliable, sustainable and locally relevant water supply, hygiene education and sanitation facilities. To fulfil this goal, the project is guided by the following principles (HMG/Nepal, 1996 and other project documents and brochures):

- Water supply is a felt need of all the members of the proposed partner communities and not of the few.

- Source is safe, reliable, free of conflict and closer to community.

- All members including men, women, young, old; rich and poor; high and low caste of the partner community participate in different ways at all stages of the project period.

- WUCs include elected members by and from among direct users and demonstrate their commitment for the management, monitoring and maintenance of the completed system

by collecting start up fund, setting water tariff and recruiting village maintenance worker (VMW).

- All WUC members participate in week long training on health, sanitation and management related subjects.

- Partner communities commit to improve water use, their personal household and village hygiene and sanitation practices; participate in water and hygiene education and sanitation activities under the guidance and leadership of WUC, women and youth volunteers; participate at all stages of the project period including feasibility study, planning, preparation and construction; share the cost of construction both in cash and kind; and take full responsibility for cost, management and maintenance and minor repair of the completed scheme; and water use, hygiene education and sanitation programme is co-ordinated with tertiary level activities of the health and education sectors.

To meet the above objectives the following strategies will be adopted in the FRWSSSP:

- The partner communities will identify need for water supply; debate, decide and agree on the type of system, its implementation procedure and their roles and responsibilities in the implementation; initiate and shoulder sanitation improvement activities; and take charge of operation and maintenance of the completed system with DWSO functioning as a facilitator.

- Involve partner community in all stages of water subject in order to bring about a sense of ownership, commitment and efficacy for the operation and maintenance of the system. For this, the partner community is expected to collect Rs. 1,000 per tap-stand from the concerned users. The interest of this money, which is deposited in a bank, is used for the operation and maintenance of the scheme.

- Implement community education and awareness programme aiming at water use, hygiene education and sanitation.

- The RPMO will provide guidance, training and monitoring support in social preparation, management and technical aspect to DWSO to make working procedure a possible reality, through a team of social scientists and engineers under the guidance of and supervision of National Advisors in social facilitation, design and management. The RPMO will also organise forums for DWSO officials for sharing, learning and raising concern through regular dialogues and workshops.

- The DWSO, which is the key actor, will act as facilitator beginning from the need identification exercise to planning, preparation, capacity building - training of WUC members, VMWs and volunteers - construction including operation and maintenance of the completed scheme.

- The DWSO will maintain status of each water supply and sanitation activities within district through regular co-ordination meetings of the agencies and organisations engaged in water supply and sanitation sector.

- The DWSS as the lead agency at the centre will co-ordinate activities with agencies active in water supply and sanitation sector.

A6.3 Personnel Policy

NEWAH: NEWAH has a personnel policy for its employees. This policy does not, however, say anything about the recruitment of staff by gender. The senior staff at NEWAH reported that the staff at NEWAH are employed based on institutional needs and the qualification and experiences of the applicants. The facilities that are given to its employees are home leave, casual leave, sick leave, public holidays, accident insurance, medical allowance, provident fund, equipment grant, and severance pay. Aside from these facilities available for both sexes, the men employees are provided paternity leave of seven days while women employees are provided maternity leave of 30 days. Some other issues which are not mentioned in the personnel policy but that came out during the discussion with the NEWAH staff, both women and men, are as follows.

Due to the household chores including cooking, washing, taking care of children, sick and older ones and the like the women staff have difficulty in meeting their dual responsibilities of home and the office. Realising this problem of women the senior officials have given certain flexibility to them so that they could cope with both. In cases in which women need extra holidays or are unable to go to the field for some time due to some household responsibilities, or pregnancy or delivery, they can negotiate this with their colleagues to take care of their work, including field visits if necessary. She can compensate it when she is back to work afterwards. Even while going to the field it was reported that women are given separate lodging facility wherever possible. Further, one person is always sent to accompany a new female staff-member while going in such field work. This facility is removed once the staff is a bit older and feels more confident of moving on her own. One problem that came out of the discussion with the regional staff is that the married women have more problem of going to the field for project work than the unmarried ones as the former will have to take permission from her husband and will have more household chores.

Similarly, in cases of women who have small children to be breast-fed there is certain understanding among all senior and junior staff about giving some extra time to them for this activity in the daytime. The present practice is that the women staff who need to go home to feed their babies take up to 90 minutes as tiffin time which is only 30 minutes in a normal case. It was also found from the discussion that such flexibility has been enjoyed until now only by the senior most female staff. Because of her seniority she did not have much problem to enjoy this flexibility though at times there were complaints from the regional offices about lack of supervision visits from her to monitor the progress made on her sector. It was reported that the same level of understanding from the management to other women, when their numbers increased, was not seen over the years.

It was also found from the discussions that the issue of flexibility to women staff is frequently raised in the senior staff meetings. The senior officials feel that certain policies need to be formulated to address such issues which might be effective in retaining women and attracting more women to the institution. Because such decisions can be taken only by the EC it was reported that the issue has been forwarded to the notice of the EC. However, until the time of this research, which went on for almost two years, nothing was done by the EC on this matter.

About the salary given to the employees, it was reported by the senior management that there is no difference between the salary of a man and a woman working in the same position which is also agreed by the employees met during the course of this research. The opinion of

the junior staff working in both the head office and the regional office/field office were explored regarding whether they were satisfied with the salary given to them, their position against their ability and qualification, the nature of their job etc. In response, the staff reported that they are satisfied with the institution as there is no gender difference in these aspects. They also reported that they have not yet felt any sexual harassment from the male colleagues or male senior staff. In general, the female staff are happy as they see NEWAH taking more interest in increasing the number of women employees, but, at the same time the women staff have some concerns, which the management has not yet resolved, as follows:

- The maternity leave of one month given by the office is not adequate. There should also be a provision to use the accumulated leave of the previous year to the next year so that women could use such accumulated leave especially during maternity period. It was also reported in the meeting that some women had to resign as they could not use their accumulated leave of the previous year and the 30 days maternity leave was inadequate to them.

- The female field staff working in the health section have high work loads. Thus, some staff need to be added in this sector. This mechanism not only helps to balance the work load but also helps not to hamper the work when a female staff-member is on long leave, such as maternity, as the other person could share the work.

- The NEWAH office hours is 9 am to 5 p.m. In this regard, the female staff reported that they have difficulty in coming to office at 9 am as they have to do a lot of work at home like cooking, washing, sending children to school etc. in the morning. Though there is an understanding that the female staff can come until 9.30 am when they have such tasks they do not feel comfortable to come always at 9.30 am when such flexibility is not stated in the policy.

- There should be a provision from the office to let women take their breast-feeding child with them while going to the field. Such women may take one helper to look after the child. In such a case the office should pay the cost of the helper incurred in food, lodging and transportation. The female staff said that at present health motivators are practising this mechanism but at their own expense.

- There is inconsistency in the transportation facility as the section head, regardless of their sex, receives this facility, while the other women do not receive this. Since women also have to take care of household chores, the transportation facility is more necessary for them regardless of their position. Unlike the men staff they cannot always ask for a ride from men staff, for various social and cultural reasons.

Because of the above mentioned reasons some dissatisfactions were reported by the female staff working at the post of health supervisor. This is also supported by the staff turnover figure in the last four years where 8 male staff had left the job as against 7 female staff, 6 of whom were from the health section. Because the numbers of women staff were much lower than the numbers of men staff in these years, the number of women leaving the institution is more serious than the other one. Because the facilities given to women staff are all based on understanding but not on written policies, the female staff said that some women are receiving them and some are not. Further, when such facilities are not in the policy they could be stopped anytime.

RWSSP: The RWSSP management reported that the project does not have any personnel policy but some guidelines which have been prepared for the purpose of easing the administrative matters such as leave, medical expense etc. It also does not have any recruitment policy and staff are hired whenever there is a need for it. Surprisingly, the RWSSP does not even have the basic facilities for its employees which are given by almost all institutions, foreign or Nepali, working in Nepal. They are: maternity leave for women and crematory leave for men. The staff said that they have to use their accumulated leave on such occasions. The only leave the staff are getting at present is 12 days' sick leave and one month's annual leave a year. Aside from salary the other facility that staff are getting is a medical allowance not exceeding Rs. 40,000 a year.

Given these facilities the senior and the junior staff were asked whether they were satisfied with the salary and the other facilities that they were receiving as against their ability, experience and qualification. The senior staff were more or less happy with the salary that they were receiving. The only confusion that was observed among the senior staff was that none of them knew about the amount that the other person was receiving. Hence, each had the impression that the rest of the staff were receiving more than him/her though the level of responsibilities was almost equal. About this scenario, it was reported that the salary scale is as per negotiation between the individual staff and the team leader. Thus, one's salary depends entirely on his/her negotiation skill. However, the management keeps in mind that there is not much difference between the salary of two staff working at the same level. The dissatisfaction of the senior staff was about the lack of provision of maternity and crematory leave.

The same question also was asked to the junior staff. As compared to the senior staff the junior staff had a lot of grumbling which are as follows:

- Because the project is working in partnership with the government, it should provide at least those facilities to its staff which are being provided by the government to its employees. One example is of maternity leave and crematory leave. Due to not having this facility one female staff had to attend office just 22 days after her delivery, which is very uncommon in a Nepalese situation. As a result, this woman had to ask help from her other family members to bottle-feed the baby.

- There is no flexibility in office hours for the female staff. The management is not much concerned about the dual role that a Nepali woman has to play: one at the household level doing all household chores and the other outside home taking official responsibility.

- The junior female staff were frustrated with the fact that when there was a gender study carried out by a foreigner in the RWSSP they were not consulted at all. They have the feeling that junior staff, whether they are male or female, are always avoided in every matter.

- The junior staff have the impression that they are intentionally excluded from all activities in the office. For example, there used to be formal/informal parties quite often in the past. However, at present, the junior staff have not been invited in any party for quite some time. They are not invited in any official gathering.

- The junior staff think that the senior staff are concerned only with their own welfare and benefits and they are least bothered about the problems of the junior staff. They think

there is no one in the office with whom they could share their concern. There used to be monthly meeting in the past. In such meetings the junior staff could raise their concern. However, there has been no such staff meeting in the last two years.

- The annual salary increase is only at the rate of 3-5%. Because the junior staff receive low salary the increase in absolute figure is very nominal as compared to what it means to the senior staff. Their recommendation was that the percentage increase should be high for the junior staff as their base salary is low.

- The medical bill of less than Rs. 500 is not processed by the administration until the claimant can make it of Rs. 500 or more. If someone spends Rs. 450 on medicine that bill will not be processed and kept in pending. In this regard, the junior staff feel that this system needs to be changed since Rs. 450 is a lot of money for a junior staff person drawing less salary. This problem has affected women more than men as it is women who are at the lowest level in RWSSP and because the task of looking after the health of the family members falls on them.

- The junior staff also suggested that the record keeping system, especially of leave used, and the present time spent on reimbursing the medical bill needs improvement. This problem was reported particularly by the woman who was working at the lowest level. She said because she is illiterate she has difficulty in understanding how the record of her used leave is kept by the office. A number of times, the official record did not match with her own oral record but because she could not convince her seniors, who are all males, about it she thus had to lose a number of days of her accumulated leave.

Because of the above reasons the junior staff feel that a number of junior staff might leave the project before it enters into the third phase. In the last eight years, a total of five female employees and eight male employees have left the institution. In case of women employees, leaving was mainly due to better job opportunities outside, marriage and husband's transfer to another location, and in case of men employees it was mainly due to better job inside and outside the country and also due to completion of the project work. Since the number of women in RWSSP has not been 4-5 a year ever since its beginning, the point that five women staff have left in the last eight years needs to be taken seriously.

FRWSSSP: The FRWSSSP officials reported that the recruitment of the regular government employees is as per the rules set out by the Public Service Commission, and the rules that apply to them are as per Nizamati Sewa Niyamawali (Civil Service Regulations). This might be slightly different while hiring staff at the project level for the project period. The facilities that the FRWSSSP staff are receiving are also as per the Nizamati Sewa Niyamawali. Such facilities include: emergency leave, festival leave, home leave, and sick leave. In addition, while women employees are given maternity leave of 60 days, the men employees are given crematory leave of 15 days. The women employees can take such maternity leave twice in their working period. In case of the married women employees, they are also allowed to use the crematory leave if their husbands are using it.

In addition to these facilities, the other facilities that are in favour of women are as follows: i) if both the husband and the wife are in the civil service they should be placed in the same area as far as possible (HMG, 1996), ii) there are different age barriers for men and women to apply for different posts at the government service, but, in case of women, not men, who have

been working in the government on a temporary basis for a continued five years there is no age barrier to be a candidate (HMG/Nepal Gazette, 1998), iii) the probation period is also in favour of women as it is only six months for them while it is one year for men (HMG/Nepal Gazette, 1998), iv) the government has set certain number of minimum years to be served by men and women employees to be candidate for promotion, however, here also, the women employees are considered for promotion even if their service period is one year less than the normal minimum criterion; this is not the case with men employees, however (HMG/Nepal Gazette, 1998).

The senior staff of the FRWSSSP reported that no department can change these facilities even if the staff are dissatisfied with any of these facilities. These facilities get changed only when there is a special commission formed by the cabinet to look at such matters. When the women staff, both senior and junior, were asked about these facilities they were happy with these provisions though it was different in the case of temporary women staff as they could not enjoy all these facilities. In general, the female staff working in both the office and the field revealed that they do not have any problem of sexual harassment or discrimination in any form in the facilities such as remuneration between them and their male colleagues though the salary on its own is low. The female staff were happy that their seniors were quite positive in understanding that they have more personal problems than men because of their household chores, including caring for children. Hence, they were given some flexibility in working hours so that they could cope with both household as well as office activities. While going to the field also the women staff said they were accompanied by one person so that they could feel more secure. Similarly, the other consideration that women staff were getting from their senior male officers was that whenever they are pregnant and have difficulty in going to the field they are asked to come to the central office on deputation. Likewise, the women staff are also allowed to join the RPMO or the DWSO in the districts where their husbands are working.

Despite such understanding of their senior male officers and the facilities that they are presently receiving, the women staff, particularly those at junior levels have some concerns as follows:

i) Because the flexibility given to them in the office hours is based on verbal understanding, it is embarrassing for them to get such favours from their male officers as it is sometimes interpreted differently by their male colleagues. If such kind of flexibility and understanding was built in the policy itself then they could take it as their right. However, because this is not in the policy any such favour that they receive from the office is understood by their male colleagues as a special privilege for them from their male boss, which is disappointing.

ii) The male and the female employees working at the lower level said that they do not get to know about the policy decisions for months as there is no staff meeting for long periods. For example, the field staff reported that in the last 7 months they attended only one meeting. The junior staff feel that their duty is only to do what they are asked; they have no right to provide any feedback on the official matters.

iii) One other dissatisfaction reported by the female staff working in the field was that though there were women recruited at the post of WSST they are all kept in the administrative jobs. None of such women WSSTs is sent to the field, unlike their male counterparts. The reason is that both the male officers and their male colleagues think that women cannot work as WSST

out in the field, as this is a labour intensive position. When women staff were asked about this matter they flatly said that they can also do the same work that men do. They further said that they can ask help from others if there are activities that they cannot handle alone. On the other hand, the opportunity of going to the field could have given them extra income in the form of field allowances.

iv) The other dissatisfaction is about the policy of field allowance. Because the DWSO has a limited budget on this heading, the field staff are given field allowance on a proportionate basis and not for the total time they spend in the field. Owing to this reason, the field staff said that they are not so motivated to spend more time in the field.

v) Finally, the junior staff also complained about the recent decision of the government about expelling all temporary employees from their job. In fact, the number of temporary employees is almost double the number of permanent employees in the field. Many of such temporary employees have been working for 10-15 years. And, now, the government has, all of a sudden, decided to remove all such temporary employees without paying attention to the period they have served and the difficulty they might face in finding other jobs because of their qualification, age etc. The women staff said that the repercussion of this decision is more on them than on men because they are less educated than men and thus they have more difficulty in competing with men. Further, because of their age also, they will be given less preference over males. And, finally, the status that they have been able to maintain at the household by contributing to the total family income will be jeopardised once they are out of work.

A6.4 Organisational Set Up

NEWAH: The organogram of NEWAH shows that it is very hierarchical in its structure, with the GC being the highest decision-making body followed by the EC, Director, division heads, regional co-ordinators, section chiefs, section officers, technicians and supervisors, and health educators, all in a hierarchical order. As of July 1997, there were a total of 97 employees in NEWAH among whom 10 (10.3%) were women. However, over a period of one year (until the end of 1998) when the field work with other institutions was still going on, NEWAH increased the number of its staff to 128 among whom 22 (17.2%) are women. For daily operation of the institutional activities there are one Director, four divisional heads and a number of other senior staff and support staff who are based at the central as well as regional offices. At the central level, there are five female staff of whom four, who are all in the programme planning, are at the officer level and one who is in the administration is at the support level. Among the women officers, one is the second senior most in the hierarchy in NEWAH heading the health and sanitation division. The rest of the women employees are at the support level mainly in the position of health supervisors and health educators who are mostly based in the regional offices. In the head office, there was one other senior female staff co-ordinating the Participatory Action Research (PAR) project that NEWAH was implementing in collaboration with IRC International Water and Sanitation Centre, the Hague. However, the woman left during the course of this research and the project is now led by a man.

The regional office of NEWAH located in Nepalgunj, which implements drinking water and sanitation projects in the MWDR, has a total of 21 staff, 17 male and 4 female. While two of

the male staff are at the officer level and a majority of them are in technical positions, all the female staff are at the assistant level in the position of Health Supervisor. As Health Supervisors, these female staff are responsible for implementing and supporting health and sanitation related activities in NEWAH project sites in the MWDR. They also train the Health Motivators and Female Health Volunteers (FHVs) who are recruited to work with the project communities. While the Health Motivators are paid up to the project period, which is usually for six months to one year, the FHVs, the unpaid positions, are selected by the concerned communities to provide health and sanitation education to the project people, especially women.

It was reported by the NEWAH staff that the reason for the small number of women staff as compared to men is the difficulty to hire technical female staff. Hence, the general tendency of the management has been to recruit women employees for the software component i.e. health and sanitation and men employees for the technical component. Accordingly, almost all engineers and overseers, apart from one, are men, while all, apart from two, health supervisors/health educators, all health motivators and all volunteers are women. Recently, NEWAH has employed two men in the post of health supervisors and one male in the post of health volunteer/motivator in each region, and one woman overseer. Both these activities are on a pilot scale. The reason for hiring males to the post of health motivators is due to the difficulty that female health motivators have in motivating males in the community where there is a Purdah (veil) system under which women are not supposed to show their face to any outsiders other than their own family members. It is thought that the local male health motivators might be more effective to go and discuss with the males in the community rather than female health motivators going and discussing with males when they are still observing the purdah system. This idea is being tested in a few Tarai projects and the results are yet to be seen. This problem was not felt before as the focus of health education was only on women but it was realised later that since men control money and the decision making in most of the rural households it is also necessary to include men in the programme.

It was also reported by the senior NEWAH officials that gender issues, such as increasing the number of women employees, both at the central as well as regional offices in general and in technical positions in particular, employing more men in the software side and making policies in writing to enforce these ideas etc. are frequently discussed in the meetings of SMT. In early 1997, there was a visit made by an evaluation team from WaterAid/UK to NEWAH. One of the recommendations of the evaluation team was that NEWAH has to maintain a gender balance in its overall staffing pattern as well as in the technical side. Given this recommendation, NEWAH recruited one woman to the post of technician, one to the post of fund raiser/mobiliser, and one as a Regional co-ordinator.

However, the problem was to retain them, since two women, one who was co-ordinating the PAR study and the other who was the Regional Co-ordinator, left the agency when the research was still going on. Though the SMT members feel that in the long run NEWAH should have at least half women in the position of Regional Co-ordinator, there is not even one at present and no special efforts have been made for this purpose. As of July 1998, the number of women at the officer level was 5 as against 12 men. NEWAH also has started giving on-the-job training to women technical students coming from the Engineering Campus in Kathmandu so that they could be hired as technicians afterwards. For example, one female trainee-engineer was hired for 10 months at NEWAH at the time of research.

RWSSP: The staff at RWSSP think that the organisational structure at RWSSP is not only hierarchical but also authoritarian where all the power rests with foreign expatriates. After the steering committee, it is the Team Leader who decides about the organisational matters. The Nepali senior staff at PSU and DSU develop programmes and project guidelines relevant to their areas but ultimately it is the Team Leader and the Deputy Team Leader who finally decide about all institutional matters concerning both administration and the programme. There are four persons working as employees from consultants in the DSU of each district making a total of 24 in six project districts. At the time of research, there were only 2 women, 1 at the officer level and the other at the assistant level, out of 24 employees in the six DSUs. Similarly, at the PSU, where 40 people are employed, there is only 1 woman at the senior level working in the capacity of Health Advisor and 2 other women working at the lower level. The project also works with a number of support organisations (line agencies and NGOs) depending upon the type of services needed at the village level in implementing water supply and sanitation schemes in line with the step-by-step approach. The project also aims to support DWSOs in taking up their changed role as facilitator in the water sector.

The project is headed by a Finnish Team Leader who is assisted by a Finnish Deputy Team Leader. Among the Nepali staff, 5 are considered as the senior staff (advisory group) and thus involved in the development of operational guidelines related to programme. Those five Nepalis are working in the capacity of Health Advisor (female), Institutional Advisor, Planning Advisor, Technical Advisor and Administrative Advisor. While the first four are responsible for the programme side the Administrative Advisor is responsible for administrative and accounting matters. Each advisor is responsible for developing programmes related to his/her sector and supporting DSUs, DDCs and SOs for programme implementation.

The small number of women in RWSSP was pointed out by missions coming at different times to evaluate the project activities. This issue was also highlighted in a gender study carried out in mid 1997. When the senior staff in the project were asked about this issue the team leader, deputy team leader and the Nepali senior staff said that it is difficult to employ women, especially at the senior level. For example, the project had recently advertised two vacancies for the post of District Support/Programme Advisor. Despite the fact that the advertisement encouraged women to apply there were only two applications from women out of a total of 40 applications. Since these two women have to compete with 38 men their chance of being selected is low. It was further reported by the senior staff that the project even bears all the expenses of women applicants incurred while coming for an interview but still they are not finding appropriate women candidates. One reason that came out from the discussions about the reasons for such poor participation of women applicants is that the advertisement was not perhaps strong enough to motivate women to apply. However, they did not show any commitment with regard to what they will do to overcome such problems in the future.

Nonetheless, one positive aspect is that the senior management have gradually realised that they need to have more women in the project and the reason that this issue did not receive proper attention is because there is no one directly responsible for this activity in the present structure of the agency. Hence, a provision has been made in Phase III of the RWSSP to recruit a gender consultant to ensure attention to such matters.

FRWSSSP: The highest body of the FRWSSSP is the central project management office (CPMO) which is based in DWSS. Since the project has been integrated into the mainstream of the DWSS the CPMO will have to abide by all DWSS policies and work under the Director General and two Deputy Director Generals of the DWSS. The CPMO which is the responsible body for the effective implementation of the FRWSSSP and headed by a project manager has a total of 26 employees, 20 male and 6 female. At the senior level, there are 7 men and only 1 woman, while at the support level there are 13 men and 5 women. The only female at the senior level is a consultant hired only for the project period. There is no senior woman involved at the central level of the FRWSSSP from the DWSS.

Under the CPMO are three regional project management offices (RPMOs) headed by 3 managers. At the time of research, the concerned RPMO based in Itahari had a total of 29 staff, 25 male and 4 female. Out of 29 staff, 7 are at the senior level of whom only one is a woman working in the post of Sociologist. In addition, there are 5 consultants, all males, to help in the implementation of the project. These consultants are only employed for the project period. In the FRWSSSP, the provision of consultants is made only at the central and the regional level but not at the district level. Among the consultants, all but one are males. In the other two regions, there is one female sociologist who is based in the regional office.

Similarly, at the district level (DWSO), which is the main implementing unit of the FRWSSSP, there are 33 employees among whom 30 are males and 3 females. There are 3 staff working at the senior level all of whom are males. At the time of research, there was also a pool of 48 staff, 40 males and 8 females, all working on a temporary contract. The recent government policy demanded removal of all temporary staff effective July 16, 1998 though these staff had been working for years. Out of 8 temporary women staff 3 are in the post of WSST. There was no permanent woman WSST at the time of research at the DWSO.

Regarding the small number of women in all central, regional and district levels the senior female consultant and the other senior DWSS officials said that it is not necessary to increase the number of women in any of the bodies. What is considered necessary is a policy which allows the women in the community to participate in all activities. The senior staff of the DWSS are more concerned about increasing the participation of community women in project activities but not on having more women staff at different levels. They were unable to respond to the question about how women's needs and interests can be met in project communities without more women at various levels, including in the survey teams which directly deal with communities. When the findings of this research were shared with the RPMO staff, showing how lack of women's presence at various levels leads to project's failure in meeting women's genuine needs and concerns, the project officials appreciated that a higher presence of women staff at various levels is essential.

A6.5 Project Cycle Management

NEWAH: NEWAH prepared guidelines for Tube-well Implementation Procedures in 1996 and it is still following the same guidelines. These guidelines are completely technical with no focus on the social or the gender dimensions of the project communities. Discussions with the senior staff of NEWAH as well as with the project staff revealed that there are a lot of changes in the way they plan, design and implement the water projects compared to the methods mentioned in the guidelines. The main difference reported concerns the involvement

of women in project activities, which is not mentioned in the guidelines. It was also admitted by the informants that in some cases the project staff still follow the same procedures as indicated in the guidelines and when this happens, the chances of women's participation in project activities is minimal. Because the current focus of NEWAH's approach has been changed from before, even though it is not yet stated in the document, the following presentations highlight the current understanding that NEWAH staff have regarding the implementation of its water projects. The sources of this information are both the guidelines and the discussions with various NEWAH staff.

First of all, NEWAH selects the districts which have scarcity of water as identified by Co-water Co. of Canada. In the second step, NEWAH makes a list of the NGOs which are functional in the selected districts, through the District Administration Office (DAO). NEWAH then corresponds with those NGOs and screens one or more depending upon the number of projects to be implemented in the district. The NGOs are selected using a number of criteria such as experience in community development activities, experience in the water and sanitation sector, legal status, and registration within the project district. The selected NGO(s) are then briefed about NEWAH and its activities. The NGO then makes a survey through PRA process in their areas, if they had not done it before, to identify the need of drinking water. The NGO is then asked to fill up a Project Request Form which explores information on the physical, social, technical, financial situation and other development activities in the proposed area and submits an application to the regional office of NEWAH for drinking water in their area.

After the projects are selected based on the information provided by the concerned NGOs a two person team, one man and one woman, from the regional office goes to the concerned project area to make a pre-feasibility and/or detailed survey. In areas which are already familiar, only a detailed survey is done. In areas which are not familiar, a pre-feasibility study is done before a detailed survey. The concerned local NGO co-operates with the NEWAH staff in the survey work. All wards in the VDC are surveyed spending about 10 to 15 days. Usually, NEWAH staff hold two large meetings during the survey work, one in the beginning and one at the end to present the findings of the survey work. All households are invited to attend these meetings. In the meeting, the local men and women are informed about how NEWAH plans to implement a project in the community, and what the project expects from the local men and women during the course of project implementation and afterwards.

To raise the community's feeling of ownership towards the project, NEWAH asks the recipient community to provide free of cost all required unskilled labour. This will include that for the transportation of construction materials from the nearest motorable road to the project site, unless this will require more than a day's walk, when they are paid some money, and provision of all locally available materials such as sand, aggregate, stone etc. in the construction phase. Further, the community is also informed at this time that NEWAH will not implement any project until the recipient community collects Rs. 400 per tub-well and deposits the total collected money in a bank and submits the evidence to the concerned regional office of NEWAH. This is done keeping in view the sustainability of the project after it is handed over to the local community, as the money is then to be used to purchase spare parts for the tube-wells installed.

In the second and the final meeting, discussion takes place about the siting of the tube-wells which is the main concern of the local people, especially women. Therefore, each household

is advised to send at least one man and one woman to attend the meeting. The project staff need to make sure that there is a good representation of women at the meeting. If the number of women is small, they have to wait, sometimes for several hours. The field staff are advised to consider the location, ethnicity and the culture while planning and holding such meetings so that women's presence can be increased. The meetings have to be cancelled if the presence of women is low.

At the same time, NEWAH also informs the concerned communities to register their water source with the District Water Resources Committee, which is under the Chief District Officer, so that there is no conflict in the use of the water source once the implementation work begins. To make the Project Management Committee (PMC) more accountable towards the people it is also made mandatory that two PMCs from each region are registered with DWRC every year. This gives the PMC legal status and the right to use the water source, and to initiate any other water related activities in the community. Registering itself with the DWRC is actually to give legal status to the PMC.

The report of the survey is then sent to NEWAH head office for final approval. In the mean time, the concerned staff prepare the final cost estimate at the regional office and send it later to the head office. If the cost per capita is £25 or less it is approved by WaterAid/Nepal otherwise it is sent to WaterAid/UK for final approval. Meanwhile, the NEWAH field staff are supposed to form a Users Group for each proposed tap-stand consisting of three persons, chairperson, caretaker and FHV. The next task would then be to form a PMC. In principle, the field staff encourage the local community to include at least some women in the PMC but, it is totally up to the community what composition they choose.

After the project is approved a formal meeting is called by NEWAH staff in the project site to form a Project Management Committee (PMC). Both men and women are invited to participate in the meeting. NEWAH staff and the local NGO staff facilitate the process of PMC formation. Their role is to encourage the local people to make it representative in terms of sex, location and ethnicity. The formation of the PMC is followed by agreements between NEWAH, the NGO, if any, and the local PMC for project implementation. Usually, the project period is of one to two years. A project which has up to 40 water points is defined as a small project and goes on for a year while the project which has more than 40 water points is defined as a big project and thus is implemented over two years. The actual time spent by the project staff in the field work, starting from the first meeting until the project is handed over is normally six months to one year, which is spent in doing pre-feasibility survey, detailed survey, PRA, health education activities and construction work. Health education activities are started about 3-4 months before the water supply activities. If the construction work is not started by then the community may think that NEWAH is not going to give water to them. To remove this feeling the project staff try to start the construction work as soon as possible. Further, the project staff have to meet their targets which they cannot do if they spend a long time in social mobilisation activities.

In the mean time NEWAH also arranges various training programmes for the community people as follows: project management training to the NGO co-ordinator for 1 month in Kathmandu and to PMC members for 5 days in the community; health education training to the persons selected by the PMC as health motivators and educators for 3 weeks and 1 week respectively; masonry and plumbing on-the-job training to 2-4 males selected by the PMC for 5-6 six days without pay, as these people are hired as paid skilled labourer when the

construction work is begun; and operation and maintenance training to the person selected as caretaker by the PMC for 3 days. To increase the efficiency of water points NEWAH has a policy of selecting one caretaker per water point; all the caretakers are given a set of tools after the completion of training. These basic training are further supplemented by refresher training as the needs arise in the future. All these training are provided by NEWAH staff.

Before initiating the implementation work, the NGO and the PMC should issue a notice to invite contractors to install the tube-wells and build the platforms. The rate is a maximum of Rs. 24 per metre for successful ones and Rs. 12 per metre for failed tube-wells. Similarly, Rs. 200 is paid per platform. The selection of the contractor is done by the local NGO, PMC and the NEWAH staff together. During the construction stage, all construction materials are provided by NEWAH while all unskilled labour required to install the tube-well and build the platforms is to be provided by the community. NEWAH provides one overseer on a full time basis to work with the local PMC until the construction is over. The monitoring of the project work is to be done by the local PMC, NGO and the NEWAH overseer. Even after the project is handed over NEWAH makes follow-up visits for two years, at intervals of six months, to make sure that the PMC is capable of running the project on its own even without NEWAH.

The senior officials of NEWAH admitted that there are big differences between the way the projects were designed and implemented in the past and now. While in the past the process was more top down, it is now very much people centred. Further, gender sensitivity was not given much consideration in projects in the past but this has been highly regarded in the projects that have been implemented over the last few years. When NEWAH officials were asked why they did not change their original guidelines they said that they are thinking about it but did not have time to do so, due to other work.

RWSSP: In the case of RWSSP, the water schemes are selected based on hardship criteria. First of all, District Water Supply Development Plans (DDP) are prepared for the drinking water sector for each district, based on detailed baseline data of the existing situation. Apart from providing information on the health, economic and water supply and sanitation situation in each of the districts they provide tools for decision makers for planning of sector activities. The survey also collects information on criteria used for determining water supply service levels. The criteria are: quality, quantity, accessibility, reliability and continuity. Based on these criteria the service level of the VDCs and of the smaller units, wards, is given a score and is categorised as good, acceptable, poor and very poor. The wards which fall under poor and very poor categories are listed as hardship areas and thus get priority while awarding drinking water projects. The wards which score 100 or more in Tarai fall under hardship categories and thus are selected for funding water projects and in the hills the hardship score is 150 and more. This mechanism of selecting projects offers an opportunity to make scheme selection without political biases. The detailed process of project selection is as follows:

First of all, a community which is in need of water submits a request to the DDC, along with a report of the feasibility study done with the help of a SO, and a recommendation of the VDC. The selected SO should have been short-listed by the DDC. Sometimes, some VDCs are selected by the DDC based on their hardship. For these VDCs the DDC looks for a suitable SO to do the feasibility study. The SOs are selected based on certain criteria such as: working experience of two years in the water and sanitation sector, has annual audited report, is registered and holds legal status, is from within the district and the zone. The selected SOs are then given training on PRA, community action planning, basic methodology on

implementing health and sanitation projects etc. Since the SOs often do not have all the required person-power in their payroll, they usually hire people from consulting companies and also from DWSO while implementing water schemes. The schemes for which a request has been received are screened on fixed criteria: the hardship should be more than 100 points as mentioned above and each scheme should not serve more than 2,500 in population.

After the first screening of the schemes, a feasibility study is done by the selected SO to assess the overall situation, including people's willingness to contribute cash, materials and labour for the project. If the scheme is found feasible then the DDC asks the concerned VDC for a financial commitment from its Self-Reliant Fund. After this, the DDC notifies the SO of the selected scheme to prepare a proposal for the preparatory phase and an agreement is made between the DDC and the SO for the next phase. In the preparatory phase baseline data related to the community situation, which is presented as maps, health and sanitation, socio-economic and technical data, are collected. While collecting baseline data a focus group discussion inviting at least 20 villagers, half of whom should be women, is conducted. The focus group should represent all ethnic groups as well as clusters to be covered by the scheme. In all focus group meetings, the number of women should be nearly half. Otherwise, the meeting has to be cancelled.

In the next step, the layout of new tube-wells is prepared in a mass meeting. A woman's meeting in each cluster will decide the location of the tube-wells. The SO assists in this process. The project insists that SOs should have at least one meeting with men and women separately before forming the WUC. Then a WUC is formed with the help of the SO. Half of the WUC members, including one in the position of Chairperson or Vice-Chairperson are required to be women. Balanced representation of all groups e.g. ethnic and from all clusters is a must in the WUC. Similarly, in all mass meetings and gatherings like those for PRA, the presence of an adequate number of women has been stipulated.

To make the local men and women feel accountable towards the project, the RWSSP asks the local community to contribute cash right in the beginning of the project, along with all unskilled labour. The amount to be contributed by the community was Rs. 500 per tube-well and Rs. 1,000 per tap-stand in Phase I. In Phase II, the users have to contribute Rs. 3,000 per tap-stand of which Rs. 1,500 is spent on construction and the remaining Rs. 1,500 is deposited in the bank for operation and maintenance. The VDC has to contribute Rs. 300 per capita and the rest comes from the joint fund of the government of Nepal and the government of Finland. In case of tube-wells, assuming that the cost per tube-well is Rs. 10,000, the project expects a 50% contribution from the community and the VDC, namely Rs. 5,000. The original understanding is that the community contributes Rs. 3,000 and the VDC contributes Rs. 2000 per tube-well. If the community/users have difficulty in paying that amount then the VDC can increase its portion of the contribution. In any case, the users will have to contribute at least Rs. 1,000 per tube-well. Regardless of the amount that users contribute per tube-well Rs. 500 goes to maintenance fund and the rest goes for construction.

After the formation of the WUC, a detailed technical survey is carried out to select the best technical option. The technical drawings will be made upon consultation with the users after the type of well and the platform size are decided. The preparation of quantities and the estimation of cost is done thereafter. At the same time, the users make a Community Action Plan (CAP) for material collection, cost contribution, procurement, operation and maintenance etc. which are needed to support a successful water supply and sanitation

scheme. During the preparatory phase, the SO organises training for the WUC on health and sanitation, bookkeeping, procurement, store keeping, taking minutes, gender issues and management. The SO also organises a workshop for female CHVs and Mother Groups on health and sanitation related issues. Once this is all done, and users and the DDC approve the details of the scheme, an agreement is made between the DDC and the SO for the implementation phase.

Before the agreement is signed, the SO has to make sure that the WUC is registered and has opened a bank account where the operation and maintenance fund together with the capital contribution is deposited. The SO then organises construction orientation for the WUC and a review workshop on health and sanitation for female CHVs and mother groups. School teachers and pump caretakers will be trained with the help of the DDC. A construction seminar will be held halfway through the construction activities. The WUC is responsible for financial management, procurement and implementation of the scheme. Users are involved in the construction activities by providing labour. The SO provides technical supervision and management support. Having the responsibility of the scheme from the beginning it is expected to have a highly empowering effect on the beneficiaries.

The final activity is the operation and maintenance of the scheme. The WUC and the users together are responsible for the operation and maintenance activities. The WUC will manage the operation and maintenance activities and the trained pump caretakers will assist in technical problems. Women are increasingly considered and encouraged for the post of caretaker; women are given priority when selecting people for the pump caretaker training. The project also has instructed SOs to include only women while forming sub-committees per each tap-stand or tube-well. The idea is to include one woman from every user household in such sub-committees. The role of such women's groups is to maintain cleanliness in the tube-well and tap-stand area and to inform the VMW when there is any problem at the source. To strengthen SOs' ability in doing all this the project is insisting that the SOs should have women in all their field based positions. Accordingly, the SOs which have more women workers are given more weight in the screening. The WUC is also advised to collect regular fees for the future operation and maintenance of the schemes.

It needs to be clarified here that the above project cycle management guidelines have been prepared mainly for Phases II and III. Though most of the steps proposed in Phase II were there in Phase I, what was missing in the latter was the gender component. The only step where gender was emphasised in Phase I was while forming a WUC, where the project requirement was to include at least two women. The other difference between the Phase I and Phase II is that the activities that are being undertaken by DDCs and SOs upon assistance from PSU and DSU in Phase II were undertaken by DWSOs upon assistance from the RWSSP staff in Phase I. One major reason for presenting the detailed project management procedures for Phase II is to show how the consideration of gender aspects has evolved in RWSSP over time.

FRWSSSP: Each sub-project of the FRWSSSP is operated in a two year cycle. To ease and systematise the implementation at the user level a step-wise procedure is followed which includes a request for water supply, need assessment and feasibility phase which is also known as social preparation phase, construction phase and operation and maintenance phase. The detailed steps to be followed under each of these major phases are as follows:

In the first phase, the requests for water and sanitation from rural communities are collected through concerned DDCs. The information required at this stage concerns population, ethnicity, current water points and associated problems, major health problems, possible proposed sources, number of meetings held to discuss water issues and number of males and females attending the meetings. This form is gender specific wherever applicable. This activity is followed by a need identification/pre-feasibility step (also called Sub-project Identification Study) to ensure that water is a felt need of the whole community and not of the few; that drinking water is a problem from all quality, quantity and accessibility aspects; and that the available source is appropriate, adequate and accessible. The Sub-project Identification Reporting Format has been designed in a gender disaggregated version. After this report is prepared projects are selected for detailed survey or implementation from amongst a number of projects whose feasibility has been carried out. Selection of the projects is based on departmental scoring criteria according to which the projects will be evaluated and prioritised for implementation. This is expected to make the project selection process clear, systematic and transparent. The concerned DDC is then advised which sub-projects have been selected for a feasibility study.

The next activity is to interact with beneficiaries to prepare them for a feasibility study, to orient them with project principles and strategies, and to find out about socio-cultural and health practices. Ensuring beneficiaries' participation at all stages of the project is also done in this phase along with agreeing on the source, and the design and implementation procedures. The other activities that are accomplished in this phase are conducting socio-economic, health and technical surveys including gender roles, using participatory research tools and techniques; preparation for training based on socio-economic and health data; development of indicators for monitoring and evaluation; and preparation of detailed designs of the system and cost estimation. Both the focus group discussion form and the health problem and status form to be used at this stage are gender disaggregated wherever applicable. The feasibility study team will comprise an engineer, a socio-economist and an overseer. The feasibility study is expected to be fairly detailed to the extent that it provides details on both the technical and the social aspects.

As a part of the feasibility study, a mass meeting will be organised to brief the community about implementation modalities, requirements to be fulfilled by the community and operation and maintenance issues. If women cannot participate in such mass meetings then the field staff are advised to hold meetings at the settlement level so that women can participate. To increase the community's feeling of ownership towards the project, the community is asked to collect Rs. 1000 per tube-well and to deposit the money in a bank. The purpose of this money is that the interest coming out of it is to be used for repair and maintenance of the scheme. Comments from beneficiaries, especially from women and weaker segments of the community, are encouraged. At the same time, a users' committee will be formed through a democratic selection process by the beneficiaries. This committee will provide signed letters of commitments on acquiring the required water rights for use of the proposed water source, voluntary labour contribution, nomination of VMWs and sanitation motivators, land facilities etc.

In the second phase, which is the social preparation phase, the project makes sure that the beneficiaries understand the project principles, ensures their commitment to abide by them through collection of deposits, selection of VMWs and volunteers, and forms a water users

and sanitation committee (WUSC). An appraisal is also done to reconfirm commitment, and to agree on the system, design and conditions. Basically, the detailed survey is done to estimate the total cost, detailed construction works, population and area coverage, design period, voluntary community contribution and operation and maintenance requirements etc. This detailed survey is carried out by an engineer, one overseer and other field workers. As in the feasibility study, a mass meeting is held and the community is appraised of the project activities and their duties and responsibilities.

A formal agreement is then made between WUC and the DWSO in the presence of beneficiaries which also includes beneficiary contributions in terms of what, when and how, along with other issues. A six day long training is then organised on the site itself, for WUC members, including village maintenance workers (VMWs) and community health volunteers (CHVs), on office management, book keeping, water use, hygiene education and sanitation and their roles and responsibilities. In the same phase, on-site training to women and youth volunteers on water use, health, hygiene and sanitation is also organised. Other community people such as family planning workers, leader of mothers groups and teachers also participate in the training. Finally, hygiene education and sanitation activities are carried out by women motivators and female health volunteers (FHVs).

The third, construction, phase begins with transport of construction materials and the initiation of construction work. The management and supervision of construction activities continues throughout the project period. The VMWs and the local school teachers are provided training in this phase. The hygiene education and sanitation activities continue as before. A Progress Monitoring Form has been designed to monitor the progress accomplished at this stage. Unlike other forms this form is not gender specific.

In the final phase of operation and maintenance of the completed schemes, the WUC is given a certificate of ownership of the system. The other activities that are envisaged at this stage are the collection of water tariffs, regular meetings of the WUC, occasional meetings between WUC and users, VMWs starting to work under the WUC, regular interaction between the WUC and the DWSO, and adoption of hygiene and sanitation activities by the community as their regular activities.

Regarding the project selection process the senior officials of the DWSS consider that the process that is being followed in the FRWSSSP is participatory. In ADB I and II projects, the DWSS used to implement projects directly using contractors. The community was not much involved. However, since ADB III and more in the ADB IV (FRWSSSP) the DWSS is playing the role of facilitator, while the community plays a major role in making decisions about the different aspects of the scheme.

APPENDIX 7

WOMEN'S INVOLVEMENT IN WATER SUPPLIES

This section presents information on the processes followed by the selected institutions namely, NEWAH, RWSSP and FRWSSSP, while implementing their water supply projects. The information presented here concerns the actual processes followed. Wherever appropriate they have been compared with the stated policies and procedures presented in Appendix 6. Such a comparison forms the basis of part of the analysis of the actual processes carried out in Chapters 5 and 6 of this thesis from a gender perspective. The sources of information presented in this section are shown in Table A7.1. The presented information has been categorised into three major groups: pre-construction stage, construction stage and post-construction stage as follows.

Table A7.1: Number of Group and Individual Interviews held at Community Level by Site

No. of Interviews\ Sites	Motipur	Magaragadhi	Gajedi	Hile
No. of group interviews with males	6	9	7	5
No. of male participants in each group	5-7	5-8	5-12	4-8
No. of group interviews with females	6	9	7	5
No. of female participants in each group	5-7	5-8	5-9	4-8
No. of male PMC members interviewed	2*	3*	11	6
No. of female PMC members interviewed	9	9	3**	2
No. of male caretakers interviewed	5	NA	2	2
No. of female caretakers interviewed	6	9	7	NA
No. of VDC officials interviewed	2	2	3	2
No. of NGO officials interviewed	3	4	NA	NA
No. of FHV/motivators interviewed	2	2	3	3
No. of tube-wells/tap-stands observed	6	9	30	11

Notes: * Since the PMC consists of only women in Motipur and Magaragadhi these numbers refer to male advisory board members
** Since there were one female WUC member and two female advisors, all three were interviewed
NA: Not Applicable PMC: Project Management Committee FHV: Female Health Volunteer

A7.1 Pre-Construction Stage

This section describes the procedures followed and the activities undertaken during the planning and the design phases of the selected drinking water projects.

A7.1.1 Formation of Water Users' Committee

NEWAH: Both in Motipur and Magaragadhi, which are inhabited mostly by squatters, there was severe scarcity of water. Local women had to collect water from ditches, rivers and a few communal hand pumps, which were all located at quite a far distance, spending about 30-45 minutes in one stretch. Some local men discussed this matter with Gramin Sewa Sangh (GSS), a local NGO, in case of Motipur and the local VDC in case of Magaragadhi. Since both the GSS and the VDC did not have funds with them to initiate any project they started to explore institutions which could solve their problem of drinking water. Meanwhile, they got to know about NEWAH, which supports water projects through locally based NGOs and approached them. In case of Magaragadhi, the VDC first contacted Mahila Punarutthan Samuha (MPS-women's rehabilitation group), a local NGO, briefed it about the drinking water problem and then the MPS together with the VDC approached NEWAH.

When NEWAH received requests from the GSS and MPS it asked them to fill up a Project Request Form and to carry out a survey in their areas to make sure that the drinking water was a real need of those communities. After the completion of these activities the two NGOs submitted their final application to NEWAH. Upon review of the application forms both the Motipur and the Magaragadhi projects were selected as alternate projects by NEWAH. As reported by NEWAH regional staff, when the other confirmed projects failed to meet NEWAH's criteria, the Magaragadhi and Motipur projects were selected for detailed survey, which was carried out by a two person team, with one member being a woman in each. These people spent about 9 days in Motipur VDC and 13 days in Magaragadhi VDC doing the detailed survey, including a PRA exercise. The PRA exercise included two large meetings, one in the beginning and one at the end, along with a number of small group meetings in both the communities. All households in the project area were invited to attend the two large meetings. In the first meeting they informed the local men and women about how they thought the project should be implemented in the community and what the project expected from them during the course of project implementation and onwards. Nearly, 453 people, 267 men and 186 women, from the project areas in Motipur and 300 people, 120 men and 180 women, from the project areas in Magaragadhi attended PRA meetings. The number of people participating in the ward meetings ranged from 49 to 140. The proportion of women was little less than half in all these smaller meetings in both the communities.

The overall purpose of the PRA exercise was to assess whether drinking water was a real need of the community and how could it be materialised, keeping in mind the water sources, local contribution, number of people who would benefit etc. In the second meeting, held at the end of the visit, the project staff presented the findings of the survey work to the local men and women. As reported by men project staff and the local women, the presence of women in both the meetings was reasonably good in both the communities (better in Magaragadhi) due to the presence of female project staff. In the meeting, some of the women, upon request from the female project staff, were reported to have been seated in front, but the majority of the women were seated at the back. Due to socio-cultural factors, women were quite silent in the meetings and hence from time to time, the female project staff had to request them to express their views. As reported by the local women, though the number of women in these meetings was good, still not all women from each location could come to attend these meetings, as the locations of the meetings was rather distant and they had a lot of work to do at home and there was no one to help them at home. The project staff did not hold any separate meeting with women in either project community.

During this process, a users' group (UG) consisting of three members, one chairperson, one female community health volunteer (FCHV) and one caretaker per tube-well was formed both in Motipur and Magaragadhi. While the composition of the UG members was mixed in Motipur, there were only women in Magaragadhi. The selection of the UG members was done from among the concerned users of each proposed tube-well in the presence of the NGO Co-ordinator, Health Volunteer, and NEWAH sub-overseer. The concerned local NGOs, GSS and MPS, co-perated the NEWAH staff in the survey work; the women's NGO in Magaragadhi and the men's NGO in Motipur guided the local people in the selection of the UG members, as reported by the local informants. After the completion of the detailed survey and reconfirming the need for drinking water, the project staff sent the survey report to NEWAH head office. In the mean time, they prepared the final cost estimate at the regional office and sent it later to the head office for final approval.

After the projects were approved by NEWAH head office, an understanding was made between the Regional Office of NEWAH, the local NGOs, and the local communities about implementing the projects. A formal meeting was then called by the local NGOs and NEWAH where all local people were invited to participate. The purpose of this meeting was to form a Project Management Committee (PMC) to look after the implementation of the project activities. In Motipur, altogether, 83 people, 45 men and 38 women, were present in the meeting while in Magaragadhi, 195 people, 139 women and 56 men were present. The number of women present in the formation of the PMC was much higher in Magaragadhi than in Motipur which can be attributed to the women's NGO in the former. In Magaragadhi, MPS consisted only of women, proposed to form a PMC composed of only women. A number of reasons were provided for this women's PMC. First, women are more dedicated and committed towards their work than men. Second, women are the ones facing the problem of drinking water so they will be more serious about the project than men. Third, women need to be brought forward in development so as to increase their confidence. NEWAH, which was trying to increase the number of women in its PMCs formed in other areas, welcomed this idea and accordingly a PMC including 9 women was formed in Magaragadhi in November 1995.

Not to disappoint males, the project staff advised the NGO, women's PMC and the local women and men to form an advisory board including males. The latter did so selecting 6 males to act as advisors to the PMC. Being impressed by the women's PMC of Magaragadhi, the project staff of NEWAH, while forming a PMC in Motipur, advised GSS, to form a PMC composed of only women. Accordingly, a PMC composed of only 11 women was formed in Motipur in September 1996, one year after the formation of the first women's PMC in the history of NEWAH, in Magaragadhi. As in Magaragadhi, an advisory board consisting of 5 male members was also formed in the same meeting in Motipur. In both the communities, it was reported that women were quite excited while forming the PMCs, when they knew that the PMC was going to have only women.

As reported by the local informants, the NGOs, whose presence was made compulsory by NEWAH, again played a key role in the selection of PMC members in both the communities, since the local people did not have a clear idea about the roles and the responsibilities of the PMC members and who would be best to be in the PMCs. Accordingly, a number of women members were selected by the local NGOs directly in both the communities. In the selection of other women also, as reported by the women PMC members and the local men and

women, the local NGOs suggested who would be best and no one liked to go against their proposal as they were going to be instrumental in bringing water to their communities. Looking at the composition of the PMC members in both communities and the discussion with both the PMC members and the other men and women it was found that those who were selected to be in the PMCs were relatively active, well-off, and close, either by relation or socially and politically, to the NGO members. Nonetheless, it was also reported that the women PMC members in both areas represented all users groups formed for each proposed tube-well and all project wards.

There has not been any change in the composition of the PMC as yet in Motipur. However, in Magaragadhi, there were some changes in the original PMC at the time the project was handed over to the local community. In the reformation of the PMC, some new women were brought to the PMC due to vacancies caused by some old members because of their marriage and mobility to other communities. This time the male advisory board members were all made the PMC members, making a total of 15 members, 9 women and 6 men, in the PMC. The reasons for this change, as reported by the women's NGO, are: i) the women PMC members had difficulty in keeping the minutes of meetings, ii) the women PMC members were of the opinion that when the male advisory board members were included in the PMC they would be more supportive of the PMC activities, iii) the presence of male members in the PMC can facilitate the administrative activities such as calling meetings, writing letters etc., iv) to appreciate the support extended by males when they were in the advisory board by bringing them in to the executive body, and v) to help men understand the roles and responsibilities of women both in the household and the community. When asked the reasons for this new change in the PMC, the women and men PMC members said it was mainly to get men's support in doing administrative and paper work, which they were not so keen to do while being only advisors, as they thought it was a women's programme.

At the time of research, all the selected PMC members were married in both the communities. Both the PMCs have nearly half Tharus as they are the pre-dominant ethnic group in both communities, and the rest are Brahmins, Chhetris, and minority class (tailors and blacksmiths which are traditionally known as 'untouchable' people). Five women PMC members in Magaragadhi and 4 women members in Motipur are literate, in the sense that they could just write their names with some difficulty; in case of males, however, all are literate in both PMCs. Neither of the PMCs has any policy about how long a person can be in any position in the PMC. The understanding among the PMC members is that they can continue as long as the NGO does not change them.

About women's new roles as a PMC member the local NGOs were asked what they thought about the increased work load of women as they are already so over burdened. The NGO people said that, though the involvement of women in committee activities has increased their work load, the motivation that they can learn something new from such involvement, they can contribute to the development of their community and that they, like men, have potential to participate in development work, led them to take these extra responsibilities. When the women members were asked how they coped with their double work they said they postponed the household activities for some time and do it after the project work is completed. In response to a question whether they can continue like this, the women PMC members said it depends upon a number of factors such as how much time they have to give, whether they keep receiving support from their husbands and whether there will be some

personal incentives for them to be motivated towards the project work. The reaction of the husbands of these women is that the project should think of giving some remuneration to women for their extra work and some activities need to be introduced from which the women can increase their income.

When the male focus group participants in both the communities were asked how women can be involved in such activities, when they already have so much to do, the response of almost all the male participants was that, when women are involved in activities, which generate income, their other activities can be shared by other people at home. Many of the male participants made it explicit that they themselves will be happy to help their women; some others also nodded their head in favour of this idea.

Until the time of the research, neither the Motipur nor the Magaragadhi project has been registered with the District Water Resources Committee (DWRC), and the Maintenance Section of NEWAH Regional Office also has not yet handed over the maintenance aspect of the project to the PMCs.

RWSSP: In ward 1 (Lausa) of Gajedi VDC, there was an epidemic of cholera in July-August of 1991, which made many people sick. Some people also died of this problem. A team from the District Public Health Office (DPHO) came to assess the problem. This team informed the local people that it was due to the water that they were using for drinking water purpose. A majority of the people in the whole VDC were using water from rivers, ditches and wells for drinking purpose until then. The DPHO team then advised some local people to contact the DWSO for improved water. They themselves also informed the DWSO about the problem of drinking water in Lausa and the urgency of providing safe drinking water to the people in this area. Some men from Lausa then contacted the DWSO which informed them to come with a recommendation from the VDC office. In the mean time, the DWSO informed the RWSSP about this problem as both these institutions were working as partners and situated in the same building. After the people from Lausa submitted their request along with a recommendation from the VDC, the RWSSP together with the DWSO, started their survey activities in Lausa. The people of ward 2 (Gajedi-Belbhariya) also had the same type of problem of drinking water. They were using ditches and wells for drinking water purpose. The women who were responsible for fetching water had to spend about 1-2 hours just for collecting one pail of water. Some men from Belbhariya knew about the development in Lausa and thus they also requested RWSSP for the same.

After receiving the request from some men of Belbhariya, the RWSSP informed them to contact the VDC and submit a request for all the wards through the VDC. The men did this. The VDC then submitted a request for all the remaining wards. The RWSSP then started its survey procedures in Lausa. The installation of tube-wells was first done in Lausa followed by a survey in Belbhariya. In the beginning, a team of three persons, two males and one female, came to the village to enquire about the water situation. They collected information about existing water sources such as ditches, ponds, tube-wells, etc. that were present in the village. The team travelled around the village by car and finished its activity in one day. After this activity, a team of two persons, both males, came for a feasibility study. This team spent three days in the village and explored the possibility of implementing a drinking water project in that community. This team informed the local people that one tube-well will be for about 10 households as per RWSSP policy; as reported by local women this team's contact was only with local men. The team advised these men to visit the RWSSP in Butwal to find more

information about its procedures. In the RWSSP the men were informed that the project was feasible and thus they have to collect Rs. 500 per tube-well for operation and maintenance of the tube-wells. After some time which is November 1991, another team from the RWSSP, consisting of two males, came for mapping and designing. They also spent three days doing the detailed survey. As before, this team's contact was also limited mainly with men; the team informed these men to form a water users committee (WUC) and collect Rs. 500 per tube-well. The team informed them that the implementation will begin once they deposit the collected money in a bank and submit the evidence to the RWSSP. Until this stage the local women's involvement in the project activities was almost nil.

The VDC officials and some local male leaders then called a mass meeting in Belbhariya. About 80-125 men and 12-20 women were present in the meeting. All villagers were happy about the progress made so far and hopeful that they would get drinking water soon in their village. Within a week of the first mass meeting a second mass meeting was called to form a WUC. Nearly 150-200 people were present in this meeting among whom 30-40 were women. The meeting was also attended by VDC officials but not by the RWSSP. The reason for the small numbers of women in both the meetings was that they had a lot of work at home and their husbands did not think it essential for them to join the meeting, leaving the household chores aside; the other reason was that the project staff also did not put emphasis on soliciting women's involvement in various activities accomplished until then and the same style was copied by the local men.

In the meeting, the villagers were divided by location and asked to select one that they thought is the best person to represent the WUC from their area. Aside from the geographic location the other factor that was considered while selecting the WUC member was ethnicity. Accordingly, 11 members representing 11 locations and 2 others for the post of chairperson and vice-chairperson were selected by the local people. When the villagers were divided into smaller groups as per their settlement, the number of women in each group was usually 3-4. In some groups, there were no women at all, as reported by the local informants. As a result, the selection of the representative from each location was basically done by men. Out of 13 members selected to be in the WUC, 2 were women, 1 Tharu and 1 Brahmin; they were selected by the local male leaders as they were relatively active by being in the position of FCHV in the community in other programmes. The WUC members reported that though they were not informed by the RWSSP to include women in the WUC they themselves decided to do so based on their past experience. One major reason provided for including women in the WUC was that these women can be effective in mobilising other women for project activities, if required, in the community and in maintaining cleanliness around the water source. The factors considered for the position of chairperson, vice-chairperson, secretary and treasurer were education and experience. The list of the selected WUC members was then sent to the RWSSP.

The reformation of the WUC took place after five years in October/November 1997. There were mainly three reasons for the reformation: i) some of the WUC members were inactive and not attending any meeting for quite some time, ii) one of the women members had died and her place was vacant (It might be interesting to note here that when a male member died about three years ago his place was immediately filled by another male, but, when a female member died, it was ignored), and iii) NEWAH had selected this village for its Participatory Action Research (PAR) study and when it came into the village in February 1995, it advised

the local people to reform the WUC as it saw that some of its members were inactive. When NEWAH was asked why it chose Belbhariya (this village is referred to as Gajedi here onwards as the water project is known as Gajedi Drinking Water Project) in the Gajedi VDC for its PAR study, since the RWSSP was working in this area, the staff of NEWAH replied that they were planning to develop one model village in each development region. When they got to know from one of their staff, who had formerly been working with the RWSSP, that Belbhariya was quite active and willing to participate in development activities, it decided to take this community as its pilot area. They also said that their intention was not to interfere in what the RWSSP was doing in the village but just to provide some more inputs on the software side, so that the WUC members could develop their skills and ability, which could then be transferred to other people in the community.

Accordingly, NEWAH took the WUC members plus some other villagers, all males, on an observation tour to other project areas. It also provided training on accounting, project management, fund raising and handling etc. to the WUC members. At the same time, NEWAH also advised them to prepare a constitution of their WUC and start collecting water tariffs.

In the reformation, a committee of 9 members, consisting of 8 males and 1 female, was formed. Among the 8 males, 4 were new and the only female in the WUC was also new. The selection of the WUC members was done as before. Nearly, 185 males and 45 females were present while reforming the WUC. The area was divided into nine locations and one person was selected from each of those locations by the concerned households. As before, because the number of women was small the selection of the members was done by men. The women informants said that their low presence was one reason why only one woman was selected by men to be in the PMC. The reasons for the low presence of women are: a majority of the women did not know about the meeting, the meeting place was far for some women, even those who knew about the meeting could not come to attend it as they had a lot of household work to do and there was no one to do the work in their absence, and the lack of importance given by the men in the household and community about women's contribution in the process. This time, the previous woman WUC member was not chosen to be in the WUC and the reason provided was that she was not active. While this woman member was contacted for her reaction she said that the male WUC members were biased against her as they had some conflicts with her husband who was formerly in the WUC. Instead, a new woman from the Tharu community was chosen to the post of treasurer in her place by the male members. Since the constitution of the PMC was not yet prepared, the term of the WUC members was kept open (though the verbal understanding is 2 years) until there is an objection against any member from the community or the rest of the WUC members.

One other change that occurred in the reformation was the provision of two women advisors in the WUC. When the WUC members, especially males, were asked why the number of women was only one this time, as compared to two before, and the reason for keeping two women as advisors, they said that the two women who were in the WUC before could not contribute much. Thus, in the reformation, the idea was to have only one woman in the WUC. Not to let women feel that they have been overlooked the males decided to keep two women in the post of advisors. The idea is that being in the position of advisors the women could still come to attend WUC meetings where they can observe the process and the activities of the WUC which they can then share with other women in the community. Being in the position

of advisors and attending meetings these women can play an effective role when the other women in the community have to be motivated for some project activities. At this time, the WUC also formed one group per tube-well to look after it. The group consisted of three to five members - one chairperson, one secretary, one VMW and the rest as members. In such groups, there is at least one woman either as a caretaker/VMW or as a member leading to a total of seven women caretakers and 30 women members; most of these women are from higher ethnic groups and relatively well-off households.

FRWSSSP: As in NEWAH and RWSSP areas, the people of Hile also had severe problems of drinking water. There were only 40 tap-stands to serve a population of nearly 8,000. At each tap-stand there used to be a long queue of pails and Gagris (a vessel that women carry putting it against their waist to transport water). As the flow of water was low at all tap-stands people had to spend 2-3 hours for their turn. One main reason for the serious scarcity of water in Hile is because it includes a bazaar area, where there are many hotels and tea shops. As this is the main shopping centre for people of Sankhuwasabha, Bhojpur and Terhathum districts in the eastern region, the demand for water is high, due to a large number of people coming for marketing. Hence, people in Hile also used to buy water from vendors who collected water from the nearby river, especially in the months of March, April and May. The cost of one pail of water was Rs. 10. Since the water from the river was of poor quality, the people especially children, were often sick with diarrhoea, dysentery, and other stomach upsets.

Owing to such problems, the local men filed an application, signed by hundreds of males, to various agencies such as DWSO, DDC, UNICEF, NRCS, NPC etc. A delegation from Hile also met the Minister for Water Resources. Somehow, the matter was also brought to the notice of the then cabinet. The local men were able to do all this as this area is situated near to the village of one former Prime Minister and thus they had some exposure already on such matters. Further, some big business men were also involved in the whole process of taking the problem all the way up to the cabinet. Finally, the cabinet instructed the DWSS to resolve the problem of drinking water in Hile area in early 1995. It took nearly a year and half to materialise the project.

After receiving the instruction from the cabinet, the DWSS advised the DWSO/Dhankuta to initiate the survey activities. Accordingly, one survey team consisting of two male technicians did the feasibility survey, spending three days in February 1995. Before starting the feasibility study the survey team called a meeting, which was attended by 40-50 people, mostly men, to inform them about the purpose of the survey, which was to enquire about the water situation. The survey team was assisted by the WUC which was already formed for other purposes. There was no woman member in this WUC as reported by the local informants. During the feasibility survey, the team informed the WUC that one tap-stand will be provided for about five households in the village area while it can be for many households in the bazaar area. The local people were also informed that they have to collect Rs. 1,000 per tap-stand and deposit it in a bank before receiving approval for the project. As reported by the WSST himself, women's participation during the feasibility study was nil.

In April 1995, two months after the feasibility survey, another team, consisting of three male technicians came for detailed survey. This team spent five days to do the detailed survey, with the assistance of 4-5 male WUC members; there were no women involved in this stage as before, as reported by the women focus group participants and the WSST of the project. This time also, the WUC was informed by the survey team about the two main criteria of the

FRWSSSP, one tap-stand per five households and the collection of Rs. 1,000 per tap-stand. Altogether, 11 tap-stands were surveyed under the project, since the project had given an option to the local people in the bazaar area for private connections with payment based on a metering system. As reported locally and by the project staff, 171 households selected this option in the bazaar area. The condition was that they collect Rs. 1,000 per household which will be deposited in the WUC's account and will be used to meet the cost of VMWs afterwards. Further, both the households showing interest to have private connections and the households with public tap-stands had to provide voluntary labour to dig the trenches for the main distribution line i.e. from the reservoirs to the tap-stand sites. In case of the households with private connections they also had to meet all the expenses from the distribution line to their households.

In turn, the WUC discussed the matter among the male members themselves. There was no difficulty to collect money from private users but it was difficult to collect money in case of the public tap-stands since half the tap-stands were to be installed in the bazaar area, where the tap-tands were to be used by unlimited users. If the money is not collected from the people of the bazaar area then it was difficult to collect money from the people outside the bazaar area. Hence, the WUC decided to refer the matter to the municipal office, which agreed to meet the cost of Rs. 11,000 for the 11 public tap-stands. Accordingly, the WUC started to collect money from the user households. After collecting Rs. 171,000 from 171 private users and 11,000 from the municipal office and depositing it in a bank the WUC informed the matter to the DWSO, the local implementor of the FRWSSSP. The DWSO then submitted the project to the RPMO and the CPMO for final approval. The project was approved by the CPMO for the fiscal year 1996. Accordingly, Rs. 200,000 was allocated for the project. Because the total cost of the project was nearly Rs. 4 million the DWSO did not initiate the scheme in 1996. It rather decided to start the scheme in 1997. Because there was a long gap from the time the scheme was approved the DWSO decided to do two things before implementing the scheme. They were: reformation of the WUC and a socio-economic survey and appraisal to reconfirm the scheme. This activity was carried out by two men spending 7 days. When the women group participants from various locations were asked about their roles in all these stages they said they did not have any roles to play and they did not know what was going on between some active men from Hile and the FRWSSSP.

The WUC was reorganised in June 1997. A mass meeting was called for this purpose where 100-125 men and 15-20 women were present; this was the first time the local women got to know what was going on about the drinking water in their area. The reasons for the small number of women present were reported to be the lack of information, a lot of household chores, and lack of emphasis shown by their male partners for them to come to this meeting. The main criteria thought of while selecting the members in the WUC was their political background. The males present in the meeting attempted to have member from all political parties in the WUC. The Mayor of Dhankuta Municipality was proposed as the chairman. Altogether, 13 members were selected to be in the WUC. As reported by the local women, they did not have any role to play in the selection of WUC members nor were they selected to be in the WUC, though the senior engineer, one overseer and one WSST from the DWSO were present when the WUC was formed. Out of 13 members, 7 were Tamang, 2 each were Brahmins and Chhetris, and 1 each were Sherpa and Newar. The reason for having nearly half Tamang in the WUC was because the community is predominated by Tamang. The list without women was then sent to the DWSO.

Regarding the tenureship of the members the understanding is that they will keep serving until a constitution is prepared specifying all rules and regulations of the WUC. In three months from the formation of the WUC, one member resigned and he was replaced by another male member. The new member was proposed by the male WUC members themselves. The name of the new WUC member was also sent to the DWSO. One condition that was put up by the CPMO before approving the project was that the WUC should also have women in its composition. The CPMO also advised the WUC to form one users' group per tap-stand, which the WUC agreed to do after the construction work is over. With this pressure from the CPMO, the male WUC members discussed among themselves and proposed names of two local women without consulting with them. Among the two women, one is a Tamang and the other is a Chhetri. When these women were asked for their reaction about this they said they were happy that they were included in the WUC but were disappointed as the males were deciding everything themselves, without paying respect to women's views. They said they did not know for months that they had been selected to the WUC. These women WUC members knew the names of only two WUC members, the chairperson, who is the chairperson of Dhankuta Municipality, and one other male member, who is the ward chairman; they did not know the names of the other 9 male WUC members.

A7.1.2 Siting of Tube-wells

NEWAH: The design of the tube-well and the platform was already fixed by NEWAH as per its regular standard; there was no input solicited from local people, especially women since they use the tube-wells more than men, at this stage. As a result, one complaint made by a majority of the women focus group participants is that they have to bend a little bit more than they would wish to pump the water, as they found the handle of the tube-well pumps rather longer than is convenient for their height. As a result, they reported pain around their back and the waist. The number of tube-wells was also fixed following NEWAH's standard criterion of 10 households on average per tube-well though local people, especially women were not in favour of this criterion. On the other hand, the selection of sites was done together by the NEWAH overseer, the local NGOs, GSS and MPS, and the UG through a PRA mapping exercise. Though the presence of women from user households was emphasised at this stage, it was reported that the NGO members (males in Motipur and females in Magaragadhi), the male advisory board members and local men users played key roles in deciding the location of the tube-wells.

Altogether, 21 tube-wells in Motipur and 80 tube-wells in Magaragadhi were proposed keeping in view the criterion of 10 households on average per tube-well. The PMC members, local men and women and the NGO staff reported that they were not fully satisfied with the proposed number of tube-wells as they were not enough for them. However, because the project staff kept on insisting that they have to maintain the 10 households per tube-well criterion, the local men and women had to agree with the proposed number with resentment. In effect, many households in the VDC, especially poor and female-headed, that represent the minority class such as blacksmiths, tailors, cobblers etc. which have dispersed settlement, could not meet this criterion and thus were left by the project. The women from these households still have the same problem of water as before. This led to a lot of confusions and conflicts while fixing the number and the location of tube-wells in both the communities, which were resolved with great difficulty by the local NGO staff and the other local male leaders. Yet, the poor, vulnerable women complained that the siting of tube-wells was not in favour of them as neither were they invited to contribute to this stage nor could they

contribute land to receive the favour of the project staff to have tube-wells installed in this piece of land near their homes. As a result, they have to walk further (20-25 minutes) than others (5-8 minutes) to fetch water.

RWSSP: In Gajedi also, the WUC members reported that the design of the tube-well was already fixed by the project and here also, the local women reported pain around their waist and the back due to the handles of the tube-wells being long for their height, as in NEWAH projects. The number of tube-wells was decided considering 10 households on average per tube-well leading to a total of 24 tube-wells. Because of this criterion, a number of households have been deprived of an improved water facility and some have to walk relatively longer than others. As in the case of NEWAH projects, here also, the poor marginalised households from the lower ethnic groups like Chamar and blacksmiths could not voice their concern for tube-wells in their locations as neither were they able to form groups of 10 households nor were they able to contribute their land for the installation of tube-wells which might have helped to a certain extent. Because of their poor socio-economic status they could not afford to build their houses in the centre of the community but in an isolated place which is relatively distant from other households.

As reported by both the male and the female users in the focus group discussion the decision about the siting of the tube-wells was done mainly by males, as the number of women present in the discussion was very small as they were busy in their own household work, and the project staff as well as the local men also did not pay much attention to this matter. When the female focus group participants were asked whether they were satisfied with the males' decision all of them said 'yes'. The reason was that no woman had to walk for more than 5-10 minutes to fetch water, as the households were not so far apart from each other. Thus, they were not concerned about the exact location of the tube-wells. For them what was important was to get water as soon as possible, since they had been spending nearly 1-2 hours to collect water at each journey.

However, the discussion with the females from the lower ethnic groups and female-headed households revealed that their representation in this process was nil, as they had no men in their households to join this activity and they themselves could not go as they had a lot of work to do for their hand-to-mouth existence. As a result, they are still spending nearly 25-30 minutes for collecting water. Similarly, a poor woman from the lower ethnic group called Mallah in Gajedi water project in west Nepal remarked with frustration that "she and many other women from her ethnic group still spend one hour collecting water in one stretch while the women from the higher ethnic groups have been able to install the tube-wells right in front of their homes. She further said that such a discrepancy makes her feel as if the women who are not getting benefits of the improved water services should do something to the tube-wells so that all women are then on equal footing in the community."

FRWSSSP: The design of the tap-stand and the platform was as per the standard of the DWSS. The WUC was involved while preparing the design of the scheme by the project team. The selection of the location of reservoirs, intakes and tap-stands was done mainly by the male WUC members since the female members were hardly invited to come to the meetings. Even when they were invited it was difficult for one of the female members as she was living far from the location where the meeting was usually held. This meeting place was convenient for the rest of the members as they all came from within the same vicinity. After selecting the location the male WUC members contacted the concerned landowners to request

them to register the land to be occupied by the reservoirs, intakes and the tap-stands in the name of Dhankuta Municipality. The idea was to register the land in the name of the Municipality in the beginning and then in the name of the WUC afterwards. Altogether 11 tap-stands were surveyed. In the villages, the criterion of 5 households per tap-stand was considered while deciding about the number of tap-stands, but, in the bazaar area, the male WUC members discussed among themselves and decided that 6 would be enough. In neither case were the local women consulted while fixing the number of tap-stands, as reported by the female focus group participants. When the male WUC members were asked why women were not consulted they said there was no need for it as their presence would not make any difference in what they decide.

The other decision that the male WUC members made this time was the formation of a sub-committee, called construction committee, with only 6 members, all males, so that there is no problem of the lack of quorum, since they had to frequently meet to solve several issues. While the selection of the water sources, design of the scheme, preparation of cost estimate and the decision about the number of tap-stands was done by the old WUC, all other activities related to construction and the selection of people for different kinds of training were done by the new WUC. The construction committee used to report the progress to the main committee from time to time. When the male WUC members were asked about the role of female WUC members they said these women can be useful in motivating other women to maintain cleanliness around the tap-stands; neither the local project staff nor the male WUC members saw any other role that women could play through their participation in project activities.

A7.1.3 PMC/WUC Meetings

NEWAH: The first meeting of the women's PMC was held on the same day when it was formed in both the communities. The meeting concentrated on how the project should be made successful. The other issues discussed in the meeting were: date for starting installation of tube-wells, selection of contractor etc. Both the male advisory members and women PMC members were present in this first meeting. There was no conflict or disagreement on any issues discussed in the meeting among the women PMC members and the men advisory board members. In one of the planning meetings, the women's PMC of both Motipur and Magaragadhi decided to meet at least once a month during the project implementation period. The issues discussed by the women PMC members in the subsequent meetings were: review of progress, selection of FHV for training, cost allocation for different activities, requests for material from NEWAH, requests for funds, opening of bank account etc.

In most cases, the PMC meetings were attended by all women PMC members and men advisors in both the communities. The meetings were supposed to be attended by the respective NGO Coordinator in both communities and the project staff assigned to work in those communities. In meetings attended by the NGO staff, the leading role was played by the respective NGO Coordinator, followed by the male advisory members in both the communities, as reported by the women PMC members and the project staff. The women PMC members in Magaragadhi were reported to be slightly more active than the women PMC members in Motipur which is due to the female NGO Coordinator in the former case. The minutes of the meetings were all kept by the secretary of the respective PMC with the help of one of the male advisory members.

Of the last 10 meetings that were scheduled in Motipur three were not held due to the lack of quorum. In one meeting, the NGO Coordinator could not attend the meeting. As a result, this meeting did not last for more than an hour, indicating women's PMC members' dependence on the NGO staff. Similarly, in Magaragadhi, the last meeting held in June 1997 was attended by all 9 women PMC members and 6 men advisory board members. One major decision taken in this meeting was the collection of Rs. 10 per month as water tariff from every user household. In Motipur, there was no meeting held after May 1997, the time when the project was handed over to the PMC. One decision that was taken in this meeting was the collection of water tariff at the rate of Rs. 10 per month per user household.

The reasons for not holding any meeting after May/June 1997 in both communities were two: lack of any issue to discuss in the meeting and peak agricultural season. While discussing with the other people it was found that one other reason for not holding the meeting was that the people had already received water and since there was nothing serious to discuss they were not holding any meetings. The PMC members including the chairperson said that the next meeting will be held when some problems emerge or there are important issues to discuss.

Sometimes, the women's PMC in both the communities also invited some guests to attend the meetings if they had to discuss some important issues, such as selection of people for training, opening of a bank account and selection of contractors. Discussion with the women PMC members and the NGO officials indicated that the meetings were always called by the NGO in both the communities. Regarding women PMC members' ability in making decisions in the meetings, it was reported by all the key informants, NGO officials, male advisory board members and the women PMC members themselves, that they were a bit reluctant and less confident in initiating the discussion and taking major decisions. Hence, the initiation of the discussion was mostly started either by the NGO officials or the male advisory board members. The women members spoke only when they were requested by the other men. It was also known that the male members would propose something in the meeting and ask the women present in the meeting for their comments. The women did not make any alterations to the proposal offered by the male members mainly for two reasons. First, because the water was the need of both men and women the latter thought that the decisions made by men will always be in line with fulfilling that need. Second, the women were fearful of taking major decisions as this was the first time that they had opportunities to attend meetings sitting together with men. Even if women appeared less active in taking major decisions their attendance in all meetings was high, as reported by the local informants and the NGO Co-ordinator.

RWSSP: The first meeting of the WUC was held on the same day when it was formed. The main agenda point of the meeting was how and when the tube-wells are to be installed. All the WUC members, including two women, were present in this first meeting. There was no conflict or disagreement on any issues discussed in the meeting between the men and women WUC members. One major decision taken in this meeting was about holding WUC meetings every month and this is being achieved to date. The times when the meeting is postponed for some time is during the planting season, when everyone has to be busy in their farming activities. The issues discussed in the meetings are: progress made in the installation of tube-wells, people's participation in project activities, collection of water tariffs, selection of VMWs, FCHVs, and latrine builders, the tube-wells requiring repair, maintenance of tube-

wells etc. All WUC members were keen to attend meetings until the completion of installation of tube-wells. After then there has been some slackness from the WUC members in attending meetings though the meetings are still being held regularly. Five members have to be present to make major decisions. Until now no meeting has been cancelled due to the lack of quorum.

When major decisions are to be made the practice is to invite community people, at least one person from each household, to attend meetings. The WUC is not, however, concerned about the sex of the person attending the meetings from the user households. Hence, it is always males who mainly attend meetings. Women come to attend the meetings only from the households where males are temporarily absent or not present at all. After its formation, the WUC held three mass meetings. One mass meeting was about the selection of VMWs for the 24 tube-wells installed in the community. The suggestion to select the VMWs came from the project. The mass meeting, attended mostly by men, selected 4 male VMWs to look after 24 tube-wells. Another mass meeting was called when the project suggested to the WUC that they should select female CHVs to implement health and sanitation activities in the community. In this mass meeting, the villagers selected three FCHVs. The last mass meeting, which was again called as a result of the suggestion of the project, was to select people to participate in latrine construction (ring building) training. The meeting selected 4 men for this activity.

In the meeting of February 1997, the WUC decided to hold its scheduled meeting on the fifth day of every month. Since then the WUC is meeting regularly on the same day. Accordingly, the researcher attended one meeting scheduled on 19 June 1998. The process observed in the meeting was as follows. The meeting intentionally coincided with another meeting related to the collection of water tariff. The WUC in consultation with the local people had decided in one meeting that the amount collected as water tariffs, which was Rs. 2 per user household per month, will be lent to people at the interest rate of three per cent per month. The loan should be paid every month and can be retaken if there are no new requests and the collected amount is adequate to entertain all requests. The people who came for this purpose were also present in the WUC meeting.

Since the meeting time for both activities was fixed from 12 to 3 p.m. the people started to come from 12 p.m. The activity related to loan disbursement and repayment started when there were 29 people, 8 males and 21 females, present in the meeting. The higher number of women was an indicator that women have the responsibility of paying the water tariffs. The people present then started to repay their loan as well as request for new loans. The WUC had made a rule that if anyone fails to repay his/her loan by 3 p.m. he/she will have to pay a fine at the rate of five per cent per day in addition to the principal and the interest until the loan amount is clear. It was interesting to observe that the total collection was Rs. 10,417 while the request for loan was Rs. 13,200. There was a lot of discussion about how to entertain all requests since the collection was less than the request.

When the discussion on the loan was going on, the WUC decided to start its regular meeting. Altogether, 5 members, 4 males and the only one female, were present in the meeting. The meeting was started at 2 p.m. First of all, the members decided about the agenda of the meeting that were: i) collection of water tariff from the defaulters ii) construction of the WUC building iii) monitoring of the latrine construction iv) finalisation of the WUC constitution v) the lack of presence of some WUC members in the meeting and vi) discussion on the

application of local people about problems that had arisen in their tube-wells. The discussion on the first agenda point was started by the female member. She reported that the users of tube-wells nos. 11 and 12 had said that they cannot pay the water tariff. In turn, the WUC decided that if the defaulters do not pay the water tariffs in the next two weeks they should be prevented from using tube-wells.

About the second issue of WUC building construction all members felt that they were having problem to hold their meetings due to not having their own building. They discussed the difficulty of holding meetings in the rainy season. The said meeting was also held in the open in one user's courtyard. Hence, the members decided to start the construction of the building after the planting season. Regarding the latrine construction, each member reported the progress made in their vicinity. It was interesting to note that the latrine construction activity was complete only in the female member's area but not in others. The chairperson thus instructed the other members to motivate the people who had not yet built their own latrine. He also insisted that the users who do not build their own latrine should be stopped from using tube-well.

The next discussion was about the finalisation of the WUC constitution. It was felt by all that the lack of this document was preventing the WUC from taking action against the defaulters. The task of registering the document at the DWRC at the CDO office was taken by the chairperson. However, because of his father's sickness leading to ultimate death he had not been able to give time for this activity. He further said he still cannot give time for another 2-3 weeks. Hence, he felt that it was better if the remaining task is taken by some other members, but, no one in the meeting volunteered on this proposal. Everyone was reluctant to take up this matter. On the discussion of another issue about the lack of presence of the WUC members in the meeting it was decided that any member who fails to attend the meeting without prior notice, three time in succession, would be expelled from the committee. Finally, the WUC discussed one application related to the repair of tube-wells. The women users of some tube-wells reported that there is no water coming from their tube-wells. Thus, the WUC should do something about it. In turn, the chairperson said that the WUC had only Rs. 10,417 while the installation of one tube-well alone costs around Rs. 10,000. The matter should thus be taken to the VDC. In the mean time the users should also think how much they can contribute from their side. He also said that some money can be given from the main operation and maintenance fund. The women users were not happy with the way their request was handled by the WUC.

Overall, the meeting was led by the chairperson. Since the chairperson's arguments were very logical the other WUC members could not oppose him. At times the chairperson was also seen imposing his ideas upon others. Out of 5 members, three males including the chairperson were dominating the discussion. The other two members, one male and one female, were somewhat quiet. On the financial matters, the female treasurer was helped by other villagers. It was reported that usually the female member is assisted by her husband in keeping record of the financial matters. However, on this day, since her husband was not present in the meeting she was assisted by other neighbour. Interestingly, when the discussion was still going on, the husband of the female treasurer appeared in the meeting and proposed that his wife should be removed from the position of treasurer as this task is too complicated for her due to her lack of education, but, the other members did not like this idea and insisted that she should continue as the treasurer.

After the meeting was over, an attempt was made to find out the names of defaulters. Subsequent discussions were held with two defaulters from whom it was found that most of the defaulters are women from either poor or female-headed households, and most of them are from lower ethnic groups such as Mallah, blacksmiths etc. Both of these women defaulters were poor and had the problem of a hand to mouth existence. One had three children and the other had two. The small piece of land they have is not enough for their survival. As a result, they have to work in others' farm or houses for wages in kind. When they were asked to react about the WUC's decision of not letting them use the tube-wells if they do not pay the water tariffs in the next 15 days, they were puzzled with regard to what they were going to do if they are indeed not allowed to use the tube-well.

Likewise, since the meeting was not attended by the 2 women advisors of the WUC, they were also contacted to find out the reasons for their absence. They reported that "they have attended only one out of ten meetings of the WUC held last year as the meeting place was far and there was no one to share their work at home. Their husbands support them to participate in such meetings but they do not realise that their wives cannot do so if they do not share their work at home. The projects should therefore focus more on how to motivate men to share women's work rather than spending time in involving women in project activities which is never meaningful without men's sincere co-operation".

FRWSSSP: In Hile, the former WUC meetings were attended only by male members as there were no women in the WUC. The design of the scheme was almost completed during the time of the old WUC itself. The basic agenda of the meetings used to be the collection of money from user households, opening of bank account, selection of motivators, VMWs, CHVs etc., selection of locations for reservoirs, intakes and tap-stands, and the beginning of construction work etc. The minutes of the meetings were taken by the male secretary. At times when some important decisions, such as the selection of VMWs, motivators and CHVs were to be made, the WUC used to invite some guests, always men, to the meeting. There has not been any change in this situation even after the formation of the new WUC. When the male WUC members were asked why they were not inviting women to the meetings their response was that women have no time to come to the meetings. Moreover, even if they come they are mostly silent. When the women present in the focus group discussions were asked to react to this matter they said that if they were invited, some of them, if not all, would have managed their time somehow so as to attend. Regarding the contribution also, they were of the opinion that men do not pay attention to what women suggest, but, if the same suggestion is given by men that is given greater weight.

Regarding the attendance in the meetings, it was reported by the male WUC members that it was a problem. Since June 1997, the time when the WUC was formed, it met 5 times, and after the construction work began in January 1998, it met 6 times. However, because most of the members are involved in some sort of business, they do not have much time to come to the meetings. Also, the male members said that the women members rarely participate in the WUC meetings. They further said that lack of women's attendance in the meetings, and busy schedules of the male WUC members, were the reasons why they had to form a sub-committee of only 6 members to carry out project activities. In the main WUC, since there were 13 members, there had to be a quorum of 9 members, while in the sub-committee, since there are only 6 members, only 4 can meet the quorum. The male members further said

because the women do not have time, they decided not to include women in the sub-committee.

When the two female WUC members were consulted for their opinion on this matter they said that it is true that they have not attended many WUC meetings, but, the main reason is not because they are not interested or have no time, but because they never know the meeting dates. They think their names were put forward only as a token to meet the project requirement. As a result, they are never invited to participate in any meetings nor are they included in the sub-committee formed to monitor the project progress. The researcher also feels that women are not usually informed about the meetings because when the researcher informed the chairman of the study ward, who was also a member of the WUC, to gather the WUC members for a discussion, only male members were gathered. As a result, the researcher had to contact the female WUC members separately. Interestingly also, the female WUC members knew about the sub-committee of 6 members only after meeting the researcher.

A7.1.4 Financial Arrangement

From the discussion with the project staff of NEWAH and the RWSSP it became clear that one condition that the recipient community had to meet was to agree to provide all unskilled labour required to transport and carry materials from the nearest motorable road to the project sites. (In case of NEWAH the cost of such labour should be equivalent to Rs. 1,000 to Rs. 1,500 per tube-well.) The remaining cost of the project will come from the concerned institution. Another condition was that the local water committee should collect Rs. 400 per tube-well in case of NEWAH and Rs. 500 in case of the RWSSP (the RWSSP has different arrangement in the second phase) and deposit the money in a bank. Only after producing the evidence of depositing the money in a bank will the local water committee receive money directly or through the local NGO whichever is applicable.

Regarding the collection of Rs. 400 per tube-well from the user households in case of NEWAH and Rs. 500 in case of the RWSSP the concerned NEWAH and RWSSP officials were asked how they decided about this figure and whether they think all user households will be in a position to contribute that amount of money. In response the concerned officials said that compared to many other institutions the amount that they have decided is not high. The purpose of this collected money is to buy some spare parts for the tube-wells and put some money in a bank to be used for the future operation and maintenance of the tube-wells as required. They further said that because the water is now being considered as something which is a finite resource and thus should be treated as an economic good it is not good to give the project free of cost to the people. Moreover, since it will not be possible for the institutions to keep on spending money for the operation and maintenance of the systems they ask the communities to make some contribution so that they take care of the project as it is not something that they received free of cost.

In case of NEWAH, the staff informed the local NGO of both Motipur and Magaragadhi about the conditions right in the beginning, when the latter contacted the Regional Office for the project. They also informed the local community about this condition in one of the planning meetings. In case of the RWSSP also, the project staff informed the local WUC about the condition right at the beginning. As reported by all the key informants - the project staff, the women PMC members and the NGO staff in case of NEWAH and the WUC

members in case of the RWSSP, and the local men and women in both NEWAH and the RWSSP communities - the local people would not object to this condition if they wanted a project from those agencies. In the focus group discussions with males and females from different locations it was found that there were naturally some households, especially female-headed, who were poor and thus did not like the idea of contributing Rs. 400-500 per tube-well as they did not have cash available. However, because they were not going to get the projects without collecting this contribution they had to ask for a loan from other households and they had to work even harder than before to pay back this loan.

An agreement was then made between NEWAH and the local NGO and the PMC of Motipur and Magaragadhi and the RWSSP and the local WUC of Gajedi. It was also agreed that the concerned users group (UG) of each tube-well, and the woman PMC member in case of Motipur and Magaragadhi, and the concerned WUC member in case of Gajedi, will be responsible for mobilising the labour required to install that particular tube-well and collecting the contribution from the user households. Accordingly, the UG and the concerned woman PMC member of both Motipur and Magaragadhi and the WUC of Gajedi collected Rs. 400 and Rs. 500 from the user households of each tube-well respectively. In all communities, the cash contribution was made equal for all the user households depending on the total number of households using a particular tube-well. Normally, it was Rs. 40 per user household in Motipur and Magaragadhi and Rs. 50 in Gajedi. The poor women from female-headed households again expressed their dissatisfaction that the project and the local men did not consider the number of persons in the family, the number of income earners in the family etc. before deciding that the contribution should be equal from all.

Altogether, it took the concerned PMC two months to collect Rs. 32,000 for 80 tube-wells in Magaragadhi and 18 days to collect Rs. 8,400 for 21 tube-wells in Motipur. The PMCs then deposited the money in a local bank and submitted the evidence to NEWAH Regional Office. In case of Gajedi, after the collection of money from the user households, Rs. 12,000 for 24 tube-wells, some of the WUC members, all males, went to the RWSSP with the money collected. One RWSSP staff took them to a local bank to open an account and deposit the money. The voucher was then submitted to the RWSSP.

The financial arrangement was slightly different in case of FRWSSSP as it was implementing gravity flow schemes. In FRWSSSP, the condition that the local community had to meet, concerned the provision of labour to dig trenches and the collection of Rs. 1,000 per tap-stand to be used for future operation and maintenance of the schemes. These conditions had to be met by both types of households, households opting for private connections and households opting for public tap-stands. Accordingly, the local community were informed about the conditions at the time of both the feasibility study and the detailed survey. As reported by the local men and women informants they did not have any objection with providing labour for digging trenches but had some reservations about collecting Rs. 1,000 per tap-stand, which was, hence, met by the municipal office, as mentioned earlier. Regarding the issue of collecting Rs. 1,000 from general users, the FRWSSSP officials were asked about their opinion. In response, they said the repair and maintenance cost of gravity flow schemes is much higher than that of tube-wells. Hence, the amount to be contributed is a bit higher than the contribution for tube-wells. Concerning whether all user households, including poor and female-headed, will be in a position to pay Rs. 1,000 per tap-stand, the officials, without

showing any concern to gender roles, said that those who cannot pay have to borrow money from others if they want water.

In the mean time, the project staff of NEWAH, RWSSP and the FRWSSSP prepared the final cost of the project back in the office. Once the total estimated cost of the project was prepared and approved by NEWAH and WaterAid in case of Motipur and Magaragadhi, the RWSSP in case of Gajedi and the RPMO and CPMO in case of Hile, it was then informed to the local water users committee (through the NGO in Motipur and Magaragadhi and directly to the WUC each in Gajedi and Hile). None of the women PMC members in any community has a clear idea about the cost of the project.

A7.1.5 Training

NEWAH provided four types of training to the local people and the women PMC members of Motipur and Magaragadhi. They were: project management training to the women PMC members and the NGO Coordinator, sanitation training to the women health motivators, volunteer training to the FHVs, operation and maintenance training to both the men and women caretakers. A total of 14 men and 31 women were trained on these four types of training in Motipur and 240 women were trained in Magaragadhi. The duration of the training was as follows: project management training-four days, sanitation training-14 days, FHV training-7 days and operation and maintenance training-2 days. There was no training on gender issues provided to the PMC members. All the training courses were arranged in the local school and the local veterinary office. As reported by the trainees, they did not have problems to attend them as the venues were not far from their homes though at times women trainee had difficulty in reaching the training place on time due to household chores. However, they were happy that the training was normally started when all women arrived. The trainees found the training techniques quite useful as they included both theoretical as well as practical lessons which were relevant to what they were doing in their daily lives and how they were doing them.

In case of Gajedi, the RWSSP provided three types of training to the local people namely, operation and maintenance training, health volunteer training and latrine construction training. The operation and maintenance training was provided to four VMWs, all males selected by the WUC, for two days. The training was provided in ward 7. Similarly, the CHV training was provided to three women for 10 days. This training was arranged in a local school. Finally, the latrine construction training was provided to four males for 10 days. The main responsibility of these persons after receiving the training was to assist the other people who will be interested to build latrine in the community. Regarding a question on whether the project had given any instruction about the sex of the person to be selected for FCHVs, VMWs, and latrine construction training it was reported by the project staff as well as the local women and men that the project had indicated females for the first position and males for the last two positions, and the WUC selected people for these training courses accordingly. This issue of selecting males for technical training and females for software training has been challenged by the women focus group participants arguing that this has reduced women's chances of earning income.

In addition to these training activities, RWSSP also organised some observation tours for the local people to enhance their skill. In November 1994, two FCHVs were taken on a one week observation tour to Kathmandu. Similarly, in September 1995, four WUC members, all

males, were taken on an observation tour of the Eastern and the Central Development Regions for 10 days. None of the training provided to the local people dealt with gender issues.

In case of Hile, the FRWSSSP provided five types of training to the local people. The first one was pre-construction training to all 13 WUC members including 2 women for 6 days in Hile itself. The participants of the training think that they will be given another 6 days training after the construction work is over. They were given Rs. 50 plus snacks during the training period. The second type of training was about water and sanitation to female motivators and 3 FCHVs for 7 days in Dhankuta. The female motivator was given Rs. 100 plus snacks during the training period while the other 3 FCHVs were given only snacks which developed some misunderstanding among these 4 women coming from the same community, for almost the same type of work as they perceive it. This confusion has even increased when the FCHVs got to know that the motivator is paid Rs. 200 per month until the construction is over. When the female motivator was asked about it she said she has no idea about the duration that she would be paid. The third type of training was on operation and maintenance to 2 VMWs, both males, for 10 days in Dhankuta; these male VMWs were given Rs. 100 per day during the training period. These VMWs are expected to attend on-the-job training until the construction is over. After that they will again be given 35 days training at the DWSO, Dhankuta. The fourth type of training was about latrine construction to 2 males for 7 days in Dhankuta. After the training the trainees are expected to help build the latrines of those people who will be interested to have their own latrines. These male latrine builders were paid Rs. 100 plus snacks during the training period. The last type of training was provided on health and sanitation to 5 teachers, 3 females and 2 males, for 7 days in Dhankuta.

As reported by the male WUC members the selection of motivators, FCHVs, VMWs and latrine builders was done by the WUC. Educational qualification, activeness, involvement in social activities and age were the basic factors considered while selecting these people. Interestingly, when the motivator, FCHVs, VMWs and latrine builders were asked about their selection they all said they got to know about it when they were invited to attend the respective training. One more thing that came out of the discussion with the woman motivator and the FCHVs was that the motivator and one of the 3 FCHVs were from outside the project area. As a result, they were not visiting the communities on a regular basis. Moreover, all the motivator and the FCHVs were unmarried which meant they can leave the community any time when they get married. When the FRWSSSP officials were asked about this they said that the selection is made by the WUC so it is their responsibility to think who will be the best for them. The WUC's reaction on this matter is that they overlooked these facts while making the selection. Thus, the DWSO is now thinking of involving itself in the selection of such people in the future.

A7.1.6 Baseline Survey

In Motipur and Magaragadhi, a baseline survey was conducted to find out the health and sanitation situation before starting the construction work. The collected information is not gender sensitive as the form was designed to collect information only on health and sanitation aspects and thus was administered to women only. However, the project staff informed the researcher that they usually try to interview both men and women of the households while administering the baseline form. If they were not able to interview both the men and women

together they would then interview only women. In case of Gajedi, the WUC members reported that the baseline data has been collected only on the technical aspects of the project but not on the social aspects. Two males were involved in doing this baseline survey. This information could not be verified with the project as two staff of the DWSO who were involved in the project had quit the project. There was no information available on the social aspects of the project area in the project file. In case of Hile, though there is a provision for a baseline survey it did not take place in the field. The FRWSSSP used the baseline information which was prepared by UNICEF while it implemented a drinking water project in Hile area. Nonetheless, the baseline forms which include project request form, sub-project identification report form, focus group discussion form and health problem and status form are all gender specific wherever applicable. Apart from this technical baseline with some focus on information related to health and sanitation there was no gender analysis carried out to find out the difference in needs and interests of women and men, the ability of women and men to meet the capital costs and the operation and maintenance costs and the person responsible for meeting these costs, the gender division of labour between the two sexes, the possible impact of the project on women and men etc.

A7.2 Construction Stage

This section provides information on the procedures followed by the selected projects while implementing the construction work.

A7.2.1 Implementing Partners

NEWAH: After a decision was made about the number of tube-wells, their location and the cost to be borne by each party along with the collection of Rs. 400 per tube-well by the concerned women's PMC of Motipur and Magaragadhi two agreements were signed: one agreement was between NEWAH and the local NGO and the other agreement was between the local NGO and the PMC. In Motipur, GSS had an agreement with both NEWAH and the local women's PMC in September 1996 while in Magaragadhi, the MPS entered into an agreement with NEWAH in August 1995 and with the local women's PMC in November 1995. The role of NGOs was to support the implementation of water supplies in the selected areas. The agreement basically contained the terms and conditions that each party had to follow while implementing the project activities. In short, the agreement clarified in detail the work to be performed by each party and the way they should be implemented. Altogether five parties, namely NEWAH, local NGO, PMC, contractor and community were involved in the construction phase. The secretaries of both the NGOs were assigned to the respective drinking water projects to act as co-ordinators until the construction was over. The agreement does not contain any social or gender related issue to be addressed by any of the parties.

Regarding the involvement of the NGO, the NEWAH officials were asked about their expectation of the former. In response, it was reported that the NGO can facilitate the local process. They know better how best to approach the community. There will be no bureaucracy involved while working with an NGO as against what one would face while working with the government or political channels like the VDC. The other advantage of working with NGOs is that since they are locally based they can initiate the same activities on their own initiative in other areas afterwards. The NEWAH officials were further explored about the danger of an NGO playing a dominant role, as happened with many NGOs. The

reply of NEWAH officials was that if this happens NEWAH will break their relationship with the NGOs and work directly with the concerned PMCs.

About the other party involved in the construction work, which is a contractor, the selection process was as follows. First of all, a notice was issued by the NGO and the concerned women's PMC inviting quotations from the interested parties for sludging and/or hammering work required for the installation of 16 tube-wells in Motipur and 80 tube-wells in Magaragadhi. The time given to submit the proposal was seven days in both cases. After receiving the proposals from the bidders, the PMC and the NGO, upon consultation with the project staff, selected the lowest bidder. The same procedure was followed while selecting contractors for the construction of platforms. It was reported by all, NEWAH field staff, NGO and the PMC members themselves, that though all the concerned parties were involved in the selection process the main role in making decisions was played by the NGO staff. The reason was that they knew more about contractual activities than women PMC members who were not so confident and thus were happy for men to take the lead roles. It took about seven months to complete the construction work in Motipur and 10 months in Magaragadhi. The people in Motipur got clean drinking water from May 1997 and in Magaragadhi from June 1996.

RWSSP: Once the WUC submitted the evidence of the collection of Rs. 500 per tube-well an agreement was made between the RWSSP and the WUC in March 1991. The agreement basically contained the terms and conditions that both parties had to follow while implementing the project activities. There was no other party aside from RWSSP and the WUC involved in the implementation work. While the WUC was made responsible for providing unskilled labour and supervising the installation of tube-wells the RWSSP was responsible for all other activities including the selection of Mistri (technician) for sludging work. The local technicians selected for the skilled work were all males. The rate paid to the Mistri ranged from Rs. 80 to Rs. 160 per day depending on the depth of the tube-well; the rate per running metre ranged from Rs. 10 to Rs. 42. The rate for the construction of platform was Rs. 300 per platform. The technical and the financial side was all taken care of by the project itself. For this purpose, one male technician from the project stayed full time in the community until the construction was complete. The implementation work began in December 1991 and was completed in July 1993.

Since the present female WUC member and the female advisors were not in the then WUC the former female WUC member was asked about her role and contribution at this stage. She informed the researcher that she knew what was going on but all the dealings with the RWSSP were done by male members. She was never asked to join them. The male WUC members' reaction on this matter was that because the female member had difficulty travelling around, as she had to take care of household chores, they did not ask her. Further, they said her involvement would not have given any extra advantage rather it would have caused more problems.

FRWSSSP: An agreement was made between the DWSO and the WUC when the latter was able to submit the evidence of having collected the required amount for future operation and maintenance. This happened in December 1997. The agreement included the roles and responsibilities of each partner. The only two implementing partners in Hile drinking water scheme were DWSO and the local WUC. While mobilising the local labour was the responsibility of the WUC, providing all other construction materials plus the required cash

to pay the skilled labour, was the responsibility of the DWSO. For the technical aspect of the project one male WSST was assigned full time to the project. One major problem that was encountered at the time of implementing the project was related to the source of water which belonged to another VDC called Pakhribas. In order to convince and motivate the chairperson of Pakhribas VDC, the WSST visited him eight times, as locally reported. It was only on his eighth visit that the WSST was able to convince the chairperson of Pakhribas VDC to allow the use of water sources lying in his VDC for the Hile drinking water scheme. One other problem concerned the use of private land for building tap-stands in the bazaar area. In this case also, the WSST, together with the ward chairperson, played a key role in convincing the landowners as was locally reported. The construction work began in January 1998 and was almost complete by the middle of 1999. The women WUC members have no idea about all these activities that took place before initiating the construction work.

A7.2.2 Local Contribution

Both in Motipur and Magaragadhi in case of NEWAH, in Gajedi in case of the RWSSP and in Hile in case of the FRWSSSP, the local women and men provided all unskilled labour such as carrying and transporting materials from the motorable road to the project sites, carrying sand, soil, concrete, water, brick etc., clearing the sites and filling trenches (in case of Hile) etc. as agreed earlier. In case of NEWAH and the RWSSP, women's involvement at the time of installing tube-wells was limited to carrying water since the other main activity in this stage was sludging and hammering work which was considered to be a labour intensive work and thus left for males only. Similarly, in case of the FRWSSSP, the activity in which women did not participate was while breaking big stones and digging trenches as these were considered to be a labour intensive work and thus left for males. In case of NEWAH projects, the project staff reported that there were more women present at this stage of providing labour for project work in Magaragadhi than in Motipur. The reasons were: the existence of women's NGO and women's PMC.

The project was completed within the estimated cost both in Motipur and Magaragadhi. The local men and women contributed labour free of cost plus local materials such as sand, concrete, stone etc. during the construction phase. Where the public land was not available to install the tube-well some households volunteered to contribute their private land for this purpose. In order to avoid future complications the landowners were asked for a written commitment about not claiming the land afterwards. The advantage to the land donors is, however, that they could get the tube-well installed right in front of their home which was not liked by the other, poor, vulnerable people, as they have to walk longer distances in such cases. A number of households also contributed food for people involved in the construction work. Women were given the responsibility of feeding the people installing the tube-well. The NGO and the local PMC in Magaragadhi had some difficulty in mobilising local labour in the beginning as some local men were reluctant to contribute their labour, as they were not sure whether women could really bring a drinking water project in their community. Later on when they saw materials coming from NEWAH then they realised that something is definitely going to happen and this motivated them to participate in the project.

Similarly, in Gajedi, one problem had arisen due to the delay in the installation of a tube-well in one location called Bhagwanpur. The people in this location could not install their tube-well when it had been planned, due to a wedding in one household. The construction team thus started their work in another ward. When the people of Bhagwanpur wanted to have their

tube-well installed after the completion of their wedding ceremony there were no pipes and other construction materials. The people, especially women, of Bhagwanpur became angry with the chairperson as they thought the chairperson gave their part of construction materials to the other ward, taking some bribe from them. This misunderstanding continued until more materials came from the RWSSP. Except these two problems reported in Magaragadhi and Gajedi there was no other problem reported while implementing the project work in any community.

The situation in FRWSSSP in Hile was slightly different. In this case, the local contribution was expected at 10% of the total project cost. Because this scheme also covers the bazaar area, where people are busy with various occupations, they were a bit reluctant to provide their own labour. Such households, which were about 10% in total, contributed cash. The exact number of days or the equivalent cash to be contributed was decided by the WSST and the WUC member assigned to look after the project, and local people did not object to their decision. As reported by the informants, among the total labourers the proportion of female was only 15% since the project staff and the local WUC preferred to hire male labourers rather than female labourers, using the money contributed by households who did not come to provide their own labour. The male labourers were paid Rs. 60 per day while the female labourers only Rs. 50 per day. The reason provided for this difference was that males do harder work than females. The local women did not, however, accept this logic as they knew male labourers always came later than them and had more rest time for smoking and chatting than the female labourers. Further, the total working hours was the same for both of them, which also did not satisfy the local women as to why they were paid less than men.

The estimated cost of the Motipur project was Rs. 667,875. However, the actual cost came to be only Rs. 502,880 which was contributed as follows: contribution from users (Rs. 17,600), directly from NEWAH (Rs. 305,249), NEWAH through GSS (Rs. 175,031) and contribution from VDC (Rs. 5,000). The cost per capita was Rs. 549. In Magaragadhi, the total project cost was Rs. 1,001,229 as against the estimated cost of Rs. 1,453,982. The contribution of different parties was as follows: Rs. 169,000 (17%) was contributed by the community, Rs. 182,000 was given to spend through MPS and the rest was spent directly by NEWAH. The cost per capita was Rs. 228.

About the actual cost of the project, only the NGO Co-ordinator, who is the secretary of the NGO assigned to work with the PMC, could tell the researcher about it, but the women PMC members either in Motipur or in Magaragadhi were uninformed. While the male advisory board members and some other male NGO members had some idea about the cost the women PMC members did not have any idea about it at all. The women PMC members reported that they had neither shown any interest to know about the cost nor were they informed in detail about it by the NGOs and NEWAH. The women PMC members felt that it is because they are women and uneducated that the local NGOs and NEWAH thought it was not necessary to provide detailed information to the PMC. When the project staff were asked about this they said the information should have gone to the PMC through the local NGO. The reaction of the local NGO was that the PMC did not show much interest in knowing the cost of the project, as they were more interested about how soon they could have water in their area than about anything.

In case of Gajedi, it was difficult to find out the cost of the project. Neither the RWSSP nor its counterpart, DWSO, has documents about the cost. The other reason for the lack of

information is that the project, even within the same VDC, was implemented under three different schemes covering part of each ward/village and separate cost estimates were prepared for each scheme. Thus, it was not possible to breakdown the cost by ward/village. The selected project in Gajedi (Belbhariya) was covered mainly by scheme 2 and partly by scheme 3. The total cost of the scheme 2 and 3 is Rs. 2,272,355 which was contributed as follows: contribution from the government side (Rs. 851,392), contribution from the RWSSP (Rs. 1,097,451), contribution from village (Rs. 323,512). The cost per capita is Rs. 219 in the first scheme and Rs. 305 in the second scheme. The community had Rs. 15,900 in the maintenance fund at the time of research. The male chairperson of the WUC, has complete information about the cost of the project while the other male WUC members could give approximate details. On the other hand, the female treasurer, though she should have kept and known all the details being the treasurer, and the other two women advisors, have no idea at all about the project cost. This is mainly because neither have they shown any interest to know about it nor did the chairperson think that they can understand it.

In FRWSSSP in Hile, the total cost of the scheme was estimated at Rs. 3,915,072 of which Rs. 391,691 is the local contribution. The per capita cost was estimated at Rs. 2,625 while the per metre and per litre cost were estimated at Rs. 481 and Rs. 9 respectively. In this project also, only the overseer who has the complete documents of the project activities could give information about the project cost. The male WUC members, especially the ward chairperson, and the WSST had some knowledge about the total figure but not the details of it while both the female WUC members do not have any knowledge about the project cost.

The land donors taking the advantage of installing tube-well close to their home was reported in this project too but to a lesser degree than in NEWAH and RWSSP.

A7.2.3 Coverage of the Project

NEWAH: The survey was done for 21 tube-wells while only 16 tube-wells could be installed in Motipur. The reasons for failure to install the five tube-wells are mainly technical such as the lack of aquifer. In a few cases, it is also due to local men's negligence in pumping the water for at least eight hours after installation. Hence, the people who are affected by this failure are dissatisfied with the project and this problem has not been solved as yet. Out of five tube-wells cancelled in Motipur, water was coming from one but the discharge was not as per the standard of NEWAH. Therefore, that tube-well, though it was discharging some water, was removed while people, especially women, were not in favour of this decision. Their argument was that even if the water discharge was not as per the NEWAH standard they can still get some water from it. The local women, as they had to face the difficulty of not having water near the house, were very disappointed with the project staff of NEWAH for not being sympathetic to their problems. This issue was also raised by the VDC officials, advisory board members and the PMC members during interviews with them. The local people's concern was that the project staff were too concerned about the technical side of the project without considering the difficulties that women are facing in fetching water. This issue was later discussed with the NEWAH officials who agreed that the project selection criteria are technical. At the time of completion of the project the 16 tube-wells benefited 147 households consisting of 1,031 population and one school consisting of 458 students.

In case of Magaragadhi, 80 tube-wells were proposed and all of them were installed. Though there was some difficulty in some places due to the lack of aquifer the NEWAH staff upon

request of the local community changed the sites a couple of times and then installed the tube-wells after finding aquifer. The local people, especially women, were quite happy with this attitude of NEWAH staff. When the project was completed the 80 tube-wells benefited 24 villages, 590 households consisting of 4,393 population and two schools with 214 students.

RWSSP: When the survey was done in the community it was for 24 tube-wells, but, at the time of implementation some households with large family had separated and some new households had come into the village. As a result, the originally proposed 24 tube-wells were not going to meet the need of all the households in the community. The local people related this situation to the project which said that the project cannot entertain the request now but will consider it in the future. After some time from the installation of 24 tube-wells the project indeed implemented scheme 3 in the entire VDC under which the study community got 2 more tube-wells. The women of those new households were happy with the project as it relieved their pain of walking long distances to fetch water.

Nonetheless, the lack of tube-wells was again felt by the people in the study community after some time. It is mainly due to three reasons. First, the study community is a squatter area and hence the practice of people coming from outside into the village is continuing. Second, the practice of breaking down the joint families into smaller ones and building new houses is also happening. However, these new houses are some distance from the existing tube-wells. Thus, such households are spending more time in collecting water as they have to use the same source irrespective of the distance. Third, the increase in population is another reason leading to insufficiency of water. Nonetheless, part of this problem was resolved when the study community came in touch with NEWAH. What happened was that when NEWAH said it wanted to make the study community a model, the people in the community thought that they would get roads, electricity, telephones etc. from NEWAH. However, later when they did not see any sign of these infrastructures in their community they were a bit frustrated with NEWAH. To minimise people's frustration NEWAH thus installed four tube-wells in the areas which had problems of water though this activity was not in their original plan. The installation was done in November 1997.

At the time of research, the WUC was looking after all 30 tube-wells, 26 from RWSSP and four from NEWAH. The 30 tube-wells were benefiting 275 households, consisting of 1,577 population, plus one primary school.

FRWSSSP: Taking into consideration the criterion of 5 to 10 households per tap-stand, water discharge capacity, settlement pattern, etc. the project design team surveyed for 11 tap-stands in Hile area. Since half the project area is around the bazaar the local WUC, upon consultation with the local people and the project staff, decided to give options for private connections to the local people. Accordingly, 171 households applied for private connection. The construction work of 11 tap-stands, three reservoirs each with a capacity of 150,000 lt., 40,000 lt., and 20,000 lt. respectively and 5 intakes has been completed. There is some work left related to private connections. Nevertheless, the project staff and the WUC are of the opinion that about 380 households consisting of about 2,280 population can benefit from the 11 public tap-stands and 171 private connections.

A7.2.4 Supervision

NEWAH: In principle, the women's PMC was responsible for supervising the construction work through the concerned women PMC members and the concerned UG of each tube-well. In practice, it was, however, taken care of by the NGO Co-ordinator, who was assigned to work with the PMC. The women PMC members are of the opinion that this happened mainly because the NGO Co-ordinator was paid by NEWAH for this task. Moreover, the women PMC members also said that since the NGO Co-ordinator knew everything about the cost of the project it was much easier for him/her to monitor the project work. They further said that this could be the reason why the contractor was also seen to maintain more contact with the NGO Co-ordinator than with the women PMC members. When the project staff were asked about this matter they said the NGO Co-ordinator is usually paid remuneration for six months. They further said that this is perhaps the reason why the NGO Co-ordinator seemed more active than the women PMC members in both the communities.

NEWAH was also supposed to monitor the project activities in both communities every month until the project was handed over and it also had to provide one full time sub-overseer to the project. As reported by the women PMC members of the two communities the NEWAH representative missed only two visits in Magaragadhi and one in Motipur during the whole project period. This did not, however, make any major difference in the project activities as the NGO staff were visiting the project activities every month during the project implementation period in both the communities.

After the successful completion of the project activity, the project was handed over to the PMC in May 1997 in Motipur and in June 1996 in Magaragadhi. The handing over session was attended by NEWAH officials, concerned NGO officials, VDC officials, women PMC members, advisory board members and the local men and women users. The project was first handed over by NEWAH to the GSS in Motipur and the MPS in Magaragadhi and then to the concerned PMCs. In Magaragadhi, even though the new PMC had both men and women members, the project was handed over to a woman PMC member, which was surprising to all since traditionally it is usually given to a man.

RWSSP: The construction work was supervised by the technician of the RWSSP and the WUC members. The technician of the RWSSP was accompanied by one male WUC member of the concerned area while installing tube-wells in each location. The female WUC members were, however, released from this responsibility so that they could do the household chores. Because of the presence of the RWSSP technician the male WUC members also did not have to do much in this stage. Because of the use of simple technology all work was done by Mistri and 6-8 concerned users. Thus, there was not much supervision required at this stage. As reported by the local men and women no siting had to be changed while installing all 30 tube-wells. The project was handed over to the WUC in May 1997.

FRWSSSP: The supervision of construction work was the responsibility of the WSST of the DWSO and the local WUC. While the supervision of the technical aspects of the scheme was the responsibility of the WSST the supervision of the technical as well as the other social aspects was the responsibility of the local WUC. The WUC had formed one sub-committee of 6 members, all men, to look after the construction work. Each member of this sub-committee had to be present during the construction period on a rotational basis. The WSST assigned to the scheme by the DWSO was also involved full time during the construction period. Hence,

any confusion that the WUC member had about the construction of the scheme activities was clarified by the WSST. Aside from keeping track of the technical activities the other task of the WUC member was to mobilise the local paid and unpaid labourers. The project has not yet been handed over (no letter of ownership has yet been given) to the local WUC. Since the construction committee does not have any woman as its member, the 2 female WUC members did not have any role to play in the supervision of the construction work.

A7.3 Post-Construction Stage

This section provides information on the procedures followed by the selected projects during the post-construction stage.

A7.3.1 Provision of Caretakers

NEWAH: Both in Motipur and Magaragadhi, there is provision for one caretaker at each tube-well who is primarily responsible for its operation and maintenance. In Motipur, both men and women are recruited as caretakers whereas in Magaragadhi, only women are selected to this position. The caretakers were selected by the NGO upon consultation with the concerned users based on their level of activity in the community. They have been provided training by NEWAH on the operation and maintenance aspect of the tube-wells. In principle, the caretakers are supposed to report the problems, if any, to the UG chairperson who should then report them to the PMC. In practice, however, the caretakers have been dealing directly with the NGO as they know the others cannot do much on this matter. There is no provision for remuneration to caretakers.

Out of 16 tube-wells in Motipur, 6 have women caretakers while in Magaragadhi all 80 tube-wells have women caretakers. None of the caretakers in either of the communities had prior knowledge of working as a caretaker. Both men and women caretakers were selected because their name was proposed by the NGO and the other local male leaders, more so in case of Motipur, which they did not like to reject. One major reason reported for their selection is that they are relatively more active than others. The selection of caretakers took place in the presence of NEWAH staff. There has been no change in the original selection of caretakers in either of the communities. Women caretakers are happy that they have attended some training together with men, and that they are in the post of caretaker which used to be the men's domain in the past.

RWSSP: Until the reformation of the WUC which was in October/November 1997, there were only four VMWs, all men, for 26 tube-wells. At the time of research, there were only three male VMWs in the community while the fourth had gone abroad as a labourer. After NEWAH installed four tube-wells and the WUC was reformed a provision was made to have one caretaker for each tube-well. In this new arrangement, seven women were also selected to be in the position of caretakers. The old male VMWs were selected by the mass meeting whereas the new female caretakers were proposed by the male WUC members which was accepted by the concerned users. None of the caretakers and VMWs has prior experience of similar work. Maturity was the main factor considered while selecting the old VMWs. In the case of new caretakers, their level of activity was considered by the male WUC members. The old VMWs were provided two days' training by the RWSSP while the new caretakers were provided one day's training by NEWAH. For the purpose of this research, all seven women caretakers and three old male VMWs, were contacted for interview. As reported by

the WUC members, all caretakers and VMWs came from poor and middle income groups. There is no provision to pay remuneration to the VMWs. Yet, the male VMWs have been working since the beginning of the project, namely for five years and the female caretakers for the last six months.

FRWSSSP: In Hile, there is a provision of two VMWs to look after the operation and maintenance aspect. It was reported by the project staff that these VMWs are responsible for the operation and maintenance of all water sources, 3 reservoirs, 5 intakes, 11 public tap-stands and all private connections. Both VMWs are males. The VMWs were selected by the WUC based on criteria such as activeness, age and educational status. While one is in the second year in college, the other has passed the ninth grade. Both the VMWs come from poor economic backgrounds. Neither of them has prior knowledge of similar work. Accordingly, at the time of research, the VMWs were receiving on-the-job training. The WUC paid Rs. 200 per month during the project period and it is now planning to hire them as salaried staff from the money that it will collect from water users, especially the private connectors. Because the WUC has a deposit of Rs. 182,000 in the bank they think the interest that they get from the bank will be enough to meet the salary of the VMWs. The WUC members also said that they are also thinking of hiring one WSST in the future.

Because the WUC has selected only men in the position of VMWs they were asked why they did not select women in this position. Interestingly, the WUC members and also the WSST of the DWSO said that women are not suitable for this position as it requires physical strength. When the local women were asked about their opinion on this matter they remarked that they are equally capable to take the position of VMW. They further said that if there are activities which cannot be done alone they can take the help of other people. The local women disclosed with dissatisfaction that at least one of the two VMWs should have been a woman.

A7.3.2 Caretakers' Responsibilities

All women and men caretakers interviewed in Motipur and Magaragadhi knew about the project for the first time when NEWAH staff came for a PRA exercise. In the case of Gajedi, while the male VMWs knew about the project right from the beginning, the female caretakers knew about it only at the time of implementation. In Hile too, both the VMWs knew about the scheme at the time of implementation. In all projects, all caretakers/VMWs were involved in the construction phase as voluntary workers. All the selected caretakers/VMWs in all project areas were asked whether they had any idea about their responsibilities when they were selected as caretakers/VMWs. They said their responsibility is to repair and maintain the tube-wells or tap-stands but they did not have any idea about how they could do it until they received training. They also reported that their responsibilities included greasing the pump, changing spare-parts, cleaning the platforms, making outlet for the waste water and collecting money from all user households when a spare part is needed. In case of Hile, the VMWs said that their responsibility also includes taking care of reservoirs, intakes, water sources, and all tap-stands after the scheme is handed over. While the construction is going on they will have to work together with the DWSO technician learning everything. At present, the VMWs think that they can do minor repair in any system from source to the tap-stand. However, if there are any major breakdowns in the system due to flood or landslides they need help from the DWSO.

In the absence of the concerned caretakers, different people, such as UG chairperson, FHV, caretakers' husbands and users, take up the responsibilities. In all communities, when there was any problem which could not be fixed by the caretaker or VMW alone, the other users were seen assisting them. The selected women caretakers, 6 in Motipur, 9 in Magaragadhi and 7 in Gajedi, were asked whether being women they had any problem to do their job. The women caretakers in Motipur said that they do not have any problem so far since the tube-wells are functioning well and they are receiving support from their husbands and other people in the community. Until now the caretakers did not have to do anything except greasing the handle as the pumps are new and in proper condition in Motipur. However, in Magaragadhi, the women caretakers also have to open the head to check washers, nuts and bolts, aside from adding grease, since the number of malfunctioning tube-wells is increasing over the years. Until the beginning of 1999, the number of such tube-wells has reached 9 and the caretakers are a bit worried about it, since the problem is beyond their understanding. In Gajedi, 4 out of 7 women caretakers interviewed were having problems with their tube-wells and spending a lot of time in moving around to discuss their problem of low discharge of water in three cases and discharge of sandy water in one case.

The women caretakers in NEWAH and RWSSP project areas were asked whether their workload had increased from before and if so how were they managing with their other productive and reproductive roles. In response, the women caretakers of Motipur, Magaragadhi, and Gajedi said they had indeed difficulty in managing the household chores and the time demanded by the project, especially until the project was complete, as they had to attend meetings, attend training, participate in the implementation work etc. At present, in Motipur, their input to the project is less than before though they said it might increase again when the tube-wells become old and need frequent repair, regular maintenance, and demand their more time to go around to report the problems to the PMC or the NGO and find out ways to resolve those problems, as has been the experiences of 9 women caretakers in Magaragadhi.

In RWSSP, however, because the tube-wells are already 5-6 years old they have started giving trouble, demanding more time from all caretakers including women. The time required of women caretakers in the RWSSP area has already increased over what it was before, for moving around to look for solutions to the problems in their 8 tube-wells. Some of them are frustrated when their problems are not resolved by the WUC despite their time spent on such visits, which affects their household activities. Here, the husbands of the women caretakers are more disappointed than the women caretakers themselves as their wives are giving a lot of time for the communal activities, putting their other household activities aside, and still, they are not receiving any incentive for it. When the husbands were asked why they do not extend their support to their wives in doing the household chores when they are busy in the project work, they said that they have many other things to do, from which they can earn some money for them and the family. Ironically, though the husbands of all women caretakers are not discouraging their wives from participating in project activities, they are not very keen on taking up the household chores when their wives are busy in the project work. As a result, the women caretakers are ending up with double work.

To fulfil their responsibilities the caretakers/VMWs in all projects are given a tool box and some spare parts by the concerned agency though not all receive them in Gajedi, where only 3 male VMWs received a tool box from the RWSSP. When NEWAH installed four tube-wells

in the community, it gave a tool box only to the four caretakers of those four tube-wells though it provided one day training to all 30 caretakers. In case of others, the concerned users contributed some money to buy the basic tools that they frequently require to do the repair work. The caretakers/VMWs are buying spare parts that are not in the stock, from the money collected from among the users, as required.

A7.3.3 Collection of Water Tariff

NEWAH: With regard to the collection of fees as water tariff from the users of the tube-wells, to help in the operation and maintenance of the system, the project staff of NEWAH said that they advised the PMCs of both Motipur and Magaragadhi to collect a certain amount from users on a regular basis so that the money could be used for repair work. Accordingly, some households in both the communities started collecting some money from the user households, but, a lot of problems arose while collecting the water tariff as reported by the focus group participants. First, the responsibility of paying the water tariff was considered women's responsibility in most households and women had difficulty in managing the money. Second, the women from the poor households which did not have male members were having more problem as they were facing problems in meeting the household needs of the family members. Third, the users were not happy about paying equal amounts as the use of water varies according to the number of members in a household and the number and the types of livestock raised by them. In turn, the collection of water tariff was stopped after some time. The understanding among the user households in both the communities is now to collect money whenever there is a need for it.

The PMC of Motipur had a deposit of Rs. 6,400 in the form of cash and spare parts collected at the rate of Rs. 400 per tube-well at the time of implementing the project. At the time of research, the PMC in Motipur had a cash deposit of Rs. 3,154 and spare parts worth Rs. 3,247. Similarly, the PMC of Magaragadhi had an original deposit of Rs. 32,000; this became Rs. 13, 346 in the form of cash and Rs. 23, 921 in the form of spare parts. The spare parts worth of Rs. 3,247 in Motipur and Rs. 23,921 in Magaragadhi are handled by the GSS and the VDC respectively. When required, the PMC can use the spare parts in stock, but according to the agreement with NEWAH the used spare parts have to be immediately replaced.

RWSSP: In Gajedi, the user households are collecting Rs. 2 per household per month for an operation and maintenance fund. As reported by the WUC members the amount of Rs. 2 was decided by a mass meeting which was attended by nearly 68 males and 24 females. Though the discussion about collecting water tariff took place for a long time it came into action only in April 1997, the time at which some tube-wells started giving problems. The WUC thought that if they still did not collect money then they would have difficulties one day when the tube-wells require a major repair. Since the tariff collected was very small the male WUC members decided not to use the money for repair work but rather to circulate the money among the users on a loan basis so that the principal amount becomes large. Accordingly, the money is lent to user households at the rate of three per cent per month. At the time when the tube-wells require some repair or change of spare-parts, the user households contribute the required amount equally. Some user households at some tube-wells had also collected an additional amount even before there was any problem in the tube-well, as a contingency. It has been, however, reported by the focus group participants, both men and women, and also observed that there are about 28 defaulters as well as late payers, among whom 22 are

women. As in NEWAH projects, here also, it is women who are taking the responsibility for paying the water tariff and they have all the same problems as reported in NEWAH projects: lack of money with women, female headed households having difficulty in managing their needs with limited resources, dissatisfaction with the same amount to be paid by all etc.

At the time of research, the WUC of Gajedi had Rs. 15,900 in the bank and Rs. 10,417 circulated among users as loan. The idea is to distribute the interest of Rs. 15,900 to the sub-committee of each tube-well to meet their repair cost. Though the WUC is concerned about the sustainability of their tube-wells the fact that the users, especially women, are facing problems to pay the water tariff, indicates the need to take some action immediately. As observed in one meeting, nearly 8 out of every 10 persons who came to pay the water tariff were women.

FRWSSSP: In Hile, nothing has been done about the collection of water tariffs for future operation and maintenance of the scheme. When the WUC members were asked what they have thought about this aspect they said they have deposited Rs. 182,000 in the bank which is to be used for operation and maintenance of the scheme. They also revealed that since the private users will pay a water tariff based on a metering system there should be no problem of funds for operation and maintenance of the scheme. In case of the 11 public tap-stands, the WUC members said that it is difficult to collect water fees from the users, as half of those tap-stands are in the bazaar area and are used even by people who are not local residents. When half the users do not pay, the remaining half will also not feel like paying. Though the WUC is planning to form a users' group at each tap-stand to give it the responsibility for operation and maintenance of that particular tap-stand, it thinks that eventually such maintenance will have to be managed from the fund deposited in the bank and the money collected from the private users. The WUC seems to have been mentally prepared for this arrangement. However, some conflicts were observed in the opinions of several private connectors regarding this issue.

A7.3.4 Condition of Tube-wells or Tap-stands

NEWAH: The observation of the tube-wells in Motipur and Magaragadhi revealed that the users have not taken any serious interest in the protection of tube-wells. Apart from some light wooden fencing around some tube-wells and greasing them once in a while no other measures have been taken to protect the tube-wells from children or cattle. In most cases, only the area where they put their container has been found to be clean, but not the other parts of the platform. Overall, the condition of all 16 tube-wells in Motipur and 71 tube-wells in Magaragadhi in terms of their discharge and quality has been found to be good until mid-1999. Nine tube-wells in Magaragadhi are not functioning well. The number of such tube-wells was 4 at the end of 1998 while it has reached 9 in 1999. The women caretakers said that the problems are beyond their capacity, as the problem seems to be under the ground. In most cases, the waste water has been collected in ditches for watering cattle.

RWSSP: Like in NEWAH, some tube-wells in Gajedi have been wooden fenced while many remain open. It was reported that greasing is not done on a regular basis but only when the handles start making some strange sound. Overall, in Gajedi, the physical condition of 22 tube-wells (out of 30) is good while 8 (5 in late 1998 and 3 in mid-1999) tube-wells are showing some problems. There is an air leak in two tube-wells; in case of two other tube-wells, the water flow is less, hence the women have to spend nearly 25 minutes just to fill one

pail of water; there is no water coming from three tube-wells; and in one case there is sandy water coming from the tube-well. The users and the concerned women caretakers were asked about the measures taken to solve those problems. The response was that all those problems are beyond their capacity and thus they are contacting Mistri (technician) to resolve the problems. Further discussions with the women caretakers revealed that they are quite frustrated with the fact that they have reported and met the WUC so many times about these problems, but, the WUC is not paying much attention to this matter. The women caretakers said they have already spent a lot of their time in going around to solve the problem of these tube-wells and their husbands are already angry with them since they are not receiving any remuneration for all their running around. If the problem persists like this, then it might be difficult for them to continue as caretakers. When the researcher talked with the WUC, they said the problem in the tube-wells which are giving less water might be resolved by itself once there is good rain, since they think the reasons for poor discharge of water is due to drought and the water level going down. In other cases, they will try to find out the reasons once they find a good Mistri.

FRWSSSP: In Hile, since the construction is about to be complete it is obvious that the condition of the recently completed infrastructure is very good. All 3 reservoirs and 5 intakes are recently completed and look physically strong and good. The construction of all 11 public tap-stands is also complete and looks sound. Out of 5 intakes 3 are well fenced with barbed wire while 2 look a little vulnerable as they are built just beside streams (Kholas). About 1,500 seedlings are planted around the source and the intake at Karkidhara. The plantation was done by both men and women. The local people are happy with the hard work done by the WSST.

Regarding the capacity of the communities in repairing and maintaining the system the NEWAH and the RWSSP officials were asked "who looks after the project if there is a major breakdown in the system and it is beyond the capacity of the local community". The reply was that theoretically it is the responsibility of the DWSO which has to take care of such projects, but, the DWSO always asks the communities to contact the same institutions which built the project as they say they have no budget to spend on the repair and maintenance of the project built by other institutions. In this regard, NEWAH's and the RWSSP's grievance was that if the DWSS had to implement new projects it would have cost them a huge amount. However, even in cases when the project is built by others the DWSOs say that they do not have money even for the repair and maintenance, which is an irony. The NEWAH officials further said that during the period they are monitoring the project they might resolve such major problems but, once they are gone from those communities they cannot say what will happen. In case of RWSSP, the officials said that they have not done anything in Gajedi after they have handed over the project to the local WUC. In this regard, it is to be appreciated that the users themselves replaced two malfunctioning tube-wells by drilling new wells in Gajedi. When this issue was explored with the DWSS officials they agreed that it is, in principle, the responsibility of the concerned DWSO to repair any water project in its district which is beyond the capacity of the local WUC. For example, in schemes built by DWSS, any repair which costs less than Rs. 10,000 has to be managed by the local WUC itself, but, the schemes which require more than Rs. 10,000 for repair will be managed by DWSS. Despite agreeing that the responsibility of repairing major breakdown belongs to DWSS, some DWSS officials said that they cannot always entertain such requests since the DWSOs are always short of funds. One reason pointed out by these officials is that if the other institutions inform the

concerned DWSO in time about the projects they have implemented in the district then it will be helpful for the DWSO to make some provision of fund for repair and maintenance of such projects.

A7.3.5 Monitoring Visits

After the project was handed over to the PMCs, NEWAH staff visited the project area four times in Magaragadhi and twice in Motipur at an interval of six months as agreed. The handing over of the maintenance work by the maintenance section of NEWAH to the local PMCs has not, however, taken place. In the follow up visits NEWAH staff filled out a form which required information about the technical, management, social and maintenance aspects. Similarly, the concerned PMC was expected to submit a "Quarterly Progress Report Form" to NEWAH every three months. Hence, the GSS in Motipur and MPS in Magaragadhi were expected to extend help to their PMCs to fill up this progress report form, as the women members had difficulty filling them. Basically, this monitoring report contained information about the condition of the tube-wells, the performance of caretakers etc. As far as the internal monitoring is concerned, theoretically, the monitoring of the activities of the caretakers is to be done by the concerned UG chairperson and the monitoring of the UG is to be done by the concerned PMC members, but, in practice, it is not happening in either of the communities. As in many development projects, the monitoring and evaluation aspect has been found to be weak in both NEWAH projects.

In case of Gajedi, there is no provision for monitoring the project once it is handed over to the community though some WUC members and CHVs were taken on some observation tours even after handing over of the project. Similarly, in Hile also, the project officials said that once the scheme is handed over to the local WUC it is their responsibility to monitor the project activities. The DWSO is not accountable to the WUC once the construction is over and it is handed over to the WUC. There is no provision for monitoring the water schemes in the DWSS. The DWSS comes into the picture only when there is a major breakdown in the system. If the WUC wants to use the money deposited in the bank for operation and maintenance of the scheme it has to take approval from the concerned DWSO.

A7.4 Project Outcomes

In order to find out the benefits brought about by the selected drinking water projects of NEWAH, RWSSP and FRWSSSP a number of individual and focus group discussion sessions, as indicated earlier, were held with local men and women. The outcomes of these discussions are as follows:

A7.4.1 Tangible Benefits

NEWAH: At the time of research, in Motipur, 147 households with a population of 1,031 population and one school with 412 students are benefiting with fresh drinking water through 16 public tube-wells installed by NEWAH. Similarly, in Magaragadhi, 763 households consisting of 5,445 population and two schools including 189 students are benefiting through 80 tube-wells installed by NEWAH. In addition to the tube-wells installed by NEWAH, 1-2 informants in each focus group session in Motipur and 1-3 informants in Magaragadhi, have private dug wells and hand pumps. As reported by the local men and women present in the focus group sessions and verified through observation, the water discharge in all the pumps

was adequate and people using those water sources did not have any complaint about the inadequacy of water up to the first field visit in 1997. However, in 1998, 5 tube-wells in Magaragadhi had some problems and were not discharging water; in 1999, the number of such tube-wells increased to 9. As a result, the households using these tube-wells have to walk much further (20-25 minutes) than before to collect water from other tube-wells. The degree of happiness that was observed in the people in 1997 was not at the same scale in 1999.

As reported by the participants of the focus groups, both women and men, and the other local key informants, the project has, in principle, saved 90 to 120 minutes of women's time from fetching water each day, in each household in Motipur, and about 120 to 150 minutes in Magaragadhi. The time spent earlier was 25-30 minutes at a time in Motipur and 40-45 minutes at a time in Magaragadhi which is now reduced to 5 to 10 minutes for the relatively well-off households while it is about 20-30 minutes for the poorer ones in both the communities. However, in practice, the difference between the total time the women used to spend for collecting water before and the time that they spend now is not much.

Almost all the women focus group participants said that the number of times they, and their girl children, collect water has tremendously increased over what they did before. The use of water in the households has increased by three to four times after getting the improved water supply near the home. Previously, the households used to make it with 4-5 pails (15-20 lt. per pail totalling 60 to 100 lt.) of water a day, for which they had to collect water 4-5 times. This is now increased to 10 to 20 pails visiting the water collection points for almost 10-15 times a day, totalling 200 to 300 lt., depending upon the number of people in the household, and of small animals and birds like chicken and ducks. Previously, the same water was used one after another for various purposes but, now, since the water is near the home each need is met with fresh water. Moreover, because of the temperature the water stored at home becomes warm after some time and people think that this warm water does not really quench one's thirst. As a result, whatever amount of water is left in the container it is thrown out and either a woman or a girl child goes to collect fresh water. The discussions with the male focus group participants in both the communities yielded the same results.

Thus, it is hard to conclude whether there has been any significant saving in women's time and energy from fetching water though some of them said they have some more free time than before for the household chores. Nevertheless, there are a number of other benefits of the improved water supply as reported by the informants. Some of such women have learned from the FCHVs how to make oral rehydration therapy (ORT). These women said they do not now need to go to the health workers if some one is sick of diarrhoea at home as they know how to make ORT themselves. A majority of the male focus group participants also expressed their happiness for that they not only have fresh water to drink and bathe in such a hot temperature in the lowland, but also that they have more time for wage labour as their women are sharing their agricultural works in whatever small amount of time is saved from water fetching. One other major benefit reported by the local people, especially women, is that after they started receiving clean water from the tube-wells they are able to maintain hygienic living condition and proper sanitation at home. They reported that the incidence of diarrhoea, worm infestation, dysentery and cholera among the children, as well as among adults, has reduced from what it was before in both Motipur and Magaragadhi. This was also supported by some other local informants, including health workers.

RWSSP: In Gajedi, as reported by the local informants, a total of 287 households consisting of 1,722 population are benefiting from the 30 tube-wells installed by the RWSSP and NEWAH. Among the 5-12 participants present for the discussion in 12 groups, only 7 informants have a private tube-well. The men and women participants present in the focus group sessions related that the water discharge in the majority of the hand pumps (25 in 1998 and 22 in 1999) is adequate and people using those water sources do not have any complaint about the lack or inadequacy of water. Among the 8 tube-wells with problems, the water discharge was slightly less in 5 until the middle of 1998 but in 1999 the number of such tube-wells reached 8. Without knowing the reason for the malfunctioning of the tube-wells the local people thought that the tube-wells might discharge water once there is heavy rainfall. Hence, the women from these tube-wells are relying on other tube-wells for which they have to walk about 20-30 minutes for collecting water. Nothing much was done before the researcher was present in the community about resolving this problem. Until now, people are fulfilling their water needs from one or other RWSSP installed tube-wells in the community. Though the focus group participants, both women and men, and others in the community are quite happy with RWSSP for this project their happiness is slowly lessening due to a steadily increasing number of malfunctioning tube-wells over time.

The households who are near tube-wells spend only 5-8 minutes to collect water at a time and the farthest households spend about 20-30 minutes at a time. The comparable time spent before the project was 60-90 minutes in a majority of cases. The focus group participants, especially men, feel that the improved water supply has significantly saved women's time. Women also feel less tired as they do not have to walk long distances to collect water now. However, as in the case of NEWAH project areas, here also, the use of water has increased tremendously due to the nearness of water and the hot temperature of the lowland. A thorough calculation of the time spent by some women present in the focus group sessions before and now showed that there is no substantial saving in women's time and hence, in their energy as well. The women and men focus group participants said they had not analysed the time so systematically. The notion they had was that because the women now do not have to walk for hours as they did before, there must have been a substantial saving in their time. However, because the use of water has increased by nearly four-five times (75-100 lt. to 300-400 lt. per family per day) in almost all the user households they later realised that there has been only little saving of women's time. Because the water is now near the house the local women and children of some households were observed collecting water even up to 20 times a day, even when there was still water stored in the house. When asked why they were doing so the women gave the same answer as in NEWAH project areas that the stored water gets warm soon due to high temperature while the water straight from the tube-well is very fresh and cold and thus quenches thirst. The frequency of collecting fresh water reduces slightly in winter.

Nevertheless, the local people still feel there are several other advantages of the improved water supply near the home though it has not saved women's time effectively. The women can give more time on household chores as the distance between the home and the water supply is not much. They are less worried now about their small children as they do not have to leave them unattended for long. The improved water supply has developed contacts with FCHVs and many of them have been able to treat their family members who are sick with diarrhoea, with ORT, which they could no do before. In a few households who are very near the tube-wells, some women are able to attend literacy classes. Men are also happy as they

received fresh water to drink, the water is available in sufficient quantity, their women can help them in agricultural works and in turn, they can spend their time in other income earning activities such as wage labour. Moreover, the men can also now prepare their rice bed using the tube-wells when the rainfall is late. This was observed by the researcher also during his stay in the village as the rainfall was late and people were still preparing their rice bed using the water from the tube-wells though it was a very labour intensive task as someone had to pump the tube-wells for hours so that the plot allocated for rice bed receives enough water.

Another benefit, though at a limited scale, is that a few households near the tube-wells are doing kitchen gardening for household use. These households think that the use of green vegetables that come from the kitchen garden might have some positive effects on their health. Likewise, the focus group participants also said that the incidence of epidemics like dysentery, cholera, diarrhoea, eye infection has been less than before. They have been able to maintain hygienic living condition in their households due to the use of clean water. Further, about half of the male focus group participants and one-third of the female participants said that even livestock holding has been much easier than before due to the availability of water. The waste water from most of the tube-wells is collected in a ditch which is used for bathing and watering animals.

FRWSSSP: In Hile, 380 households consisting of about 2,280 population have been benefiting from 11 public tap-stands and 171 private connections. The local people, especially women, are happy that even when the scheme was only half completed, the project managed to supply them with water using temporary polythene pipes, in March 1998, which saved women's energy from walking long distances.

The women focus group participants said that, previously, the women used to spend nearly 60 to 90 minutes in one stretch to fetch water, but, now, no one has to spend more than 10 minutes at a time, though the women admit that they have to collect water many times now since the use of water has increased many fold (5-6 times) due to easy access. Nevertheless, the women from both the bazaar area and the villages are happy that the former do not now have to shut their shops/stores as the tap-stands are nearer, and the latter can spend more time in household chores and agricultural activities. The easy access to water has not only saved their time by almost 3 hours per household per day but also their money in cases of the households (125) who used to hire vendors to bring water for them. The local people also think that the water they are receiving now is fresh and clean and thus there might not be the problem of diarrhoea and dysentery, unlike before. The women and men informants said that the water they are receiving is enough for all purposes such as drinking, washing, bathing, cleaning, and feeding animals. Because the water is in high demand in the bazaar area the households were observed to be also harvesting rain water for washing dishes and cleaning houses.

A7.4.2 Intangible Benefits

NEWAH: From their participation in project activities the women PMC members and the women caretakers felt that they have received a number of intangible benefits which are as follows:

- In both the communities, but more so in Magaragadhi, the women PMC members are content with the fact that women have been in the PMC and in the position of caretakers,

which gave them opportunities to develop contacts with other people and gain knowledge on various aspects.

- Some of the PMC members feel that though they have not been able to be very active in the project activities the mere fact that they attended meetings and knew what was going on helped to open their eyes.

- A few women PMC members, such as the chairperson and the secretary, think that they can now express their views with outsiders while they were only listeners when men talked with outsiders before. This was found to be true while discussing with them during the course of this research.

- The women PMC members in both the communities said that from their participation in project activities they got to know how they could organise themselves to be in group, how work which could not have been done on an individual level could be done on a collective basis, and how women should organise themselves to achieve something, like men.

- The women PMC members also said that they are now asked to act as mediators when there is any conflict or misunderstanding between two parties in the community.

- The involvement of women in various activities led some men to feel, though to a much smaller extent due to the absence of right kind of project environment, that women also have potential and the right to participate in development activities.

RWSSP: The following intangible benefits were reported from the RWSSP by the men and women informants:

- The woman treasurer and the advisors in the WUC and the members in the sub-committees are content that they have been considered to be in the WUC like men.

- The women members are happy with the fact that from their participation in meetings they have increased their knowledge about development activities and also been able to express their views.

- The women caretakers also expressed their satisfaction as they previously thought that this position is only for men.

- The local women feel that even if there are only three women in the WUC it has led at least some men to feel that women need to be involved in development work. They said the attitude of other men towards women might gradually change over time.

- When there was no project, the children had to go to school mostly without food, as women did not have time to prepare it on time, but now, because the water is near the house, their children always receive food before going to school as the women now have time to prepare food.

FRWSSSP: Since the water scheme is very new in Hile, the local women and men could share only a few intangible benefits as follows:

- A few women in the community received the opportunity of being in the position of WUC member, motivator and CHV which gave them opportunities to interact with outsiders and gain knowledge.

- The women WUC members, motivator and FCHVs attended some training on health, sanitation and water related issues both inside and outside the community which is the first such experience in their lives.

- The women WUC members, motivator and FCHVs are also happy with the fact that they are teaching their fellow village women about health, hygiene and sanitation issues in the community.

A7.4.3 Equity in Sharing of Benefits

NEWAH: Though many men and women in both the communities are happy with the project, they still have some reservations with NEWAH. Local people's disappointment is with the NEWAH policy which states that one tube-well should be shared by about 10 households on average. The local people, especially women, who have to collect water, argue that this policy of 10 households per tube-well is satisfactory in a settlement where the households are living together but in scattered communities like Motipur and Magaragadhi this is not appropriate. This criterion is not appropriate also because, in some cases where there were 10-11 households during the feasibility survey who were certain of receiving one tube-well in their location, they could not receive one after all, as 1 or 2 households then installed their own private tube-wells before the detailed survey. As a result the remaining households had difficulty in forming 10 households to meet NEWAH's criterion. Hence, the inability to include all the households in the project and failure of some tube-wells for technical reasons are reported by the local people as the negative side of this project. There are still about 125 households in Motipur and 200 households in Magaragadhi who are deprived of an improved water facility; about 15% of these households are female-headed and come from lower ethnic groups. The people in both the areas feel that about 50 more tube-wells need to be installed if all the locations are considered on the basis of people's poverty, vulnerability and marginality and not just the technical criterion of the implementing agency. Nothing has been done yet to include these households either in this or in any other drinking water project.

As a result, even within the same project area, while some women from well-off families had somehow been able to locate the tube-wells near their house and hence do not walk more than 10 minutes to collect water, the women from poor households have to walk nearly 20-30 minutes, as they could not voice their concern during the installation of tube-wells. This has led the deprived men and women to be dissatisfied with the project. For example, a widow in Magaragadhi, whose husband had died years ago, said with grief that "she was never invited to participate in any meetings including that which dealt with the siting of tube-wells. Since there was no one to speak for her and she could not voice her concern due to lower socio-economic status the tube-well in that community was installed without considering how much she has to walk. As a result, while other women can collect water just in 5-10 minutes she has to spend nearly 30 minutes at a time which affects her ability to do the wage labour, without which she cannot help her three children to survive. She was wondering whether there will ever be a time when poor, voiceless women like her can also live with dignity". The deprived households also put forward the point that, since they still have to walk longer distances to

collect water, their daughters could not yet regularly go to school, as they have to look after younger siblings and do household chores in the absence of their mother.

The focus group participants, both women and men, further reported that these deprived households frequently go to the local PMC and the local NGO office in the hope that they could solve their problem of drinking water. However, the NGO and the PMC people said that there is nothing that they could do for them at present. They have not explored the possibility with any institution other than NEWAH which, they were told by the project staff, is not, however, in a position to meet their request for some time in that area. Because these households are using water from open unprotected ditches their family members, especially children, are often sick with diarrhoea and dysentery.

One other problem that was raised by the women focus group participants in both communities is that the tube-wells are mostly located along the road side or in an open area without any fencing and additional space where women could freely bathe and do their private washing. The women reported that if they were consulted during the planning and the design phases about what they wanted in the platforms they would have told surveyors about their need. Unfortunately, no one consulted them about this matter.

In response to questioning about how they carry out these activities the women said they now do them in the dark. Even among the 80 tube-wells installed in Magaragadhi, it was observed that 9 tube-wells (5 in 1998 and 4 in 1999) are not discharging water for some reasons. Hence, the women using these tube-wells have been spending nearly 25-30 minutes in collecting water at a time. No initiatives have yet been taken by anyone to resolve this problem; the women caretakers said that although they ran around a lot about this, but still no one has found a useful response. Since they are not receiving any benefit for their time and efforts they do not feel like making any more attempts. Further, their husbands are also not in favour of them working like this, as before, since there is no payment.

RWSSP: The local men and women of different ethnic groups were asked in focus group sessions whether the various tangible and intangible benefits of the project have trickled down to all people in the community including themselves. They said that though the majority of the people in the community have been served with improved water supply there are still about 26 households scattered all over the ward which have not yet received this facility; one-third of such households are female-headed. A visit to such households revealed that most of them are poor and not in a position to have their own tube-wells. Most of them belonged to lower ethnic groups like blacksmiths, Chamar (shoemakers) and other Tarai ethnic groups such as Mallah. The women from these households are still spending hours in collecting water. The children from these households are reported to have suffered from diarrhoea, dysentery and eye infections; the girls from these households are not going to school or are not attending school regularly, as they have to help their mothers in water collection as well as other household chores. Aside from these households, nearly 82 households are also facing some problem of water since about 8 tube-wells are not functioning well and no serious attempts have been made by anyone to resolve these problems. One reason for the diminishing interest from women caretakers is the lack of incentive for them for all their efforts to solve these problems.

Nevertheless, one good aspect in RWSSP is that in locations where there are beneficiaries from all ethnic groups such as Brahmins, Chhetris, Blacksmiths, Tailors and Shoemakers it

was reported and also observed that women from all those groups can collect water from the same tube-wells. Unlike in many other societies, where the lower caste people are not allowed to use water from the same source as the higher caste people, such bias is not seen and reported in this community. For example, tube-wells nos. 5, 7, 8 and 14 are being used by Brahmins, Chhetris, Blacksmiths and Shoemakers. Further, the women from these ethnic groups are also members of the sub-committees though they are not in the main WUC. For example, the chairperson of tube-well no. 1 is a blacksmith while it is a shoemaker in case of tube-well no. 5. However, the bias that has been reported in this project is that though the people from lower ethnic groups are involved in the sub-groups formed to look after the tube-wells the women from such groups and poor households have to walk nearly 20-30 minutes, unlike the women from well-off families who do not have to walk more than 4-8 minutes for fetching water, as in the case of NEWAH projects.

Again, as in NEWAH projects, one complaint that came from the local women is that there is no additional space in the platforms where they could hide themselves while bathing and washing their under-garments, especially the ones used during menstruation. This is difficult in the tube-wells, which are mostly installed along the road side. As a result, women wait until the dark to perform these activities.

FRWSSSP: From the discussion with people of various ethnic groups and classes it is known that ethnic discrimination in receiving project benefits is non-existent in Hile. As reported by the local people the project has covered all the households in the community which were deprived of a water facility. There are one blacksmith and six tailor households, who are traditionally known as scheduled castes, in the project area. The observation of these households showed that they are included in the project. There is also no discrimination in collecting water from the same tap-stand among the women of different ethnic groups. With regard to the non-involvement of such women in various WUC activities it was reported that the number of such women is very low as compared to the women of other ethnic groups like Tamang, Brahmins and Chhetris. As a result the WUC had to give priority to women from other ethnic groups to be in the position of WUC member, motivator and CHVs.

However, the women did say that the project has not been able to meet meeting women's other genuine needs. For example, all the women focus group participants complained that the tap-stands in the bazaar area are all placed in public places and thus it is not possible for them to bathe and wash their private clothes, especially the ones used during menstruation, at the tap-stand itself, as they can be seen by men passers by. They further said they did not have such problem while using the traditional sources which are located in isolated places where men will not normally go. Hence, the women reported that they have to carry water several times a day all the way to their homes to undertake these activities freely. The women further said that it is not possible for them to do it at the tap-stand itself when it is dark, due to the cold. They expressed the wish that a partition should have been made in each platform so that women could perform these activities freely and in seclusion.

A7.4.4 Household Division of Labour

In all communities, Motipur and Magaragadhi in case of NEWAH, Gajedi in case of the RWSSP, and Hile in case of the FRWSSSP, the water fetching is done primarily by women assisted by children. In all focus group sessions held with men and women in all communities, all women and men users unanimously said that it is women who mostly

collect water. Aside from the focus group participants all selected women caretakers, all women PMC and WUC members and advisors, motivators and CHVs interviewed in these communities were also asked about who collects water in their households. Almost all of them said that it is they themselves who do the water fetching in their households. It is only at the time when they are sick, not at home or menstruating, that men, if there are no girl children, collect water. Women use Baltin (pail) and Gagri (clay and metal vessel) to carry water. Gagris are put either on the head or against the waist. In order to explore the effects of the drinking water projects that required women's participation in their management, on the household division of labour, the focus group participants, both males and females, and individual women members were asked to report the daily activity calendar of their households. In all research communities, it is found from the activity calendars and confirmed through observation that women and girl children, regardless of their ethnicity and class, work longer hours and have a higher workload than men and boys (Table A7.2).

In Hile, the women from bazaar area wake up (4.00 am) slightly earlier than the women from villages in order to open their stores but they go to bed (8.00-9.00pm) much earlier than the latter. There is no difference in the time of men from bazaar area, however. In all communities, the working hours vary a little by season.

In all research communities, the normal daily activities which are done in the morning included fetching water, cleaning the house, preparing breakfast, cleaning the shed, feeding buffalo (making Kundo-a kind of food prepared only for buffalo) and other livestock, milking cow/buffalo, carrying dung to the fields, preparing/ploughing fields, preparing food, taking animals for grazing, eating food, and cleaning dishes. The activities which are done after food in the afternoon include rest (the rest time is 3-4 hours for men and 1-2 hours for women but it was reported and also observed that while women do their knitting/weaving and other inside household chores during this period men sleep or play cards or drink alcohol), grazing livestock, fetching water, washing clothes, cleaning house and utensils, and preparing and cooking snacks. Finally, the major activities in the evening include preparing and cooking food, eating, washing dishes, several other household chores like processing cereals, and sleeping. In addition to these regular activities, the other activities included child care, care of other household members, kitchen gardening etc.

Table A7.2: Daily Working Hours of Women and Men in Research Communities

Work Hours\Site	**Motipur**	**Magaragadhi**	**Gajedi**	**Hile**
Waking Time-Women	4.30-5.00am	4.30-5.00am	4.30-5.00am	4.30-5.30am
Waking Time-Men	5.00-6.00am	5.00-6.00am	5.00-5.30am	5.00-6.00am
Sleeping Time-Women	9.30-10.30pm	9.30-10.30pm	9.30-10.30pm	10.00-11.00pm
Sleeping Time-Men	9.00-10.00pm	9.00-10.00pm	9.00-10.00pm	9.00-10.00pm
Work Hours-Women	15-16	15-16	16-17	17-18
Work Hours-Men	13-14	13-14	14-15	12-13

All the male and female focus group participants and the individual women members said that most of the above mentioned activities are performed by women. The only activity which they never perform is ploughing whereas in case of men there are many activities such as fetching water, preparing/cooking food, cleaning house, washing clothes, cleaning dishes, caring for children etc. that they usually do not perform. The activities in which males may help their women are milking animals, feeding livestock and grazing animals. When asked about the large range of activities of women, men's comment was that all women's activities are easier than theirs and require less strength. Women, however, do not agree with this statement as they said they, in addition to all these activities, also have to help the males in the field doing many other works, except ploughing.

In all research communities, because of their heavy workload, the women members said they had difficulty in attending meetings and participating in other project activities. When the project activities demanded their extra time women said they indeed had difficulty in managing both the household chores as well as the project work. However, they still contributed their part - attending meetings, participating in training, providing labour during construction even by going to bed late at night-11 to 12 p.m. Because water was their immediate need, they were willing to provide their time for project work even if it meant sleeping only four to five hours sometime. The women informants further said that though they have given their time in all project activities till now they are not sure whether they can continue giving their time like this in the future, especially because they are not receiving any benefits for all their extra work.

The women informants further said that their male family-members are indeed in favour of them participating in project activities, but, they are not concerned about how women manage both their household and project activities. The women thus said that as long as the men in the households do not share women's traditional work of fetching water, which is increased due to its nearness to home, and in their other households chores, it will not be possible for women to keep actively working in project activities. For example the PMC members and caretakers in Magaragadhi and Gajedi villages disclosed that "they have not been able to hold committee meetings for months and have given up searching for any more help spending lots of their time to repair the malfunctioning tube-wells which are increasing over the years. As long as we do not earn income from the project our husbands will not appreciate our opinions. Since we have been asked to do only the non-technical activities and not provided any technical training we are not in a position to make any income even after the completion of projects, unlike the men, who have received training on latrine construction and masonry", which can give them income any time.

A7.4.5 Household Decision Making

In order to examine the impact of the drinking water project on local women's decision-making ability on household matters, along with their decision-making opportunities in the project activities, as discussed earlier in this appendix, the focus group participants, both men and women, all PMC/WUC members and advisors, motivators, FCHVs and all selected women caretakers in all communities were asked individually and in separate groups about who makes decisions on household matters.

For simplicity, the household matters were broadly divided into three major categories, agriculture, domestic expenditure and capital expenditure. The decisions related to

agricultural activities included the use of land for different purposes, use of organic/inorganic fertiliser, use of local/improved seeds, use of produce for consumption/sale, and labour allocation. Except in the female-headed households and the households where males are temporarily absent the decisions related to agricultural matters are generally made by both sexes in Motipur and Magaragadhi. In Motipur, about half of the male and female focus group participants and all individual female participants said that the decisions on agricultural matters are made jointly by males and females; one-fourth of the participants said that the decisions are mostly made by males; and the remaining one-fourth said it is mostly by females. In Magaragadhi, two-thirds of the male focus group participants, half of the female focus group participants and all individual female participants said that the agriculture related decisions are made jointly by husband and wife. Of the remaining focus group participants, some said the decision is made by males and some said the decision is made by females.

In Gajedi, three-fifths of the male focus group participants, two-thirds of the female focus group participants and nine out of fifteen individual female participants reported that the agriculture related decisions are made by males. The remaining male and female focus group participants and the individual female participants said that such decisions are made jointly by husband and wife. Interestingly, none of the individual and group male and female participants said that any of such decisions is made by women alone. In Hile, a majority of both the male and female focus group participants and all five individual women informants said that the decisions on agricultural matters are made jointly by husband and wife or by adult males and females if there is no married couple in the household.

Regarding the decisions on household expenditure, which included expenses on children's schooling, clothing, small food items and household necessities, medicine and travel, about three-fourths of both the male and female focus group participants and two-thirds of the individual female participants in Motipur and Magaragadhi said that it is made by males The remaining participants said that the decisions are made jointly. The individual female participants, who are the PMC members and the caretakers, also said that their husbands consult with them before making the final decision. In Gajedi also, the pattern is the same. Nearly, four-fifths of the male focus group participants, three-fourths of the female focus group participants and 12 out of 15 individual female participants cited that the decisions related to household expenditure are made by men. In case of the remaining participants the decisions were made jointly. On the contrary, in Hile, three-fifths of both male and female focus group participants and all individual women informants reported that the decisions related to domestic expenditure are made by both sexes. The remaining male and female participants expressed that such decisions are made by men.

Concerning the decisions related to capital expenditure such as borrowing and lending money, sale and purchase of land and livestock, gift/donation, almost all the individual and focus group participants (both males and females) in Motipur, Magaragadhi, Gajedi and Hile said that they are made by men. A majority of the male and female focus group participants and all individual woman informants in NEWAH and FRWSSSP areas, and about half the male and female focus group participants and all individual woman informants in RWSSP area, said that their husbands inform them before making the final decisions. From the discussion with all the men's and women's groups and individual women members in the selected areas it was found that in the households which have women in the PMC/WUC or in

the position of caretaker/motivator/FHV men consulted their women while making major decisions, more than in the households which do not have such women.

Regarding the reasons for women's poor involvement in decision-making, illiteracy, lack of access to and control over income and men's biased attitude that women are not capable of making decisions are the major ones, as reported by nearly four-fifths of the male and female focus groups participants in NEWAH projects, three-fifths in RWSSP, and two-thirds in FRWSSSP.

APPENDIX 8

A List of Suggested Action Plans for Improving Gender Sensitivity at Various Levels in the Drinking Water Sector

This chapter presents a detailed list of action plans that help to promote gender sensitivity at each level - international to project/community in the drinking water sector. These action plans have been drawn up based on the findings of this research discussed in Chapters 5, 6 and 7 and the conclusions presented in Chapter 8.

A8.1 Background

Contemporary gender and development (GAD) thinking has put emphasis on the need for the drinking water sector to address both women's strategic gender interests and their practical gender needs. Both of these are essential for the sustainability of water supplies as the former will strengthen the empowerment of women and the latter will, in this case, improve the availability of acceptable water services nearer to their homes. Accordingly, this research, which is the first of its kind, explored gender issues at various levels – international to community - presuming that the level of gender sensitivity at one can affect the gender sensitivity at the other. Because of this uniqueness, attempts have been made in this research to prepare an exhaustive list of action plans for each level so that the list can serve as a good reference for water planners and policy-makers to plan and design their water supplies in a gender sensitive way. These detailed action plans are based both on the findings derived from this research and the literature. Some of these action plans are of short-term nature as they can be applied immediately while some of them are of long-term nature as their application might take months or years.

Nonetheless, the advantage of such a comprehensive list of action plans is that, whenever the people and agencies working in the water sector find themselves ready to address gender issues in their work, they can consult this list to ascertain what steps they need to take at various levels. Furthermore, the other advantage of such wide ranging action plans is that the water planners and policy-makers can choose to follow immediately the ones that they feel are less challenging to them though in principle all of them have to be followed in the long run. In turn, even the application of these few actions should bring some gender changes in their work. On the other hand, if the suggested action plans were more limited and the planners and policy-makers find them challenging and difficult to implement in the short-term, there is a danger that no gender changes will come about in the agencies' work.

It also needs to be highlighted that once an agency follows some of the actions suggested here, this step, in itself, will motivate and encourage the agency to initiate some other actions as all these actions are interrelated; the successful application of one action demands the integration of another action and so on. Moreover, depending on their organisational environment, while some agencies find some actions suitable for them to initiate, others will find some other actions suitable to them. The advantage of agencies applying different combinations of suggested actions is that, all those actions will, in the long run, be followed

by all of them, as they will be influencing each other from the sharing of positive experiences of their works through workshops, seminar, meetings, publications, etc.

However, in order for the action plans proposed below to be taken into consideration at each level, an appropriate environment, with strong commitment from people concerned, is required. Some of the factors that can help in creating such an environment are as follows:

- Lobbying by international women's fora and various women's groups of the international donors and the international community engaged in the drinking water sector to make the latter's sector strategies gender responsive.

- Continuous pressure from the concerned donors and the international community on national governments and their partner NGOs, INGOs to address gender issues in their policies and practices.

- Lobbying by the national level women's advocacy groups, development practitioners, and gender sensitive people and agencies of the national governments. For example, the issue of women's property rights, raised by women's advocacy groups with support from various development practitioners and agencies working for women in development, has been under discussion in the parliament in Nepal for a couple of years. Though the parliament, which has 94% male members, has not yet approved this bill concerning women's property rights, it also has not been able to put aside this bill. It is likely that this bill will be passed soon.

- Evaluations of water supply programmes both inside and outside the country which lead planners and policy-makers to understand, themselves, that the lack of gender sensitivity in water supplies can lead to their ineffectiveness in providing benefits to people. Such self-realisation can also develop through the water planners' and policy-makers' interactions with various people both inside and outside the country working in the field of GAD through workshops, seminars, training, meetings etc. For example, NEWAH has initiated a number of gender related activities such as gender workshops for its senior staff, gender training for all its junior staff, formation of a number of gender and poverty units, etc. This has come about through a number of reasons: recommendation of its donor (WaterAid) for the assistance of a gender consultant, interactions with this researcher during the course of this research and the self-realisation of its staff from experiences of its various projects, including one funded by the International Water and Sanitation Centre (IRC), Hague.

- Spontaneous actions and reactions from many more women at various levels, as their literacy and educational status increases, regarding their strategic involvement in various stages of the drinking water sector.

- A national level conference inviting all concerned stakeholders from government, NGOs, INGOs, bilateral and multi-lateral agencies, and the private sector, who are working in water supplies, to help them realise the importance of addressing gender issues in water supplies not only for their sustainability but also for overall societal development.

Because the findings of this research and most of the action plans suggested below have already been shared in two workshops held with some government officials (at the regional level of DWSS), including some staff from some multi-lateral agencies such as UNICEF, and

with NEWAH staff, and their comments have already been incorporated in the proposed action plans, it can be said that these action plans have higher chances of being followed by the agencies such as NEWAH, RWSSP and FRWSSSP, working in the water sector.

Before discussing the specific conclusions and the proposed action plans, it is worth to state here the major conclusion of this research which is: the drinking water projects carried out by the three agencies studied are still concerned only with meeting one of the practical gender needs of women and men (community water supply) but not with women's strategic gender interests. These strategic interests include women's involvement in various project activities, changes in the traditional gender division of labour, improvement in women's access to and control over resources and their bargaining power, equity in sharing of benefits, and increase in women's confidence to initiate new development activities. The specific conclusions drawn at each level studied, together with some proposed actions, are presented below.

A8.2 International Level

In view of the discussions in Chapter 4, it can be concluded that the policies and the sector strategies of international donors such as the World Bank, ADB, FINNIDA and WaterAid, are weak in addressing gender issues properly. Because the donors demand that their partner governments and other local agencies should adopt their policies, the gender insensitivity in the documents of the former can also lead the documents of the latter to be gender insensitive. Hence, the following action plans are suggested to increase gender sensitivity at this level. Nevertheless, it is necessary to point out here that the conclusions made in this section are based only on a review of secondary sources and they are not backed up by primary information, and hence, they need to be considered with caution.

1. Drinking water should be considered as an economic good only in cases where an increase in income from its commercial uses is possible. In other cases, it needs to be regarded as a social good. The policy documents of all donors should clearly spell out when and under what circumstances drinking water should be treated as an economic or a social good so that the effects of improved water services on social aspects of the lives of human beings, such as health and hygiene, are not undermined.

2. The policy documents of donors should clearly mention the roles that women should play in various phases of water supply developments such as planning, capacity building, human resource development, and operation and maintenance, where the importance of women's roles, more than those of men, has been well recognised.

3. Donors should clearly spell out in their policy documents that the national governments and their partners - NGOs, INGOs and other private sector players- should make provision for subsidies for those households, such as those which are female-headed, who are poor and have difficulty to meet the project costs, so that such people are not excluded from improved water services which are essential for basic survival.

4. The donors need to be gender specific in their policy documents avoiding the use of terms such as "community", "poor", "users", "vulnerable", etc., as the lack of clarity in these words can lead men to receive more benefits than women.

5. Because donors can play a key role, due to their financing power, in putting pressure on national governments and their other partners to address gender issues in the latter's policies and practices, they should undertake regular monitoring and evaluation of the latter's programmes, including gender as one major component, so as to ensure gender sensitivity in those programmes.

A8.3 National Level

From the analysis of the Water Resources Act 1992, Water Resources Regulation 1993 and 1998, the Ninth Plan (1997-2002), and the National Water Supply and Sector Policy (NWSSP 1998) in Chapter 4, it can be concluded that the drinking water sector at the national level in Nepal is gender unaware. Because the planning and the design of water supplies by various government agencies, and by NGOs, INGOs and the private sector is largely guided by the national policies, the gender unawareness seen in the former can lead to gender insensitivity in the latter's water supply activities. Hence, the following action plans are suggested to improve gender sensitivity at this level. As in the case of the international level, it is necessary to state here that the conclusions made at this level are mainly based on a review of secondary information. Nonetheless, because the researcher had access to all national level information related to drinking water sector, is familiar with the national context of the sector, being a resident of Nepal, and had discussions with several senior development practitioners and policy-makers, the proposed action plans can be considered seriously.

1. The legislation, development plans and policies should be gender specific in defining the roles and responsibilities of women and men in the drinking water sector. The gender roles need to be clear in all stages from planning to operation and maintenance of water supply projects so as to increase their chances of being sustainable.

2. Provision should be made in the legislation for including women as members in committees such as District Water Resources Committee, Water Resources Utilisation and Conflict Resolution Committee, Service Charge Fixation Committee etc. so that the rules and regulations that they develop at the local and the district levels can address women's genuine problems, needs and constraints in water supplies. In situations, where men are not seen to be gender sensitive, as was found in all selected agencies, it can be expected that women, by virtue of their sex, can better understand the problems of other women, as was found in this research.

3. The policy-making bodies such as the VDC, DDC, NPC, and Parliament, at the political level, need to be gender balanced. The present provision of allocating only five percent of seats for women to contest the election of the Members of Parliament should be increased to 25 per cent. The same provision should be made for those who contest the elections to the VDC and the DDC. A provision should also be made to have at least one woman in the National Planning Commission (NPC), which is composed normally of six persons. Unless and until there are enough educated and qualified women to compete on equal terms with men, they should be given positive discrimination to be in such bodies.

4. Provision should be made in the legislation for women's equal access to education and family property so that they can use these means for contesting elections and so on. The Ministry of Education should pay special attention to create an environment, by

mobilising other agencies - multi-lateral, bi-lateral, INGOs and NGOs - involved in the development sector, such that girls receive scholarships and various other incentives such as allowances for school uniform, books and stationery, etc. to study both at schools and colleges, including the study of civil engineering, where their number is very small. Women's control over property can also ensure that higher attention is given to girls' education.

5. A provision should be made for a separate committee or a gender person at the Secretariat of Parliamentary Affairs and/or Ministry of Law and Justice, which prepares all Acts, Rules and Regulations, by-laws, resolutions etc. and forwards them to the Parliament for approval, to ensure that all these policies are gender sensitive. This secretariat, in co-ordination with the Cabinet (Secretariat of the Ministers), should also make arrangements for gender orientation for members of parliament and ministers. A similar arrangement needs to be made by the Ministry of Law and Justice in co-ordination with the Ministry of Local Development to organise gender sensitisation seminars and workshops for DDC and VDC officials, who are involved in the formulation of plans and programmes at district and village levels.

6. The national policy that requires only two women as a minimum requirement in local water committees needs to be amended to include at least half women in such committees representing different categories in terms of caste/ethnicity, class etc. so that the chances of other private sector agencies, NGOs and INGOs, limiting participation to only two women in their water committees can be minimised. Provision should also be made in the national policies for gender sensitisation activities to local women and men so that the men can prepare themselves for sharing women's work, and remuneration for women for their added responsibilities.

7. Along with an emphasis on cost-recovery aspects for the sustainability of water supplies, the national policies should make clear provision for subsidies for those who are poor, and especially those from female-headed households, so that the benefits of improved water services are enjoyed by all in a community, even if they are run by the private sector for profit.

8. The Ministry of Education should ensure, by establishing a quality control body, that gender as a subject will be taught right from the beginning of the school (both in public and private institutions) and that all the text books, especially those at the school level, that are produced by the Janak Education Materials Centre/Nepal for government schools, and that are produced by the private sector especially for private schools, are gender sensitive. At present, many text books for use at the school level are gender biased and reinforce the traditional gender division of labour.

9. A special policy needs to be formulated to increase girls' enrolment in civil engineering studies, so that there are more women engineers and technicians available to work in the drinking water sector at various bureaucratic levels, including DWSO, DWSS and MHPP. Because boys are chosen in preference to girls, for various social, cultural, economic and political reasons, to be sent to better schools, the latter have difficulty in competing with the former for the limited seats available to study civil engineering. To improve the situation, a number of suggestions are offered: i) expansion of present limited seats available for studying civil engineering, ii) giving positive discrimination to girl students

if their scores are only marginally different from those of boys, iii) offering scholarships to girl students to continue their education, and iv) increasing the present quota of 10 per cent allocated by the Tribhuwan University/Nepal Engineering Campus to girl students to at least 25 per cent.

10. Similarly, provision needs to be made for a separate women's cell or a gender specialist at the DWSS and the MHPP levels, which prepare all water-related rules and regulations, national policies, Acts, etc. to ensure that all these policies properly address gender issues in the water sector at all levels. The Ministry of General Administration (MGA), which organises various training events, as required for all civil employees, through the Nepal Administrative Staff College (NASC), should make arrangements for providing gender training to all staff working in the DWSS and MHPP so that all the activities of the latter become gender sensitive. In order to ensure that all the staff working with the DWSS and MHPP are gender sensitive, the MGA should instruct the NASC that all their training courses should include gender as a component, so that the frequent changes of civil employees that often take place in government service do not affect the gender sensitivity of the work of the DWSS and the MHPP.

11. All national policy documents should clearly specify the roles of women and men in various project activities instead of defining them by undifferentiated terms such as 'communities', 'poor', 'users', 'vulnerable' and 'marginalised', which appear gender neutral. In reality such terms are not neutral and thus, benefit men more than women.

A8.4 Institutional Level

From the analysis of the institutional policies and practices of the selected agencies, NEWAH, RWSSP and FRWSSSP, in Chapter 6, it can be concluded that institutions in the drinking water sector need to make considerable improvements before they can be considered to be gender sensitive. The areas where the agencies need improvements are presented below. Though all the points discussed below are equally important, some points that need to be considered to initiate the engendering process, as learned from the field work with NEWAH which is a little ahead of other two in this respect, are: presence of more women, gender training, participatory orientation, and provision of human and capital resources. Once the agencies such as NEWAH, that are active in the water sector in Nepal, appreciate the importance of addressing gender issues in water supplies through various means as discussed earlier, they need to know how and in what areas they need to be gender sensitive. The following action plans serve this purpose:

1. There should be gender balance in the policy-making bodies like Board/Executive Committee/Senior Management Team/Steering Committee/Project Support Unit/Project Management Team etc. in the institutions in order to greatly improve the likelihood that the institutional objectives and strategies, and other policies and practices address gender issues. One way of achieving this is by increasing the number of women staff and women members in such bodies. It is also necessary to ensure that the lower level staff, including women as they are mostly at the lower levels, are invited for consultation before the policies are finalised. This process can ensure that the institutional policies can address the needs and concerns of both women and men at all levels.

2. The institutions, such as NEWAH, RWSSP and FRWSSSP, engaged in water supplies, need to address the issue of strategic gender interests of women in their objectives and strategies in order to empower women and increase the chances of their water supplies being more effective in meeting practical needs of people. In order to do so, these agencies need to ensure that they clearly specify the roles of women and men in all activities wherever necessary and do not leave such gender differentiation open by using words such as "marginalised", "poor", "labourers", "community", since experiences have shown that the use of such words tends to benefit men more than women.

3. As the presence of less women staff at any levels can, as found from this research and the literature, lead to the failure of agencies to meet women's genuine needs and concerns, attempts should be made to increase their number and to provide them with appropriate facilities and working conditions, which should all be included in the personnel policy. The following steps are proposed for this purpose: i) the recruitment policy should clearly state that 'x' percentage of the staff will be women so that this factor is always considered while recruiting employees, ii) advertisements should clearly indicate the facilities that women employees will receive and the career opportunities they have so that they feel encouraged to apply, iii) the interview panel should be gender balanced and preferably should include a gender specialist and iv) since literacy and educational attainment of women are far less than those of men for various reasons, positive discrimination, along with the provision of pre-service and in-service training, should be applied in favour of women.

4. Along with efforts made to recruit more women, efforts should also be made to retain them. Some suggestions, in this regard, are as follows: i) female staff should be allowed to work in pairs when extensive travel, especially to rural areas, has to be undertaken, ii) efforts should be made to recruit women locally so that the problem of female mobility can be minimised, iii) policy should be made to give flexibility in office hours to the female staff with small children for breast-feeding or for taking care of them; the alternative to this is to employ a baby-sitter to take care of small children of both men and women staff, and iv) because the female staff have to play triple roles they, especially those with small children, should not be asked to work late hours nor to come to the office on holidays, even if there is a provision of extra payment for such over-time work, unless they themselves are willing for it.

5. All these provisions or facilities need to be written into policies and conditions so that female staff can use them as their right and not as a privilege to them; when such matters are written into policy, it guarantees that the facilities will continue even with changes in the management, and even the staff with less influence can enjoy them.

6. The presence of more women staff in general, and in senior posts and technical positions in particular, can, as found in this research and many other studies, ensure more gender sensitive activities. These include training, workshops, the presence of women in field teams, various facilities for women employees, understanding community women's genuine needs and concerns etc. Therefore, attention should be paid to affirmative action at job entry points, lateral entry, and necessary training. Any extra cost incurred to bring women into the forefront of development will be very productive in the long run, as their contribution can lead to a society with sustainable human development.

7. Agencies engaged in water supply and other development activities should make provision for a regular forum or meeting where all staff, including women, who are normally in lower positions, can share their concerns with the management, and create an environment where all the staff can feel that they are part of the organisation. One way of achieving this is by involving them in the discussion of policy matters.

8. The development agencies such as NEWAH, RWSSP and FRWSSSP, should include gender training, for the members of their policy-making bodies and for all staff, in their strategic plans. They should consider gender training as a continuous activity with regular follow up, so as to remind of all agency staff the importance of considering gender aspects in various agency activities.

9. In order for various gender and development activities to be on the agenda of the development agencies it is essential that they make provision for appropriate human resources (gender unit/gender specialist etc.) and adequate budget. Otherwise, all the efforts made in this respect are a waste of time.

10. In an attempt of engendering their organisations, the management of agencies such as, NEWAH, RWSSP and FRWSSSP, should try to find out whether there are people in their agencies who are already taking some initiatives or showing some interest in this matter. Involving such people in this process can speed up the change, as they will tend to be committed and sincere in their efforts because of their spontaneous feeling towards the change.

11. Finally, if agencies such as NEWAH, RWSSP and FRWSSSP are committed to make their water projects gender sensitive, they should go through strategic planning and evaluation exercises from time to time so that the extent to which gender and development activities have been emphasised, can be monitored and corrective actions can be taken regularly.

A8.5 Project and Community Levels

From the analysis of the project management guidelines and the procedures followed while planning and managing water supply development activities in Chapter 6, and of their effects in meeting women's strategic gender interests along with their practical gender needs as discussed in Chapter 7, a number of conclusions have been drawn. They are:

- The project management procedures of the selected agencies are not gender sensitive though they look a little better on paper than in practice, especially in the cases of RWSSP and FRWSSSP.

- The chances of the drinking water projects studied empowering the women in the project communities and sustaining the project benefits to them and their families are minimal if corrective actions are not taken on time.

- Illiteracy has been found to be an important factor affecting women's participation in project activities. Committees with only women, half women or only a few women, are all dependent on male members or advisors in undertaking the paper work and contacting other institutions as required. Women's poor level of literacy was reported as one major

reason for this dependence, by women committee members themselves as well as by other local men, project staff and NGO staff. It can thus be concluded that the higher the level of literacy of community women the greater can be their participation in project activities.

- Lack of sharing of women's work by men is another factor affecting women's participation in project activities. Though the husbands of the PMC or WUC members in NEWAH and RWSSP and of many other women in all communities, have no objection to their wives' participation in committee activities, these women have not been able to be much effective in committee activities since their husbands are not helping them in undertaking their household chores. Hence, one conclusion that can be drawn from the research is that the support extended by male members of the household does not alone create a conducive environment for women to participate in project activities, unless they share the household chores when women are undertaking project activities.

- The research findings, especially those found from the field work with NEWAH projects, reveal that women's participation is affected by the type and the frequency of benefits that they receive from the projects. Women's participation was relatively high as long as they were receiving various tangible and intangible benefits, such as enhancement of knowledge through various training, allowances for their participation in those training, personal satisfaction from visits to the project offices, meetings with project officials, etc. However, after the project was completed and handed over to the local PMC or WUC, the women PMC or WUC members, together with the women caretakers, no longer saw any attraction to hold committee meetings, raise water tariffs, or to show interest to resolve the problems of malfunctioning tube-wells, as they were no longer receiving any remuneration or other benefits for their extra work. Furthermore, the lack of interest of women and men caretakers in resolving the problems of malfunctioning tube-wells was also reported both in NEWAH (Magaragadhi) project and RWSSP. This finding allows to conclude that the lack of income earning opportunities or clear follow up activities that can be undertaken by women in the project areas can inhibit their participation in project activities.

- The findings of this research also suggest that water projects are still less concerned with addressing the issue of equity in project benefits, as many women from the poor households are still not receiving project benefits. Even among the beneficiaries, the poor women are spending more time in collecting water than others. These situations have prevented the girls from such poor households from going to school, as reported in many other studies, since they have to extend their help to their mothers in household chores, including fetching water, that demand significant amounts of time. Hence, the conclusion that can be drawn is that lack of equity in project benefits can prevent girls from poor households from going to school.

- It can also be concluded from the findings of the research that the presence of more women in the project activities, more women in the position of caretakers, women-led NGOs, more women in the PMC etc. can all help to increase women's confidence. This was particularly observed in NEWAH projects (though this impact was limited to the few women who were in the PMC and in the position of caretakers). The findings from all project communities also lead to conclude that technical training, such as in maintenance and masonry, can be even more instrumental in enhancing women's status, both in the household and the community, as these skills can increase their income.

- Meeting women's strategic gender interests such as involving women meaningfully in project activities, shifting the traditional gender division of labour from women to men, increasing women's bargaining power with higher income, bringing equality in the distribution of project benefits and increasing women's status can lead not only to sustainability of project benefits but also to many other advantages, which all lead to a society with sustainable human development.

The actions to be taken to improve the situation at these levels have been grouped under three major categories namely, pre-construction stage, construction stage and post-construction stage as follows:

A. Pre-Construction Stage

1. The agencies such as NEWAH, RWSSP and FRWSSSP, should make it public while publishing their water supply activities that the involvement of women of the community, which comes to negotiate a water project with them, is essential from this early stage to all other forthcoming activities.

2. The application letter or the request form submitted by the recipient communities to the project/concerned office for solving their problem of water which does not give evidence of women's involvement in identifying the problem either through their signatories or self-presence should be sent back with a clear message that women should be involved from the early stage of need identification. This mechanism will help the local men to realise the importance of involving women in water supplies.

3. The number of women staff and presence of staff with exposure on gender issues should also be one of the several criteria used for selecting NGOs, so that they do not bypass women in project activities. There should be a provision to provide gender training along with other project management related training to the NGO people who will be involved in the proposed water supplies.

4. The selection of project location should be made following not only the technical criteria but also social and gender dimensions, such as how many men and women will benefit, what will be the changes in men's and women's lives, will women be empowered through the project activities etc.

5. The feasibility/detailed survey team should have both male and female members so that the gender dynamics in the project communities can be well understood. Poor illiterate rural women feel more comfortable sharing their concerns with a person of the same sex. As a result, the projects developed thereafter will have higher chances of meeting the practical as well as strategic needs of women.

6. The staff involved in the project management should have received gender training so that they give equal importance to technical as well as social and gender dimensions of the project, can better understand the existing gender relations in the project communities, and plan, design and implement projects addressing both women's and men's concerns.

7. Along with the emphasis on the technical information, carrying out a gender analysis of the project communities is essential. The gender analysis should focus on issues such as gender relations between men and women, the existing gender division of labour, men's and women's access to and control over various resources including that related to water,

types of benefit that local men and women should receive from the project, types of men and women that might benefit most from the project, etc. The time to be spent in doing a gender analysis should be adequate not only to collect gender-disaggregated information but also to verify whether the local women and men are in a position to meet the conditions, such as the need for cash and labour contributions set by the project. The field staff should be given adequate incentives so that they do not rush to finish the project work and bypass women in the process.

8. No meeting should be held with the local community without the presence of an adequate number of women. Meetings should be held in places and at times appropriate to women. In meetings, they should be allowed to sit in front and encouraged to express their views. In places where women have difficulty in public speaking, due to socio-cultural factors, separate meetings should be held with them.

9. Since women are the principal collectors of water any meeting about the selection of location of tube-wells or tap-stands should be held with them so that they are not located along the road side or in the middle of the market where women have difficulty to bathe and wash their private clothes freely or in other inconvenient locations. The proposed platforms should have provision for extra space for all necessary activities. It is essential to ensure that women from all caste/ethnic groups, who are poor and who are from female-headed households are also invited to participate in this process so that they, together with women from well-off families, can also benefit from the project activities.

10. The formation of any WUC should take place only in presence of an adequate number of women, representing not only geographic locations but also ethnicity and class. The women themselves should be given the opportunity of selecting women members of the WUC. At least half of the WUC seats, including one of the positions of chairperson or vice-chairperson, should be allocated for women representing various ethnic groups and class; there should be a strict policy not to accept WUCs which do not meet this condition. The WUC members, both women and men, should be made clear about their roles and responsibilities.

11. Being the main collectors of water women can notice any defects in the tube-wells/tap-stands, immediately. Hence, women should be preferred to be in the position of caretakers/VMWs with a provision of adequate remuneration. This can increase the chances of the projects being sustainable and is also instrumental in enhancing women's self-esteem as they possess technical skills which can give them opportunities to increase their income not only in this particular project but elsewhere as well. No need to say that access and control over income is one of the strong determinants of women's higher status.

12. The training given to the members of the WUC, caretakers/VMWs, CHVs and health motivators should also include gender aspects so that any activity which they carry out is more likely to be gender sensitive. The training should be organised locally to increase women's participation and at a time which is convenient to women. The presence of a woman in the training team is preferable. The materials used in the training should be gender neutral or positive towards women. The project staff should make provision to provide technical training such as latrine construction and masonry to both women and

men so that the former can also increase their income and thereby their bargaining power and status.

13. The agreements between the project, NGO, if any, and the WUC should specify the social and the gender aspects to be fulfilled by each party in more detail than is currently practised as this can make each stakeholder feel that the social and the gender activities are equally as important as the technical activities.

14. The project should carry out gender sensitisation activities with local women and men so as to make them, especially men, realise the importance of involving women in the management of water projects. This will also help them to realise the increased burden of women and motivate them to share the household responsibilities.

15. The project should have adequate social preparation time to prepare women to take up the new project responsibilities which are not familiar to them. Women can build up their confidence to shoulder the WUC activities, including the operation and maintenance of the tube-wells or tap-stands, as well as to initiate new activities in their communities, with enough time to prepare them mentally. The use of outside project staff for a longer period to do this activity in the field will be expensive and impractical due to provision of a limited field allowance. Therefore, one active well respected and moderately educated woman can be hired with some cash incentive and trained to work with the women WUC members as a motivator throughout the project period. The role of this woman can be to interact frequently with the women WUC members and help them in all WUC activities, such as calling meetings, keeping minutes of meetings, visiting offices, doing minor repairs and maintenance of tube-wells/tap-stands, keeping financial records, monitoring project progress etc. The other activities that need to be introduced or co-ordinated at this stage are literacy classes, gender sensitisation activities, skill-oriented training and income generating activities as these can motivate women to continue working in the management of water supplies.

16. Thorough monitoring of all the pre-construction activities should be carried out by the concerned agency, so as to make sure that the field staff are following every step properly, especially in terms of being gender sensitive in their activities. This is a difficult and time consuming task, demanding a lot of patience from the field staff, which needs to be carefully assessed in order to ensure success.

B. Construction Stage

1. Women technicians, if there are any within the project agency, should be sent to the field. By working in the field the women technicians achieve more confidence in their abilities and this will also give them more income. The presence of women technicians can help to mobilise local women in the construction work.

2. The roles and responsibilities of the local women and men and the constraints against their participation should be understood before starting the construction work. This will help to avoid conflicts of interest between the project work and the community's other responsibilities. For example, people, especially women from female-headed households, who have to rely on wage labour for survival, may be reluctant to come to the project work during the time when they have higher chances of receiving paid work, unless special provisions are made for them.

3. Technical training such as that for latrine construction and masonry which can possibly generate income should be given not only to men but also to women, so as to increase the latter's bargaining power.

4. Women should be given opportunities to be hired as skilled labourers who are always paid. The tendency of hiring women only as voluntary workers needs to be changed. When women and men are hired as wage labourers they should be paid equal wages if the duration they work is same.

5. Women should be informed in a timely way and fully involved in making major decisions, including those relating to financial and other management aspects.

C. Post-Construction Stage

1. Some income earning opportunities should be introduced for women, using the time saved from water collection, to increase their income and motivate them to continue their involvement in project activities. Such activities should be developed in a fully participatory fashion taking into account the needs, wishes and capacities of local women.

2. Literacy classes should be organised for women to increase their awareness, build up their confidence and enhance their self-esteem, all of which lead to meeting women's strategic gender interests.

3. A mechanism needs to be developed for the collection of water tariffs on a regular basis. This can ensure timely and effective operation and maintenance of the water system increasing the sustenance of the project benefits. The economic status of the household, number of members in the family and the person heading the household, whether male or female, are the factors that need to be considered while fixing the amount of water tariff per household. Payment in kind can also be encouraged, based on households' capacity to pay in cash.

4. Since the emphasis is to be on recruiting women in the position of caretakers, projects should develop a mechanism to pay some remuneration as an incentive to them so that they become more involved in their work. This will also help to increase women's bargaining power both in the society and the household, one of the key objectives of a gender sensitive project. For cost effectiveness, one caretaker can be assigned the responsibility of 4-5 tube-wells.

5. Projects should develop clear and simple monitoring tools that the local people, especially women, need to follow after the completion of construction activities. The involvement of the local people in the post-construction phase is a strong indicator of project sustainability as well as the fulfilment of strategic gender interests.