UNIVERSITY OF SOUTHAMPTON

FACULTY OF SOCIAL AND HUMAN SCIENCES

Geography and Environment

An Evaluation of Participatory Ecotourism Planning Approaches in the Kurdistan Region of Iraq

by

Sarook Sarky

Thesis for the degree of Doctor of Philosophy

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ABSTRACT

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AN EVALUATION OF PARTICIPATORY ECOTOURISM PLANNING APPROACHES IN THE KURDISTAN REGION OF IRAQ

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This thesis aimed to evaluate stakeholder attitudes towards, and tools for, participatory planning in the ecotourism sector in Kurdistan. Ecotourism has been adopted widely to promote conservation and community development. Ecotourism has the potential to support post-conflict recovery as it requires multi-stakeholder involvement, and has the capacity to unite different community sectors and the government. Ecotourism development may, however, encounter a range of challenges in post-conflict areas and areas lacking democratic governance, an area which has been relatively under-researched (Nianyong and Zhuge, 2001; Fletcher, 2009; Altinay et al., 2007). Research is needed to underpin ecotourism development, especially in places where it is newly introduced. By evaluating participatory approaches to ecotourism development in Kurdistan, this study addressed the following research gaps: limited understanding of the needs of local communities in participatory planning; barriers and enablers to participatory planning and the potential of ecotourism in such post-conflict settings. In addition, the literature cites use of GIS-based Multiple Criteria Evaluation (MCE) for site selection, but generally with limited stakeholder consultation and a lack of critical appraisal of stakeholder input.

Thirty-eight participants from different stakeholder groups, including civil society, private bodies, government agencies and academia, were consulted to gain an understanding of their perspectives on ecotourism development and potential ecotourism sites. The initial consultation used a participatory workshop adapted from the Ketso toolkit, followed by complementary semi-structured interviews with additional stakeholders selected via chain-referral sampling. After two years, the same stakeholders were consulted again about their preferences for potential ecotourism sites and the sites' suitability using a new, iterative GIS-based MCE approach. Local community attitudes and intentions towards conservation and a proposed ecotourism project were examined using questionnaire-based interviews with 70 respondents and RRA, adapted from a conceptual framework developed by Lai and Nepal (2006) in Taiwan.

The workshop and survey suggested stakeholders lacked interest in participatory planning, and held ambiguous attitudes towards ecotourism development, particularly local community members, who were marginalised by other stakeholders. Several approaches could move Kurdish ecotourism forward. NGO participation should be encouraged, as NGOs are likely to be more trusted than government. Greater environmental education and awareness among stakeholders is essential to strengthen decision-making. Critically, local communities need to be empowered and engaged.

Insight into the degree of consensus among different stakeholders was gained using a novel MCE and GIS approach, which developed suitability scores for proposed destinations based on stakeholder assessment of site criteria, followed by a comparison of suitability scores for destinations proposed by stakeholders versus 'control' locations chosen without reference to stakeholders. 78 destinations nominated by participants had significantly higher MCE scores than 'control' locations (58), suggesting consistency in stakeholder input. The application of existing techniques (questionnaires and a Ketso-derived stakeholder workshop) in a post-conflict setting forms part of the methodological contribution. The principal methodological contribution was to devise a GIS-based technique for assessing consistency in stakeholder input to participatory suitability mapping. The technique has potential application in ecotourism as well as other forms of participatory suitability mapping, and could be transferable to settings outside of Kurdistan.

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DECLARATION OF AUTHORSHIP

I, Sarook Sarky, declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

[title of thesis]: **An Evaluation of Participatory Ecotourism Planning Approaches in the Kurdistan Region of Iraq**

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. [Delete as appropriate] None of this work has been published before submission [or] Parts of this work have been published as: [please list references below]:

Signed:

Date: 26/04/2016

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Definitions and Abbreviations

AE	Appreciate Enquiry
CBO	Community Based Organisations
ANP	Analytical Hierarchy Process
CHaP	Cultural Heritage and Peacebuilding
CNR	Conservation of Natural Resources
EN	Endangered
GBT	General Board of Tourism
GIS	Geographic Information Systems
GPS	Geographical Positioning Systems
HSNP	Halgurd Sakran National Park
ISIS	Islamic State in Iraq and Syria
IUCN	International Union for Conservation of Nature
KBA	Key Biodiversity Area
KRG	Kurdistan Regional Government
LC	Lest Concern
MCE	Multiple Criteria Evaluation
MoP	Ministry of Planning
NArrs	Neo-Assyrian rock-face relief
NGO	Non-Governmental Organisation
NI	Nature Iraq
NT	Near Threatened
PCT	Preservation of Cultural Tradition
PDK	Kurdistan Democratic Party
PEP	People Empowering People
PEPM	Participation in Ecotourism Planning and Management
PES	Potential Ecotourism Site
PKK	Kurdistan Worker Party
PUK	Patriotic Union of Kurdistan
RRA	Rapid Rural Appraisal
SCD	Sustainable Community Development
TIES	The International Ecotourism Society
TIRO	Tourism Information and Record Office
VU	Vulnerable
WTO	World Tourism Organisation

Chapter 1: Introduction

Ecotourism has the potential for reconstruction of areas undergoing post-war recovery through its practice of attracting visitors who consider environmental preservation and human well-being an important aspect of their experience. Since ecotourism requires multi-stakeholder involvement, it has the capacity to unite different sectors of the community and the government in joint programmes, and it was these aspects of the industry that led me to undertake this thesis. However, ecotourism development in areas with little history of democracy, little relevant data availability and low economic development may encounter a range of challenges: financial constraints, collaboration issues between multiple stakeholder groups, conflicts between protected areas and local communities, and bureaucratic and centralized power (Nianyong and Zhuge, 2001; Fletcher, 2009; Altinay et al., 2007; Issa and Altinay, 2006). Research is needed to underpin ecotourism development, especially in places where it is newly introduced.

1.1 Researcher Positionality

1.1.1 Researcher Background

After completing my undergraduate degree in 'Forestry' at the University of Duhok (UoD), the Kurdistan Region of Iraq in 2003, I started working as an assistant researcher at the Faculty of Agriculture and Forestry (FAF) within the UoD for two years. This position developed my interest in environmental management research, so I decided to undertake an MSc in Conservation and Land Management at the University of Wales, Bangor. My dissertation research investigated 'the potential for ecotourism development in the Kurdistan Region of Iraq'; as a contribution to this, I conducted a questionnaire survey of a sample of UK tourists. This survey suggested that once those interviewed were made aware of the region's cultural and natural heritage, these tourists would be interested in visiting Kurdistan. After my MSc, I returned to Kurdistan and worked as an assistant lecturer, teaching undergraduate students various subjects, including tourism and recreation, for three years. This further led me to believe that ecotourism – if appropriately planned with due participation and consideration for local communities – could be a powerful approach towards reconstruction of my home region.

1.1.2 Researcher Bias

In the first place, the selection of research topic comes from my personal interest in ecotourism, which itself is related to my past research, Kurdish nationality, and employment background and how these interact. Mehra (2002, p. 8) states that “who I am determines, to a large extent, what I want to study”. I am a person influenced by my race, class, gender, and sexuality, and this reflects my position as a researcher. The combination of myself as a person and as a researcher allows me to follow topics in which I have experience (Harding, 1989). My prior knowledge, experience, and environment have developed my perspectives and beliefs about research as well as the methodology I choose and the questions I ask (Denzin, 1989).

In order to openly present this bias, reflecting both my personality and positionality, I have chosen to present my approach to this research within this context. I wanted to do this in a way that my bias does not interfere with and corrupt the data I need to collect, aiming to add data to the body of knowledge so that I could do my job better. This is explained by Creswell (2012) as "Qualitative researchers approach their studies with a certain worldview that guides their inquiries".

I was motivated to conduct my PhD research in ecotourism because of the lack of expert staff representatives in tourism and ecotourism, not only within the University of Duhok, but also in the whole Kurdistan region. This was also reflected in a lack of published literature on ecotourism and participatory planning in Kurdistan, and therefore limited evidence on which to rebuild the economy, as discussed later in this chapter. I saw my own development of such expertise as a means of subsequently educating undergraduate students and the region’s human capacity, but also as a pathway to rebuilding the economy and environment in the aftermath of wars in the Kurdistan region. In addition, I grew up and was educated in a situation where decision-making was considered to be the sole job of leading people with power, such as managers, bosses, presidents, etc., with no consultation with people having less political or managerial power. As an example, the Director of Tourism in Duhok province decided, in a non-participatory process, to change and modernise some constructional features of Silav, a recreational resort in Amedi, in the early 2000s. Amedi is near to my home town. This was done against the will of the local people and the local business owners, who largely preferred, according to my knowledge, the traditional/old structure of the resort. During my MSc degree work in the UK, I was exposed to a more participatory culture in the UK , and hence wished to see whether the participatory concept could work in my home region. Therefore, by addressing my field of expertise (ecotourism), I have the potential to address the research objectives outlined in section 1.2 from a broader perspective that takes into account the work on action research. This has been done considering

myself representing a combination of being an insider, as an Iraqi/Kurdish citizen and practitioner, and an outsider, as postgraduate student conducting my PhD overseas (the UK). My insider status, for example, was an advantage when I started my research project, allowing me to easily access the community, knowing the language and how to ask critical questions, through interviews, while remaining sensitive to cultural tradition of the people (Johnson-Bailey, 2000).

1.1.3 Research Expectations

At first, I did not have clear expectations of ecotourism development in the region except hoping that it would form a means of rebuilding the region's economy, whilst protecting its environment and people. However, from my impression about the lack of participatory planning attitude, as explained above, I had the feeling that any ecotourism initiative might experience a deficiency in stakeholder collaboration, creating potential difficulties in the development of the ecotourism industry.

1.2 Aim and Objectives of the Research

Within the context of ecotourism development and post-conflict recovery in the Kurdistan Region of Iraq, this research tries to meet these specific objectives:

1. To examine stakeholders' understanding, views, and experiences of participatory planning and ecotourism in a context of political instability and lack of democratic tradition;
2. To establish the extent and nature of the interaction between stakeholders and the factors underpinning this interaction;
3. To identify the barriers and enablers to the planning and implementation of ecotourism development in the region;
4. To develop a mixed-method, iterative approach to participatory planning for ecotourism development in regions of political instability.

1.3 Justification for Choice of Case Study Area and the Study Objectives

Being a concerned citizen of and practitioner in the Kurdistan region, I was interested in choosing the region to be my case area. Moreover, I was motivated to participate in rebuilding my country which was exhausted because of decades of wars and political conflicts. The infrastructure in the Kurdistan Region was developed following the collapse of previous Iraqi regime (the Ba'th

Regime) in 2003, and especially after the year 2005, when the region was opened to the rest of the world through two international airports, namely Erbil International Airport (EIA) and Sulaimani International Airport (SIA) (KRG, 2013b). In addition, Duhok International Airport (DIA) will be completed in 2016, forming the third international airport in the region. Tourism growth, as well as trade and investment, is one of the objectives of building the DIA (KRG, 2013f). Being more politically stable in comparison to the rest of Iraq, the Kurdistan region is still undergoing political changes with the aim of changing what has been historically the autocratic nature of decision-making. This makes it different from the places where most other participatory planning research has taken place, such as Canada (Simmons, 1994) and Nicaragua (de los Angeles Somarriba-Chang and Gunnarsdotter, 2012), both of which have more stable political backgrounds.

I was generally interested in investigating tourism development in the region, because despite the fact that it is at the earliest stage internationally, tourism development was, prior to the recent political instability referred to in section 1.4, regarded as a priority by the Kurdistan Regional Government [KRG] (KRG, 2013c). This growing interest in the tourism industry by the KRG, served primarily to promote regional stability and safety, with a secondary focus on conservation strategies and a source of foreign exchange (USAID, 2008), also leading to a lot of investment in the ecotourism industry by the KRG. Despite all this interest, it was not quite clear whether the KRG has already identified limitations and promoters to ecotourism development in the region. This study, thus, intends to fill this gap through the third study objective outlined in section 1.2.

The international component of the tourism industry has thrived recently and was developing, in the Kurdistan region, more rapidly than in other parts of Iraq, where lack of security impeded growth. Media coverage, such as local and international TV channels, has facilitated this growth. At a conference in September 2012, the Arab Council of Tourism elected the city of Erbil , in the Kurdistan Region of Iraq, to be the capital of Arab Tourism for the year 2014. Erbil won this title through a competition with three other nominated cities, including Beirut, Taif, and Sharjah (Rudaw, 2012).

According to the General Board of Tourism - KRG, the Kurdistan Region received more than 2.2 million tourists in the region during the year 2012, indicating an increase of 30% compared to the year 2011 (Rwsty, 2013b). The KRG's target is 4 million visitors by 2015, as was stated by Rwsty (ZariKrmanji, 2013). In contrast, in the year 2007, the region only received 377,000 tourists. Figure 1 shows the increase in tourist numbers from 2007 until 2012. The Kurdistan Region of Iraq was categorised by the National Geographic Travel editors to be within the best top 20 places to visit in 2011, considering the region as "an oasis of peace and stability in a historically volatile region".

The traveller editors also added that the region's "ancient cities, snow-capped mountains, and bustling bazaars" are attracting increasing numbers of curious Western tourists to the region (NEO, 2013).

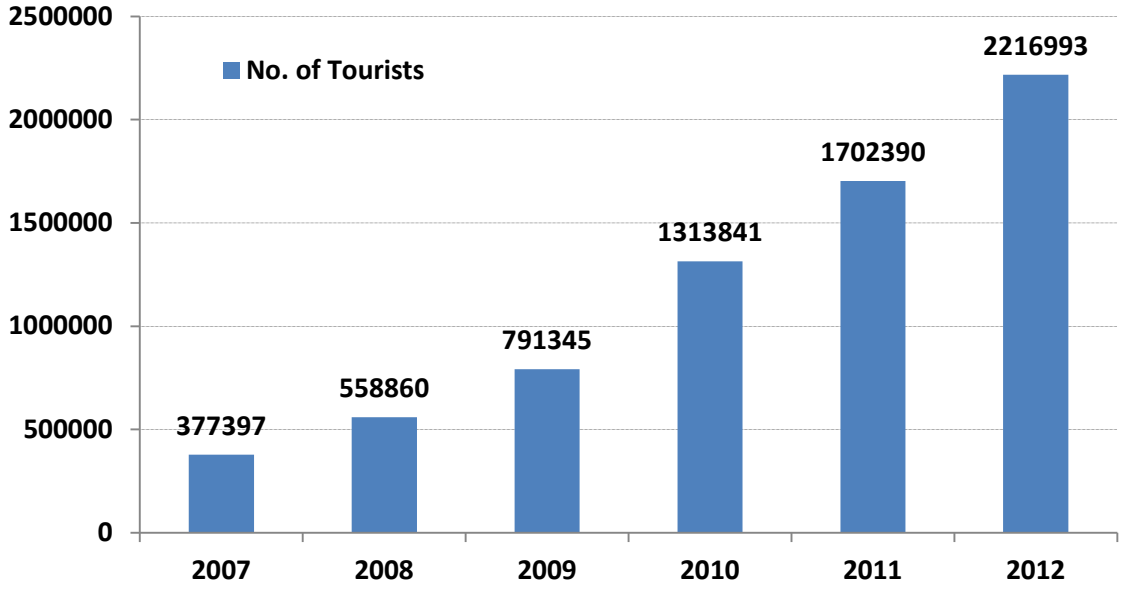


Figure 1: The number of tourists (national and international) in the Kurdistan Region for 2007-2012. Derived from statistics published on the General Board of Tourism website (GBT, 2013a) and the official Kurdistan Regional Government website (KRG, 2013c).

I was particularly tempted to investigate ecotourism development in the region as my study topic. Despite the rapid growth of the tourism industry, little has been written about tourism and probably nothing about ecotourism and its development in the Kurdistan region (McGahey, 2006). Meanwhile, there is published but limited literature on ecotourism in Kurdish regions outside of Iraq, and such work has been published in national rather than international journals, such as the Iranian journals *Physical Geography Research Quarterly* (Farajzadeh and Karimpanah, 2008) and *Geographic Space* (Kermani et al., 2009). Despite this absence of published research, some ecotourism initiatives are being launched in the region, which is indicative of its potential as an ecotourism destination. One such example was recently reported by BBC News Middle East (BBC, 2012), which covered four American environmentalists practising white-water rafting in the Little Zab river. In this report one environmentalist, also a member of Nature Iraq NGO, emphasised Kurdistan's great potential for ecotourism development embodied in its 'untouched wilderness'. Meanwhile, the KRG has recently attempted to implement ecotourism as part of broader tourism planning in the region. Through my personal commitment to ecotourism

development in the region, my study intends to address the absence of research work underpinning such development initiatives, and provides a starting point for further ecotourism research in the region in the future.

Alongside this, it has not been demonstrated that participatory ecotourism planning would work in the settings of Kurdistan, where there is little history of a democratic decision-making environment. Moreover, the extent and nature of relationships between stakeholders was not verified, given the historical bureaucratic structure of governance of the region's affairs. This study therefore constitutes a pioneering investigation as a means to answer questions about participatory planning in a context of post-conflict and political instability, and also as a means to measure the extent of interaction between stakeholders. This justifies the selection of the first and second study objectives (section 1.2). In addition, the rapid political, economic and security developments in the region impose the need for a mixed-method, iterative approach to participatory planning for ecotourism development, such as considering a spatial analysis for ecotourism sites. The latter being a concern that this study intends to consider, through the fourth study objective outlined in section 1.2. The findings here might be applicable for participatory ecotourism development in similar post-conflict situations elsewhere, such as the case in Bosnia and Herzegovina post-civil war (1992-1995) recovery where the deficient administration and governance introduced by peacebuilding initiatives, such as the Dayton Peace Agreement, negatively affected multi-stakeholder participation in sustainable tourism planning (Causevic and Lynch, 2013). The findings might also be of use in conflict-affected settings, such as in Colombia, where political conflict and armed violence have been ongoing since the 1960s. This has prevented providing opportunities for participatory planning (Muggah, 2008).

By means of a workshop, interviews, GIS-Based Multiple Criteria Evaluation, RRA and field observations, in addition to the secondary data obtained, this study assesses tourism and ecotourism issues in the Kurdistan Region.

1.4 The Evolving Political Situation in Iraq and the Kurdistan Region

When I began this research in 2011, the Kurdistan region, compared to the rest of Iraq, was enjoying a period of prosperity and political stability. The region had recently gained considerable autonomy from the central Iraqi government in Baghdad. Funded by revenue from the petroleum industry, construction and economic development activity was taking place throughout the region, offering much optimism about the potential development of a tourism and ecotourism industry. However, after the two periods of fieldwork for my study took place in 2012 and 2013,

and during the final period of fieldwork in 2014, the political and security situation in the Kurdistan region started to deteriorate during the second half of 2014. This occurred due to an internal conflict between the Kurdistan Regional Government (KRG) and a militant group known as the Islamic State in Iraq and Syria (ISIS), escalating from the 2011 civil war in Syria. The situation deteriorated rapidly when ISIS seized territories in Iraq and took control over some towns in western Iraq neighbouring the region, such as Shingar, Tilafar and Tilkef in August 2014. Thereafter, an internal conflict unfolded between ISIS and the *Peshmerga*, the Kurdish region's military, with both economic and human resources being diverted from other sectors to support the defence of the region.

Because of this rapidly deteriorating situation, some of the findings of this thesis may already be out of date, requiring an updated stakeholder consultation and a re-evaluation of ecotourism development. However, all the above conflict and insecurity occurred after the study had been designed and most of the data had been collected during a period of relative peace. Even though this politically unstable region rapidly deteriorated after a relatively peaceful period, the content of this research for the purpose of this thesis can still be read as an investigation of participatory planning for ecotourism in post-conflict areas in peace time. Overall, this research still reflects a broader justification for research on ecotourism development in post-conflict settings.

1.5 Thesis outline

This introductory chapter is followed by a literature review, which gives a general overview of the tourism industry and explains how ecotourism has emerged from tourism during the last three decades. It reviews ecotourism's role in protecting the environment and improving the well-being of local people. The review discusses participatory planning in post-conflict contexts and how that can affect ecotourism development. It also explores approaches used to study ecotourism elsewhere.

A methodology chapter follows, which explores the approaches used in this study to collect primary and secondary data and why these were chosen among other possible approaches. This chapter also assesses the data collection processes and the potential important limitations which could be encountered before discussing the techniques used to analyse the data. The study site chapter then describes the site of this research (the Kurdistan region) and the status of tourism and ecotourism there. It then moves to an assessment of the region's potential for developing

ecotourism in terms of its natural and cultural resources and relative security compared with other parts of Iraq.

The analytical part of the thesis (chapters 5, 6, and 7) applies a series of three participatory approaches to ecotourism planning. The first chapter describes a preliminary ecotourism stakeholder analysis (using a specially designed approach, participatory approach inspired by the Ketso toolkit and engagement method). This chapter aims to expose some of the incentives and barriers for potential ecotourism development in the Kurdistan region, in the context of post-war recovery, through stakeholders' perspectives and their potential interactions. The second analytical chapter describes a questionnaire-based local community consultation and a rapid rural appraisal (RRA) in a village undergoing social and economic changes. The scope of this chapter is to investigate local communities' responses to a proposed conservation programme and ecotourism project by the KRG. Furthermore, this chapter also examines local communities' attitudes and intentions towards pre-defined ecotourism guidelines and principles suggested by ecotourism literature and implemented elsewhere. The final analytical chapter is an implementation of participatory Geographic Information System (GIS) and Multiple Criteria Evaluation (MCE) for the selection of destinations based on their suitability for ecotourism development. Through the consultative nature of this exercise, this chapter also aims to assess the utility of MCE within GIS to achieve consensus in decision-making between different stakeholders, particularly in post-war settings.

To place this study within the broader context of the field of ecotourism research, the 'discussion and conclusion' chapter assesses the overall findings and links them to the existing literature. More importantly, the discussion part makes an assessment of the potential and the challenges facing the Kurdistan region in the further development of the ecotourism industry. This chapter also highlights future research that could be conducted to further the work done herein. The chapter ends by highlighting the main conclusions that can be drawn from the overall thesis.

Chapter 2: Literature Review

2.1 Tourism

The concept of tourism goes back as far as the ancient Greeks and Romans, when rich people used to spend time at thermal baths and travel to different places around Europe and the Mediterranean region. Over the years many different tourism definitions have been introduced and efforts made to agree a universal definition (Weaver and Oppermann, 2000). The term was first mentioned in the Oxford English Dictionary in the year 1811, as 'travel for leisure activities' (Honey, 2008). In 1991 the World Tourism Organisation (WTO) defined tourism as "The activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes" (UNWTO, 1995, p. 1). In the year 2000 Weaver and Oppermann (2000, p. 3) proposed a definition of tourism which was adapted from McIntosh, et al. (1995) with some modifications, which indicated that "tourism is the sum of the phenomena and relationships arising from the interaction among tourists, business suppliers, host governments, host communities, origin governments, universities, community colleges and non-governmental organisations, in the process of attracting, transporting, hosting and managing these tourists and other visitors". It is obvious from the definitions mentioned that tourism is intimately linked with commerce and business, which are the motivators of many kinds of human activities in the world, and it has become an alternative to other forms of economic development for governments to generate regional growth (Wearing and Neil, 1999).

The tourism industry serves vast numbers of travellers, is a major employer, and at the same time generates considerable revenue for national and regional economies. According to the World Tourism Organisation (UNWTO) statistics, international tourist revenues in the year 2011 surpassed 1 trillion US dollars for the first time, growing from 928 billion US dollars one year before, meaning that the receipts increased by 3.8%. International tourist arrivals grew 4.6% during the same period (UNWTO, 2013b). The international tourist industry continues to grow, and at the beginning of year 2012 the arrivals had increased by 5.7% compared to the same period of one year before (UNWTO, 2013a).

With this level of growth, the tourism industry does not always have positive long-term impacts on the surrounding environment. Weaver (2001a) notes that mass tourism, nature-based tourism, adventure tourism, and trekking all have impacts on the environment and host communities. In

particular, mass tourism, if improperly managed, contributes to depletion, fragmentation, and/or degradation of natural resources (Kuvan, 2012). In addition, mass tourism does not necessarily generate socio-economic benefits for local people beyond its lucrative outcomes for large business companies e.g. international hotel chains or tour operators (Bourse, 2012). Therefore, there was a need for an alternative form of tourism that could be more environmentally responsible, namely: 'ecotourism, which could integrate conservation of biodiversity with socio-economic development of local communities (Page et al., 2001; Weaver, 2001b).

In her book, 'Ecotourism and Sustainable Tourism: Who Owns Paradise?' (2008, p. 7 & 33), Honey describes some of the different tourism sectors focused on the natural environment:

- Wildlife tourism: involves travel to observe animals, birds, and fish in their native habitats.
- Adventure tourism: is nature tourism with a kick: it requires physical skill and endurance (rope climbing, deep-sea diving, bicycling, or kayaking) and involves a degree of risk taking, often in poorly charted terrain.
- Nature tourism: involves travel to unspoiled places to experience and enjoy nature.
- Ecotourism: is travel to fragile, pristine, and usually protected areas that strives to be low impact and (often) small scale. It helps educate the traveller; provides funds for conservation; directly benefits the economic development and political empowerment of local communities; and fosters respect for different cultures and human rights.

A concept that is often linked to tourism is sustainability (or sustainable development). The term sustainable development was coined during international conferences in the 1970s [e.g. the Stockholm Conference on Humans and the Environment] and in the 1980s [e.g. the World Commission on Environment and Development and the Brandt Commission Report in Tokyo, Japan] (Hardy and Beeton, 2001a). Sustainability was then promoted in tourism policy documents, strategic plans and the academic literature related to tourism in the early 1990s (Bramwell and Lane, 1993; Müller, 1994). The most generally used definition of sustainable development is the one prepared by the Brundtland Commission in 1987, stating it as "a process to meet the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987, p. 8). Although the word "sustainable" is widely used in the context of practices that seem environmentally responsible, it is still an area of theory in the process of development. It is essentially a relative term, as no human arrangements can be sustained forever (Heinberg, 2010). The principles or objectives of sustainable development, quoting Wight (2002, p. 223), are:

1. maintaining essential ecological processes;
2. preserving biological diversity;
3. sustaining use of species and ecosystems, some of which support important industries;
4. developing diverse opportunities for non-material use (spiritual, recreational, aesthetic) of natural resources;
5. maintaining and improving quality of life; and
6. developing a long-term sustainable economy.

These principles provide guidelines for other components of sustainable development such as sustainable tourism.

Partnerships and collaboration between stakeholders, including public and private sectors as well as the local community, are particularly important in sustainable tourism development. Since different stakeholders have various perspectives and roles in and have conflicting views and interests in tourism planning and development. This makes it difficult to obtain an effective coordination and cooperation between stakeholders (Altinay et al., 2007). So in order to bring the tourism industry towards the concept of sustainable development, the ecotourism concept, a kind of sustainable tourism, emerged as part of the new global environmental movement which encourages positive impacts of tourism on both nature and local communities. The intention is to preserve the environment for future generations (Wearing and Neil, 1999) and to make sure that the resources necessary for the survival of the ecotourism industry are not misused and destroyed (Ioannides, 1995). Ecotourism is a very rapidly growing sector of the tourism industry (Weaver, 2001e). At the same time the practice of ecotourism imposes strict conditions and responsibilities on every stakeholder involved in it (Lu and Bao, 2004), including the ecotourists and host communities, to ensure its sustainability in the long term.

The next section reviews the history and development of the industry and how the term ‘ecotourism’ emerged over time. Alongside discussion of its potential benefits, the section also discusses the problems associated with ecotourism development, if it is mismanaged.

2.2 Ecotourism

2.2.1 History of Ecotourism

The concept of ecotourism has grown over the last 20 years after local people, travel industries, and conservation organisations became aware of the booming potential of nature tourism and the promise of ecotourism to achieve conservation goals, improve the well-being of local people, and produce economic benefits (Drumm and Moore, 2002; Wood, 2002; Honey, 1999). While getting closer to or entering its maturity, ecotourism is still a relatively new concept. Although the linkage between tourism and conservation was first made in 1976, it was in the 1980s when the term 'ecotourism' was first heard (Orams, 1995; Weaver, 2001d; Drumm and Moore, 2002; Weaver and Lawton, 2007). Fennell (1999) suggested that it was only in the 1980s that ecotourism became more common due to the expansion of global tourism and the increasing interest in the natural environment. In other related research, Fennell (1998) found that during the mid-1970s a programme of ecotours was initiated by the Canadian government through Environment Canada. Page and Dowling (2002) also suggest that the phenomenon known as ecotourism was in existence long before the term started being used within tourism research. There seems to be universal acceptance of the fact that ecotourism was in operation long before the 1980s in practice, if not in name (Honey, 1999).

According to Page and Dowling (2002), Hall was one of the earliest writers to use the term 'ecotourism' in a paper published in *the New Scientist* in 1984, and this paper was closely related to natural area-based tourism. However, Weaver (2005) stated that the term ecotourism was first used in English academic literature by Romeril in 1985 and up to that time different phrases or terms were used to describe the activity.

2.2.2 Ecotourism Definition and Principles

A variety of activities can be related to ecotourism. Orams (1995) has referenced some scholars, (e.g. Figgs 1992; Muloin 1992; Ceballos-Lascurain 1987; Valentine 1993) who identified the fundamental principle of ecotourism as the minimisation of negative impacts on the environment through an appropriate management regime. Subsequently, it became recognised by conservationists, economists, and tourists that local people should be involved in ecotourism in their areas, for example by giving them a fair share of ecotourism income. Thus, nature-based tourism is

distinguished from ecotourism, as it may not involve local communities or involve preservation of cultural heritage (Lindberg and Hawkins, 1993).

It has become clear that culture is also considered to be a core component of ecotourism. Culture cannot be separated from nature because of hundreds and in some cases thousands of years of continuous connection between indigenous people and their surrounding natural environment (Weaver and Lawton, 2007). Orams (1995) suggests that the ecotourism field should be more than just an environmentally based activity, but should also use an education-based management approach to help tourists to appreciate their responsibility towards the environment even more. Hence The International Ecotourism Society (TIES) defined ecotourism in 1990 as "responsible travel to natural areas that conserves the environment and improves the well-being of local people" (TIES, 2013b).

In 1999, after ecotourism had developed further, Honey (1999, p. 25) came to propose a more detailed and comprehensive definition for the term ecotourism defining it as “travel to fragile, pristine and usually protected areas that strives to be low impact and (usually) small scale. It helps educate the traveller; provides funds for conservation; directly benefits the economic development and political empowerment of local communities; and fosters respect for different cultures and for human rights”. This definition has become increasingly acceptable academically as well as professionally. By empowerment we mean “a multi-dimensional social process that helps people gain control over their own lives”. Such dimensions, for example, are sociological, psychological, economic, etc. (Page and Czuba, 1999, p. 3). Empowerment helps the local community to “decide what forms of tourism facilities and wildlife conservation programmes they want to be developed in their respective communities, and how the tourism costs and benefits are to be shared among different stakeholders” (Akama, 1996, p. 573). From the above discussion it means that the phenomenon of ecotourism reflects the social, ecological and economic dimensions of a common core idea of sustainable development (Weaver, 2005). Combining all these subjects, the ecotourism field has now become an academic subject studied at schools and universities (Weaver and Lawton, 2007).

Wood (2002, p. 10) described key ecotourism components by suggesting that ecotourism does the following:

- Contributes to conservation of biodiversity
- Sustains the well-being of local people
- Includes interpretation / learning experience

- Involves responsible action on the part of tourists and the tourism industry
- Is delivered primarily to small groups by small-scale businesses
- Requires lowest possible consumption of non-renewable resources
- Stresses local participation, ownership and business opportunities, particularly for rural people.

According to The International Ecotourism Society (TIES, 2013b) ecotourism practitioners should follow some guiding principles:

- Minimize impact
- Build environmental and cultural awareness and respect
- Provide positive experiences for both visitors and hosts
- Provide direct financial benefits for conservation
- Provide financial benefits and empowerment for local people
- Raise sensitivity to host countries' political, environmental, and social climate.

In short, TIES suggest that ecotourism involves fulfilling the objectives of conservation of natural and cultural heritage while boosting the local community's well-being, through education and financial benefits leading to community empowerment.

Despite the fact that most ecotourism definitions refer to sustainability, for example, in the form of conservation of the natural environment and the bringing of various benefits to local people, some activities, called 'ecotourism', are linked to problems that ordinary tourism may bring, such as physical damage to the environment and/or cultural insensitivity. This happens if ecotourism is misrepresented, intentionally or unintentionally, by different stakeholders, including government authorities, tour operators, local communities, and/or visitors.

Different ecotourism definitions by different authors with only little consensus among them create confusion regarding its meaning (Honey, 1999). Therefore, the managers and planners of ecotourism, who need operational guidance, face difficulties in dealing with it (Fennell, 2007; Fennell and Dowling, 2003). Therefore, to distinguish ecotourism from other tourism types, some interrelated components/characteristics should be present, according to Newsome et al. (2002). For example, the practice should be ecologically sustainable, locally beneficial, environmentally educative, nature based, and visitor satisfactory. Donohoe and Nedham (2006, p. 192) have concluded a set of six key ecotourism distinct criteria that they considered the core of the growing contemporary ecotourism definition, which are "nature-based, preservation/conservation,

education, sustainability, distribution of benefits, and ethics/responsibility/awareness". The same principles have been identified in other studies such as Wallace and Pierce (1996). Hence to avoid any confusion, this research considers that any genuine ecotourism activity should manifest the same sustainability principles mentioned by Donohoe and Nedham (2006) in both theory and practice, regardless of which definition it follows.

While this research also studies the local community as an important stakeholder, it will therefore consider one more element which is namely 'well-being of local people', which is directly referred to in the definition by TIES (2013b), "Responsible travel to natural areas that conserves the environment and improves the well-being of local people", alongside the other two elements of natural areas and environmental conservation that are highlighted by Donohoe and Nedham (2006). For a detailed description of each of the six principles mentioned above refer to Appendix 9, which provides extracts from Stacey and Neddham (1993) as cited by Donohoe and Needham (2006).

Being an industry, ecotourism has gone through stages of development and growth which are discussed in the next few paragraphs.

2.2.3 Ecotourism Development and Growth

Ecotourism activities generate significant economic impacts on a global, national and local scale. Of all tourism, the proportion classed as ecotourism has increased from 1.5-2.5 % in the late 1980s to 20-40 % in 1998, in terms of international expenditure (Page and Dowling, 2002). In 2004, ecotourism was growing globally three times faster than the tourism industry as a whole (Smith et al., 2010). In 1999, Honey noted that many countries in the world were recently enlisted into the ecotourism movement, including some countries which were not active in promoting ecotourism before the late 1990s, for example Bhutan, China, Vietnam, South Africa, and Cuba. Ever since, more areas, regions and countries are getting into the ecotourism business. An example would be the case study of this research, the Kurdistan Region of Iraq, which has very recently started to develop ecotourism as stated in section 4.3 in more detail.

Since ecotourism was first introduced as part of the tourism industry, ecotourism organisations and centres have been established, such as The International Ecotourism Society (TIES), which is located in the United States of America and was established in the year 1990, and the Ecotourism Association of Australia, established in the year 1991. There are also ecotourism research centres, such as the International Centre for Ecotourism Research (Griffith-University, 2011). Additionally,

there are international councils that have an ecotourism remit, for example the World Travel and Tourism Council founded in 1990 in London (WTTC, 2011). Alongside this, supporting activities, such as conferences and workshops, have been held in different parts of the world. For example, the Ecotourism and Sustainable Tourism Conference has been held in a different country each year since 2007. This conference provides practical solutions to advance sustainability goals for the tourism industry and aims to promote ecotourism in order to eradicate poverty and protect the environment by recognising ecotourism's positive impact on sustainable community development efforts (ESTC, 2013). The involvement of organisations such as TIES, in the post-conflict Kurdistan region might help promote the practice and principles of ecotourism via guidelines and standards, training, technical assistance, research and publications (TIES, 2013a). The next few paragraphs highlight some of the problems associated with tourism activities that might be called ecotourism.

2.2.4 Problems Associated with Ecotourism

Ecotourism is related to nature and outdoor tourism, both of which have a strong commitment to nature and indigenous rural culture. While ecotourism is intended to be beneficial for the places where it is practiced, e.g. by providing financial benefits for conservation of the natural environment and wildlife and at the same time empowering local people and improving their standard of living (Honey, 2008; Scheyvens, 1999), it might also have the potential to threaten and destroy the resources on which it depends. In other words, ecotourism might, if improperly managed, have a varied range of both social and environmental impacts which are inter-related and complex (Wearing and Neil, 1999; Honey, 2008). Unsustainable visitor numbers disrupt fragile areas, for example, disturbing birds, whales and dolphins by getting close to their habitat when viewing them, and tourist boats may also dump refuse into water or inadvertently pollute the water in which they work (Orams, 1995). Whilst research has shown that ecotourism can produce positive social impacts on surrounding local communities near ecotourism destinations (Wearing and Wearing, 1999), there remain some negative socio-cultural impacts associated with ecotourism activities. For example, depending on culture, ecotourism may commercialise a culture and erode reciprocity and other traditional relationships (Stronza and Gordillo, 2008). Despite the rise of international tourism, there remains a lack of reliable statistics, and this inhibits the assessment of the economic and environmental impacts of ecotourism (Lindberg et al., 1998).

Consequently community-based ecotourism was developed to lessen these impacts and to benefit ecosystems and local residents through community empowerment (Scheyvens, 1999; Lindberg et al.,

1998; Weaver and Lawton, 2007). However, ecotourism, including community-based ecotourism, requires specialist knowledge, as typically it is introduced to inexperienced cultures where it may raise location-specific difficulties. So unless it successfully contributes to sustainable development, by being economically viable, environmentally appropriate and socio-culturally acceptable, ecotourism may default to mass tourism (Wall, 1997). Some of the important issues when developing ecotourism are thus the problems of ensuring stakeholder participation, coordination of development and also understanding the specific needs of local people (Erol et al., 2011).

Another common problem in newly developed ecotourism areas is the unequal distribution of the benefits of ecotourism between local communities and other external stakeholders, and also among the local residents themselves (He et al., 2008).

Further negative impacts of ecotourism, if managed inadequately, can be summarised as follows:

- Tourists put extra pressure on the local environment, and critical thresholds may be exceeded, e.g. for trampling of vegetation, wildlife disturbance and other impacts.
- Visitors may compete for infrastructure, accommodation, services and facilities with the local population and in this case local communities may be unable to meet the infrastructure demands of ecotourism.
- Local culture and language will gradually be affected and may eventually be eroded.
- There may be an unfair distribution of employment between local people and non-locals, e.g. non-locals may occupy better paid jobs.
- Unequal competition for ecotourism business may occur between local people on one side and urban entrepreneurs and large corporations on the other side in terms of providing goods and services required by tourists. This may occur because high skills and experience are required in this field, which local communities may lack. This happens more in developing countries.
- Ecotourism is a source of conflict over control of land, resources, and tourism profit distribution.

Despite the above points, ecotourism, if properly managed and practised, can be an incentive for conservation and a good economic resource for local communities.

2.2.5 Ecotourism and Conservation

It has been assumed that various kinds of tourism, such as nature-based tourism, adventure tourism, alternative tourism, and ecotourism can be sustainable when satisfying conservation and development objectives as well as resolving economic and social problems in local communities (Lindberg et al., 1998; Honey, 2009; Page and Dowling, 2002; Lindberg et al., 1996). The main elements that will achieve these objectives come from the cooperation and support from local communities and their participation in conservation and these kinds of tourism activities, especially ecotourism (Lindberg et al., 1998; Stronza and Gordillo, 2008; Hipwell, 2007; Mehta and Heinen, 2001), and their active participation in decision-making (Li, 2006). In other words, unless local communities experience the economic and/or social benefits provided from ecotourism and any kind of conservation programme, their support for the programme cannot be easily gained (Scanlon and Kull, 2009). Until the late 1970s, the protected area movement adopted "fortress conservation" (Siurua, 2006a, p. 73) or "fence and fines" forms of conservation (Heinen, 2010, p. 140), to protect natural areas. This approach, however, was not sustainable in the long term, in large part due to the fact that this system typically ignored rural people's needs for natural resources.

As a consequence, conservation of natural resources has shifted away from law enforcement strategies to concentrate more on multi-stakeholder and local community participation in their management (Venter and Breen, 1998; Hoole and Berkes, 2010). However, due to the complex and heterogeneous characteristics of community and the variable concerns that each different section has regarding conservation and development issues, some studies still criticise local community participation in supporting conservation, particularly in community-based ecotourism projects. The lack of local participation has been attributed to governmental political structures and traditions and the significant role it plays in de facto reserve management (Lindberg et al., 1998). Therefore, the relationship between community-based ecotourism and conservation is not straightforward and the link remains questionable. Nonetheless, the economic benefits gained from converting biodiversity hotspot areas to ecotourism destinations to benefit both conservation and nearby local community development, provide a counter to some of the critiques (Lai and Nepal, 2006). A good example in this matter is the funds that come from the ecotourism activities along the Belize River in Belize. Along this river, a Community Baboon Sanctuary (CBS) was created by local communities in 1985 to conserve one of the last healthy populations of the endangered Black Howler Monkey [*Alouatta pigra*] (Horwich and Lyon, 1993). The goal of the CBS was to protect these monkeys voluntarily. Local communities pledged to preserve a 20 m strip of riparian habitat, as food for monkeys, and preserve more trees on their private agricultural lands, creating aerial corridors for the monkeys to move from one property to another. The economic benefits from ecotourism activities alongside the river

provided alternative livelihood opportunities for rural communities who participated in supporting conservation.

2.3 Participatory Planning

Participation is defined by Gardiner (1995, p. 97), cited by Tippett et al. (2007) as, "a process in which stakeholders influence policy formulation, alternative designs, investment choices and management decisions affecting their communities, and establish the necessary sense of ownership". In the late 1960s and early 1970s, the concept of participatory planning emerged to address the gap between the desires of local communities and government programmes, such as anti-poverty (Arnstein, 1969). Through her work, *A Ladder of Citizen Participation*, Arnstein developed a typology of citizen participation. In order to encourage a more informed dialogue, she used eight 'rungs' ranging from various degrees of nonparticipation, degrees of tokenism, and degrees of citizen power.

Projects carried out with participatory planning constitute new forms of governance through collaborative processes (Healey, 1999). Participatory planning also increases satisfaction and builds consensus through collaborative dialogue between stakeholders, as was demonstrated by Balducci (1999) in urban planning in Italy.

The following sections present a critical review of the literature on participatory planning in ecotourism development in general and participatory planning in post-conflict and politically unstable contexts.

2.3.1 Participatory Planning for Ecotourism Development

Benefit sharing with local communities is a key component of ecotourism development (Scheyvens, 1999; Ioannides, 1995). However, local communities are not always considered for benefit sharing, particularly in developing countries. A study of the Wolong Nature Reserve for Giant Pandas in China, for example, found that of four stakeholder groups interviewed, the local community bore the greatest costs of ecotourism, but received the fewest benefits (He et al., 2008). Successful sustainable tourism planning and development requires the effective participation of multiple stakeholders, including local communities. Hall (2008, p. 67) states that, "a sustainable tourism industry requires a commitment by all parties involved in the planning process to sustainable

development principles. Only through such widespread commitment can the long-term integration of social, environmental and economic goals be attained". However, realising this paradigm is not straightforward, particularly in developing countries. For example, a lack of communication and co-ordination between stakeholders, for various reasons, is also often cited as an obstacle to conservation and ecotourism development (Lipscombe and Thwaites, 2003).

Research on participatory planning in tourism development is common in developed and developing contexts (Ceballos-Lascurain et al., 1993). In developed countries such as Canada, Simmons (1994) addresses community models of tourism development by evaluating public participation exercises, via different participatory methods including stakeholder interviews, postal survey and focus groups. The author suggests that residents' environmental knowledge is a good basis of their level of political power in tourism management. However, in developing countries, decisions regarding the development of the tourism industry are known to be manipulated and controlled by political elites and centralist bureaucrats without much consideration for multi-stakeholder participation, particularly participation of local communities (Liu and Wall, 2006).

Moreover, in most developing countries, according to Tosun (2000), there are three types of barriers, including operational, structural, and cultural, to community participation in tourism development planning. He describes barriers at the operational level to be the following: centralisation of public administration of tourism; lack of co-ordination between stakeholders; and lack of data availability. Tosun describes the structural barriers to community participation as: attitudes of government officials; lack of expertise; local elites dominating processes; lack of appropriate legal system; lack of trained personnel; and the comparatively high costs of community consultation in a context where finances are often limited. The author also refers to the limited capacity of poor people and lack of interest, and low level of awareness in the local community to be the cultural barriers. In these situations, tourism development is even undermined as an important economic resource. These kinds of narrow interest-dominated and short-sighted policies result in environmental degradation due to the rapid development of mass tourism (Tosun and Jenkins, 1998).

The following sub-sections identify two participatory planning phases, including strategic participatory planning to identify ecotourism sites for development within a specific region, and participatory planning for ecotourism development at a specific site.

I. Regional Participatory Planning for Strategic Ecotourism Development

In recent years, community participation in social and environmental planning has been recognised as important for sustainability on a regional level (Sofield, 2003). This involves studies considering participatory planning for ecotourism planning, such as selecting and classifying suitable sites for ecotourism development.

Within spatial planning, use of Geographical Information Systems (GIS) as a participatory tool (Voss et al., 2004) is one technique which may increase the uptake and legitimacy of indigenous people's spatial knowledge (Dunn, 2007). GIS is often used to identify suitable areas in a region, for purposes such as afforestation, residential development, hazardous waste processing, or as here, ecotourism development. Most often in each case, allocation decisions can be made on the basis of a variety of criteria. For example, the choice between a set of waste disposal sites might be based upon criteria such as proximity to access roads, distance from residential and protected lands, current land use, etc. (Higgs, 2006).

Multiple Criteria Evaluation (MCE) within a GIS framework has been proposed as a participatory planning tool (Higgs, 2006; Bello-Pineda et al., 2006; Zhao and Lin, 2002; Jakariya and Bhattacharya, 2007; Kumari et al., 2010; Bukenya, 2012). However, in practice, few studies consulted with stakeholders over tourism development. For example, Fung and Wong (2007) use their own knowledge rather than consulting others in applying MCE to ecotourism development in Hong Kong. Where consultation has taken place, the nature of this consultation is often unclear. While some studies (Aminu et al., 2014; Bunruamkaew and Murayam, 2011; Kumari et al., 2010) have used MCE and GIS to identify suitable areas for ecotourism purposes, no study was found that used stakeholders' opinions to identify potential ecotourism sites before conducting MCE. Although iterative consultation with stakeholders is considered important for obtaining feedback at all stages of the planning process (Pettit and Pullar, 1999), it seldom takes place in published studies using MCE.

A key issue in MCE is whether those consulted provide rational and logically coherent input when assessing suitability criteria. The most widely used approach for evaluating the consistency of responses is the Analytical Hierarchy Process (AHP), in which experts or stakeholders are asked to evaluate the relative importance of criteria on a pairwise basis (Saaty, 1990; Chandio et al., 2013). Where more than two criteria are involved, a consistency ratio can be calculated from these pairwise ratings to measure how far when taken collectively, the many pairwise statements are consistent with one another. Bunruamkaew and Murayam (2011), for instance, adopted GIS and the AHP to

identify and prioritise potential ecotourism sites in Surat Thani Province in Thailand by using expert opinion to select and weight suitability criteria. However, the AHP has been criticised because its pairwise ranking approach reduces transparency when those consulted are allocating weights (Hajkowicz et al., 2000).

Collaboration and interaction between multiple stakeholders have become important in decision making for sustainable development and tourism planning (Hasse and Milne, 2005; Jankowski, 2009) because individual groups or organisations can seldom resolve strategic tourism issues (Getz and Jamal, 1994). GIS tools, through MCE, can be used to interactively rank different options based on votes by different stakeholders, displaying areas of conflict and consensus to develop a final plan (Andrienko et al., 2003; Jankowski et al., 2008; Boroushaki and Malczewski, 2010). The ability to build consensus between the stakeholders is important in order to obtain the best decision alternative for sustainable development through spatial planning (Bender and Simonovic, 1997; Higgs, 2006). Despite the potential of such participatory decision-making approaches, no ecotourism-based studies were identified which used votes by disparate stakeholders to develop a consensus plan within a GIS-MCE framework.

In some spatial MCE studies, the assessment of suitability is dependent on the choice of threshold values in which sites become suitable or unsuitable (Eastman, 1999) and these vary according to the criteria and nature of the study (Carver, 1991; Carter, 1991).

It is quite common for studies using MCE for tourism development to calculate distance or proximity to the nearest features such as roads, cultural sites and natural areas or attractions (Fung and Wong, 2007). However, calculating distance to the nearest of several features will not identify places where many cultural and natural tourism attractions are clustered closely together. An alternative approach is the 'Gravity Model', which is used to measure the relative attractiveness (e.g. movement of people, information and commodities) between two or more different areas, in trade and tourism (Matyas, 1997; Khadaroo and Seetanah, 2008; Wei, 2007). In a gravity model, a destination's 'pull' at a given location depends on the inverse of distance squared and on its attractiveness and the 'pull' of multiple destinations can be summed (Eja and Effiom, 2014). In tourism, the approach has been used to, for example, determine tourists' inflows to different sites depending on the elements of mass/characteristics of sites and distance between them (Yang et al., 2010). However, this approach has not been used in MCE within a GIS framework in ecotourism studies by calculating, for instance, the distances from an ecotourism site to more than one feature.

II. Project-level Participatory Planning for Ecotourism Development

Whilst many studies have evaluated community participation in ecotourism projects during or after the project implementation phase, some have sought to identify those communities likely to be receptive to ecotourism prior to project implementation.

By assessing ecotourism from a multi-stakeholder perspective in Xingkai Lake National Nature Reserve, China, via conducting key informant interviews with ecotourism stakeholders and field observations, Su et al. (2014) realised that structural difficulties for ecotourism management and operation were caused by inappropriate stakeholder management structure. This was characterised by the lack of relationships between stakeholders and the ambiguity of land ownership and power distribution issues. It is the lack of mechanisms for participation in ecotourism which fall short in providing a positive synergistic relationship between tourism, environment and community. In that sense, Foucat (2002) suggests that local community awareness of the significance of conservation, in Ventanilla, Oaxaca, Mexico, is improved by residents' participation in ecotourism, which enhances their understanding and appreciation of the value and importance of their culture and resources.

In addition, participatory research has been carried out using the theory of reasoned action research to understand community participatory behaviour through examining participants' intentions towards different dimensions of tourism. Previous studies in developing countries found that there is a high correlation between people's attitude and behavioural intention toward ecotourism development, and these are related to education, stewardship and costs and benefits perceived by local people (Stronza and Gordillo, 2008; Xu et al., 2009; Lai and Nepal, 2006).

One such approach to engaging with local communities prior to ecotourism development has been developed in Tawushan Nature Reserve, Taiwan, by Lai and Nepal (2006). Citing work by others (Wallace, 1996; Wight, 1994; Cooke, 1982; Sproule et al., 1998; Honey, 1999), Lai and Nepal's approach identifies four key dimensions of ecotourism; namely, conservation of natural resources, preservation of cultural tradition, sustainable community development, and participation in ecotourism planning and management (Figure 2). Their approach then relates these ecotourism dimensions to the local community's attitudes and intentions, with the latter referring to local residents' readiness to engage and act on an individual basis. Ajzen and Fishbein (1980), as cited by Lai and Nepal (2006), explain attitude and intention in more detail. They explain attitude as an individual's favourable or unfavourable feelings or tendency toward an entity, action or situation. They define intention as being people's willingness to voluntarily perform certain actions reflecting their interests. Lai and Nepal implemented their methodology through a questionnaire survey to

evaluate residents' attitudes and intentions towards ecotourism development. They found that community attitude towards conservation and protected areas is associated with socio-demographic variables, education levels, benefit sharing and participation in management and development.

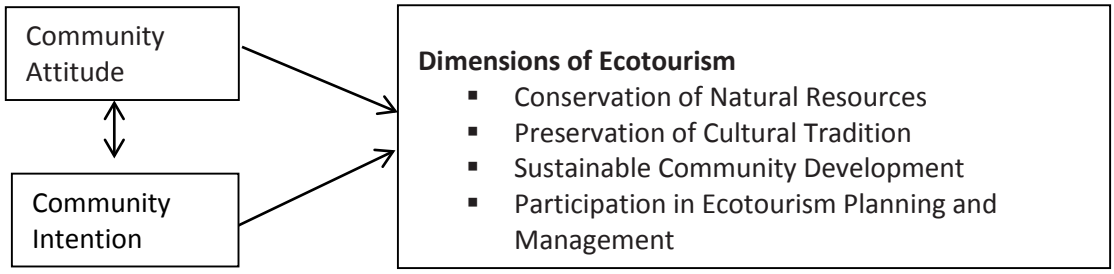


Figure 2: Conceptual framework for ecotourism community participation (adapted from Lai and Nepal (2006, p. 1119)

Different methodologies have been successfully used in different sites for evaluation of people's attitudes and intentions towards conservation and ecotourism. For example, in parts of India and Nepal, Agarwal (2009) used semi-structured interviews and focused group discussions with local people to studying the impact of gender on forest conservation. Agarwal suggested that female elders, particularly those who had better knowledge of plant species and the use of forest products, and who co-operated more with one other, had more positive attitudes towards ecotourism than the males.

Through focus-group discussions, open-ended informal interviews with local communities and direct observation in a national park in Costa Rica, and by conducting stakeholder interviews in a nature reserve in China, Stem et al. (2003) and He et al. (2008), realised that people's conservation behaviours and perspectives were positively associated with their education levels and the economic benefits gained from tourism. Local people's participation in conservation and planning activities, through household questionnaire surveys, informal interviews and dialogue with conservation authorities, was reported to positively affect local people's attitudes towards conservation, as was the case in Nepal (Mehta and Heinen, 2001). Furthermore, communities are likely to express favourable attitudes towards conservation in protected areas where there is appropriate land tenure, local experience with conservation (Lee et al., 2009) and community-based conservation activities (Infield and Namara, 2001).

Factors affecting residents' intention to participate in ecotourism development and management were examined by Zhang and Lei (2012). Using a questionnaire survey with local people in western coastline of Taiwan, these researchers studied the relationship between local people's environmental knowledge, attitudes toward ecotourism and their participation intentions. They suggest that improving local residents' environmental knowledge, through appropriate educational strategies, positively affects their attitudes towards ecotourism. These positive attitudes, in turn, may lead to the creation of positive intentions to actively participate in ecotourism, intentions which can be augmented, for example, if the local landscape is considered aesthetically appealing.

From the above discussion, it emerges that the utility of Lai and Nepal's approach has not been extensively assessed with other participatory approaches such as RRA. It can be difficult, therefore, to capture differences between people's attitudes and intention behaviours from questionnaires or interviews. Moreover, there is no information on how this theory of reasoned action, attitude and intention, might be applied to determine people's participation in ecotourism development within a setting of political conflict - a gap that this research is intended to cover. Therefore, the conceptual framework employed by Lai and Nepal (2006) has been adopted here.

In short, the key issues emerging from these studies indicate the need to facilitate interaction and dialogue between ecotourism stakeholders.

In addition, there is a need for ongoing rather than single-event consultation with multiple stakeholders. This, in turn, could improve stakeholders' participation in decision-making, particularly in developing countries, where the decision-making is mostly manipulated and controlled by political elites through bureaucratic policy. MCE via GIS, as mentioned above, is a participatory tool in which different stakeholders can choose the best decision alternative for sustainable development through spatial analysis, which can lead to greater consensus in decision-making. Similarly, studying local people's attitudes and intentions helps determine their environmental knowledge, which is an indicator for the level of their participation in conservation and ecotourism development.

2.3.2 Participatory Planning in Post-Conflict and Politically Unstable Settings

Different studies have been carried out in post-conflict, as well as conflict-affected settings, addressing the impact of restoration programmes adopted to reconstruct these areas. While some of these settings ignored the participation of important stakeholders in the reconstruction process, others employed participatory planning, either successfully or unsuccessfully.

Patrick (2001), for example, examined the challenges of rehabilitation effort in post-conflict (1975-1999) East Timor, with a particular focus on capacity-building of East Timorese NGOs as part of a broader effort to strengthen civil society. Patrick found that the recovery (rehabilitation) programmes had fallen short because such programmes opted not to adopt participatory planning, thus failing to sufficiently incorporate local NGOs and community groups into the recovery process, and, in turn, failing to contribute to the development of a vital civil society.

Successful participatory projects have been applied in some other post-conflict areas. In post-civil war (1975-2002) Angola, for example, a participatory project called KixiCrédito was developed by Development Workshop NGO, to meet the housing needs of the poor who were displaced due to decades of civil war. This project was carried out by different government and private organisations, piloting a microfinance housing model called KixiCasa. As part of this project, upgradeable houses were designed, for which micro-loans could be attained for finance. This helped people to successfully secure economic independence post-conflict. In general, this participatory planning project helped to challenge the increase of social and economic exclusion that was inhibiting people's participation in the post-war recovery (Cain, 2007).

In Mozambique, Bornstein (2000) examines the introduction of some decentralisation and participatory planning initiatives introduced by the Institute of Rural Development, a ministry-level national agency, with support from the World Bank, in the Gorongosa and Cheringoma regions. In particular, the author looked at how different actors understood the micro-politics of participatory planning implementation, and how the lead planners resolved competing approaches. These programmes were initiated after the 1977-1992 civil war ended, with the aim of enhancing local participation in the formulation of community projects. According to Bornstein, district development planning was integrative, capacity building, devolutionary, standardised, rational, accountable and, most importantly, participatory, relying on local input.

There have also been attempts to introduce participatory planning in post-conflict settings, though some of these attempts have been seen as unsuccessful. An example of such attempts is the Community-Driven Development (CDD) programme supported by the World Bank in conflict-affected and post-conflict communities in the Philippines, Indonesia, Thailand and East Timor (Barron, 2010). The World Bank adopted this programme across a range of low to middle income conflict-affected communities. Communities are encouraged to participate in decision-making regarding approaches including water supply and sanitation, school and health post construction, nutrition programmes for mothers and infants, rural access roads, and support for micro-enterprises (World-Bank, 2015). Barron (2010) argued that the CDD had not contributed to improving

relationships between different ethnic groups. There is no evidence, according to the author, that such a programme has improved the capacities of communities to resolve internal conflict. This is attributed to social tensions in communities caused by people at higher political levels, through personal decision-making for example, outside those communities.

Different studies have revealed other barriers to participatory planning in post-conflict situations. Liu et al. (2014), for example, suggests that participatory planning and stakeholder relationships are affected by social capital, which in turn is directly impacted by economic benefits. Social capital refers to the interaction of people with each other in a specific group (Brunie, 2009) which influences the efficiency of society through parameters such as trust and norms (Putnam et al., 1993). Villagisation and forced displacement of people, as refugees, in post-conflict settings, such as the case in Mozambique (Baden, 1997), resulted in changing and breaking down of social structure. This, in turn, contributes to loss of social capital and limits community and other stakeholders' participation in the post-conflict recovery process.

In post-war settings environmental concerns tend to be a low priority, as the planning community is faced with the challenge of prioritising accommodation for the population and encouraging economic growth (Healey, 1997).

On the other hand, there is less literature on barriers to participatory planning in tourism and ecotourism development in countries in the midst of, or emerging from, periods of political conflict. Yasarata et al. (2010), for example, refer to three limitations to participatory planning tourism development in the aftermath of political conflict effects in North Cyprus. These limitations are: policy development, which results from political influence; use of public resources solely for political interest and power; lack of democratic tradition; lack of environmental knowledge/capacity in government officials, as top authority positions are nominated according to political loyalty; and politicisation of the public sector. In line with this argument, Farmaki et al. (2015) suggest that complex political contexts, in the form of political power struggles, prevent participation in sustainable tourism development in Cyprus, leading to weakening the implementation of this industry.

Issa and Altinay (2006) refer to a lack of security as a barrier to participatory planning, in the case of the post-civil war situation in Lebanon. In such case, the security of the country may deteriorate with each political disagreement, causing limited stakeholder participation in the country's recovery. These authors also highlight the lack of available data necessary for planning, considering the effect of years of political conflict on the collation of adequate research and surveys. Likewise, peace

treaties in some post-conflict settings may negatively affect participatory planning, such as the Dayton Peace Agreement in post-civil war (1992-1995) Bosnia and Herzegovina. The deficient administration and governance introduced by this peace treaty did not provide much opportunity for multi-stakeholder participation in sustainable tourism planning (Causevic and Lynch, 2013).

The following section explores some case studies where tourism planning took place in post-conflict periods.

2.4 Tourism Planning in Post-conflict Areas – Case Studies

The political system in both Iraq and the Kurdistan region has had little tradition of actual participatory democracy, and most of the country's affairs are centralised. This is the case in the management of tourism and ecotourism development. In such situations, most decisions are made by government in a non-collaborative way, and some of the stakeholders are excluded. This type of planning, however, generates negative impacts on the development of a given sector. In tourism, for instance, efforts are focused on developing resort complexes, such as highly developed oases in deserts, with little benefit to local communities, as was the case in tourism development in Jamaica (Altinay et al., 2007).

In the post-civil war period (1993–2005) in Burundi, Novellie et al. (2012), suggest that sustainable tourism development faced the challenge of a volatile political situation, as well as weak institutions and governance in tourism planning, environmental management and human resource development. However, initiatives such as a training strategy, provided by the Ministry for Peace and Reconciliation and targeting the wider rural community, created linkages between the informal sector and the tourism value chain. It was suggested that this, in turn, could lead to "pro-poor" tourism development, increasing cooperation among stakeholders, improving relations amongst former enemies and promoting post-conflict reconciliation through vocational education, business motivation and the achievement of common goals (Novelli et al., 2012).

Economic growth in any country could benefit from the development of tourism, but it requires communities to be involved in collaborative planning and management. This improvement was evident after the 1994-98 civil war and genocide in Rwanda, after which the tourism industry became the county's highest foreign economic source from 2007, by developing ecological and community-based tourism contributing to reconciliation and peace building (Alluri, 2009). For example, Kamuzinzi et al. (2015) suggest that outreach programmes, such as the Tourism Revenue

Sharing (TRS) by the Rwanda Development Board (RDB) helped remitting five per cent of entry fees to Nyungwe National Park and tourism activities in the park every year. Such projects are effective ways to fund various community projects and increase local development around the national park by advocating tourism revenue sharing. Further social-economic development was observed from the contribution of this revenue sharing, facilitating the construction of six health centres and ten schools, granting communities access to safe water supplies and improved housing conditions. In addition, several agricultural projects were supported directly through the revenue sharing scheme, resulting in the creation of employment, promotion of local enterprises and development of a sustainable use of natural resources in the national park.

Successful tourism and ecotourism planning and development was also developed in Lebanon, following the Lebanese civil war (1975-1990), when the tourism industry thrived through building peace treaties, political improvements, long-term strategic plans and reconstruction projects, government support for private development projects and, most importantly, prioritising of tourism development. This is alongside its unique natural and cultural heritage (Ladki and Dah, 1997). In addition, tools for participatory planning and decision-making also helped to develop tourism in Lebanon. For example, in coastal zone resource management, Fedra (2004) used participatory Multi-Criteria Analysis techniques - a combination of information technology, environmental sciences and engineering, and socio-economic analysis - to address the decision-support systems for evaluating the current state of coastal areas and predicting future trends. This project was sponsored by the European Commission under the international scientific cooperation (INCO) framework. The approach was based upon close and direct cooperation with the local and regional stakeholders, who defined the issues, criteria, objectives, constraints and instruments for policy options regarding rapid development and change of the coastal zone. The author argues that with greater coordination from a broad range of stakeholders, resource allocation may become more equitable while resulting in increased economic development, environmental quality, sustainability, and the well-being of coastal resource users.

2.5 Summary

Whilst there are previously published studies of ecotourism in Kurdish regions of neighbouring countries, there is very little published research on ecotourism and even tourism in the autonomous Kurdistan region of Iraq (McGahey, 2006). Also, while local knowledge about the environment and ecotourism is an important factor in successful ecotourism development (Zhang and Lei, 2012;

Johnston, 2000), people in post-conflict countries, including Kurdistan, have paid limited attention to the environment during years of hardship and insecurity, caused by wars and political instability.

In addition, in a part of the world where consensus is rare, political conflicts involving multiple political parties are common, as indicated in the literature cited above. Large differences exist between parties and stakeholders, and little interest or concern is evident for issues such as local community empowerment (Tewdwr-Jones and Allmendinger, 1998). In such regions, decisions regarding any business development are manipulated and controlled by political elites and centralist bureaucrats without much consideration for multi-stakeholder participation, particularly local communities (Yasarata et al., 2010). Therefore, despite the government's efforts to develop the country, the situation is not ideal. In a post-war era, there should be plans for participatory development and seeking of consensus between different stakeholders. Those with less political power, such as local communities, should be educated and empowered (Fung and Wright, 2003; Altinay et al., 2007).

The absence of the above initiatives has a negative impact on tourism and ecotourism development. Unlike politically stable countries, where most participatory planning research has been undertaken, post-conflict and politically unstable countries, such as Kurdistan, have been undergoing political structure that is dominated by an autocratic nature of decision-making. This political structure, coupled with a regional lack of security, has prevented the planning of projects and the carrying out of participatory research. Therefore, the **first objective** of this research is to fill this gap by examining stakeholders' understanding, views, and experiences of participatory planning in a context of political instability and lack of democratic process.

Furthermore, another major conclusion from the literature review is that ecotourism development is difficult, if not impossible, to achieve without a proper interaction between stakeholders. Mistrust in government by other stakeholders, particularly local communities, leads to a diminished implementation of sustainable development. Such mistrust could be rooted in historical events, such as villagisation. Furthermore, the political system in post-conflict countries has a little tradition of actual participatory democracy, and most of these countries' affairs are controlled by political elites and centralist bureaucrats. This is the case in the management of tourism and ecotourism development. However, there is little research available examining the factors underpinning the interaction between stakeholders in ecotourism development, particularly in post-conflict regions with lack of available data, and how the extent and nature of that interaction can be established. This project, therefore, intends to address this through the **second objective** of the study.

Tourism and ecotourism literature explores obstacles and enablers to tourism and ecotourism development. However, as indicated from the literature review carried out herein, there is a dearth of literature on barriers and promoters to participatory planning in ecotourism development in countries emerging from or undergoing periods of political conflict. This study thus seeks to identify both barriers to and promoters of the planning and implementation of ecotourism development in the Kurdistan region. The lack of available research material, as mentioned above, has not helped to identify these; the **third objective** of this research intends to fill this gap.

While many studies have applied MCE within a GIS framework as a participatory planning tool, fewer studies consulted stakeholders over tourism development, and the nature of such consultation is often found to be unclear. Although studies exist that have used MCE and GIS to identify suitable areas for ecotourism purposes, no study was found that used stakeholders' opinions to identify potential ecotourism sites before conducting MCE. Iterative consultation with stakeholders seldom takes place in studies using MCE, despite it being considered important for obtaining feedback at all stages of the planning process. Therefore, the **fourth objective** of this research intends to develop a mixed-method, iterative approach to participatory planning for ecotourism development in regions of political instability.

Chapter 3: Overview of Methodologies for Evaluating Potential Ecotourism Development

3.1 Overall approach and positionality

Because of the region's recent unfortunate history, there is very little research about the region not only in ecotourism, but in related fields such as economics, policy, natural resource management, and development planning. Consequently, in reviewing the literature on the region, particularly concerning tourism and ecotourism, much of the available evidence is found in non-academic sources. This research project, therefore, aims to fill this gap.

Aside from being a researcher, I also consider myself in some senses an ecotourism practitioner, since I am a lecturer teaching ecotourism at a local university, and intend to use the research findings to change the way that ecotourism projects are implemented and thereby the lives of those in local rural communities throughout the region. My PhD could thus be regarded as what Robson (2011, p. 3) refers to as "real world research", regarded as "a way of learning about organisations through trying to change them". Unlike the traditional research purposes of description, understanding and explanation the goal is to influence or change ecotourism development in the Kurdish context of political instability and deliver tangible benefits.

The action research approach has been used in various fields to change people's situations. In education, for example, practitioners act as researchers and are thus able to actively translate educational research findings into their own practice in the classroom (Schmuck, 2006; Somekh, 2005), drawing on initiatives such as the UK's Collaborative Action Research Network. I, too, may have the opportunity to act on the findings of my research as an educator in the field and, perhaps, by influencing the decision-making processes at the General Board of Tourism.

Lewin (1946) and Robson also saw action research as "a tool for bringing about democracy". For example, Bentz and Shapiro (1998) noted that Lewin's initial studies aimed to convince homemakers, through group discussions, to use less meat in wartime (World War II), describing this action as being somehow democratic. In addition, there were action researchers who merged activism and research aiming to empower women and others who focused on social change through action research, such as Reinharz (1992) and Stringer (2007), respectively. The present study can also be seen in this context as actively promoting participation and democratic processes within the region.

Case studies, adopting action research, have flexibility over design and approaches. In this regard Kemmis et al. (1998) suggest that action research can be cyclical via planning a change, implementing it and then observing the outcomes and consequences. This, in turn, triggers planning for further action through a cyclical process (Robson, 2011). Although in the present study, no consideration was made towards a specific ecotourism project, the approach involved iterative consultation and flexibility over the methods used.

While adopting action research, intending to influence, change and deliver tangible benefits to the potential ecotourism industry in the Kurdistan region, this study also aims to describe, understand and explain the concept of ecotourism development through traditional research. This implies that description and understanding might be considered as prerequisites to influence, change and the delivery of benefits.

3.1.1 Social Surveys in Conservation and Ecotourism

For any ecotourism planning process to be successful, one of the critical stages is assessing the actual situation in the area and the status of the people where ecotourism activities are/will be implemented (Weaver, 2001c). This will identify the relevant factors which affect the planning process, including political and administrative situations (Bonilla, 1997). One way of researching ecotourism development is through assessing different stakeholders' (e.g. government bodies, private tourism companies, local people, etc.) perspectives on ecotourism development. This assessment usually involves various approaches, such as running stakeholder workshops, interviews, participatory and rapid rural appraisals, etc. These are mentioned in more detail in section 3.4.

Current approaches to conservation are not only based on natural science research, but they also bring to bear social science perspectives on conservation issues and management of protected natural areas. The new research agenda stimulated managers to design appropriate local development projects in protected areas (Heinen, 2010). This requires the participation of multi-stakeholder and local communities in conservation planning and management (Venter and Breen, 1998; Hoole and Berkes, 2010) away from enforcement strategies such as "fortress conservation" (Siurua, 2006a, p. 73) or "fence and fines" forms of conservation (Heinen, 2010, p. 140). Despite being difficult to organise, the involvement of and investment from different stakeholder groups is essential for sustainable development and successful conservation (Williams et al., 1998; Araujo and Bramwell, 1999; Lu and Bao, 2004).

Since ecotourism is considered an impetus for conserving natural and cultural features where it is practised, then studies on ecotourism development can be approached through social studies, for example, stakeholder analysis, in ways similar to conservation projects.

Creating a strong partnership in ecotourism management is key to the success of both the development of the industry and to meeting the conservation goals. For example, unless ecotourism management and planning fully include local communities' participation, it will not be considered ecotourism, but a sort of unsustainable nature-based tourism instead (Bonilla, 1997; Garrod, 2003a). As viewed by Stronza and Gordillo (2008) a number of researchers have hypothesised that ownership of ecotourism businesses and participation in management play a stronger role in connecting ecotourism and conservation than do the economic benefits of ecotourism alone.

Cooperative tourism planning promotes sustainable development by increasing efficiency, harmony, and equity of the sustainable tourism development (Timothy, 1998). An early stakeholder assessment is considered important for sustainable tourism development (Hardy and Beeton, 2001b; Murphy and Murphy, 2004). According to Currie et al., (2009) multiple stakeholders, including local communities (Ozesmi and Ozesmi, 2003), should be involved in the process of planning and implementing equitable and environmentally sustainable tourism development. Meanwhile, Araujo and Bramwell (1999) suggest that the stakeholders who participate in collaborative tourism planning should adequately represent all stakeholders who are affected by the tourism project. Otherwise, if some stakeholders are excluded from the early stage of the process outcomes will be jeopardised by increasing the potential for conflict and reinforcing inequalities between stakeholders as happened in the Costa Dourada tourism project in Brazil (Araujo and Bramwell, 1999).

3.1.2 Potential Ecotourism Survey in Kurdistan

Concern for environmental conservation and natural resource protection in the world is increasing rapidly. The Kurdistan Region of Iraq is one of the regions trying to preserve the environment and natural and cultural capital through creating nature reserves and national parks. Experience elsewhere suggests the ongoing survival of these nature reserves and the conservation of their natural resources, together with the region's cultural heritage, will only occur if they are managed sustainably. One of the strategies for balancing economic growth and conservation to ensure sustainability, in the Kurdistan region, is the development of ecotourism. A proposed ecotourism development in Kurdistan will be conceived not only as an economic catalyst but also as a way to

strengthen conservation by involving and empowering local people in the management of the reserves.

Although the legal framework and regulations to protect reserves in Kurdistan are being strengthened, evidence from elsewhere suggests the environmental consequences of imposing rules and regulations on local people to protect the environment, i.e., through "fortress conservation" (Siurua, 2006a, p. 73), could still be negative (Heinen, 1996). Tawushan Nature Reserve in Taiwan provides a pertinent example of the impact of such regulation. The reserve continued to suffer from illegal activities such as hunting, fishing, and unauthorised tourist activities, despite the imposition of entrance restrictions to the reserve under a Cultural Heritage Conservation Law. The management authority known as the Forestry Bureau aimed to protect the reserve via these restrictions (Lai and Nepal, 2006).

Because of its abundant forests and rich biodiversity sources, the number of nature reserves in the Kurdistan Region is increasing, but without good relationships between conservation managers and local people. Besides implementing a good practical management strategy to tackle this problem the government should search for better local livelihood opportunities around these nature reserves. Currently, there is little or no ecotourism in the region (NI, 2011a). Hence, promoting ecotourism development projects in the region could help solve this problem by augmenting the local economy and simultaneously supporting nature conservation (Owino et al., 2012).

There are concerns around the difficulty of conserving the planned natural reserves in Kurdistan in the future. One potential solution is the development of practical ecotourism with the cooperation and support of local communities (Mehta and Heinen, 2001). Many authors argue that local empowerment (Scheyvens, 1999; Lindberg et al., 1998; Weaver and Lawton, 2007) and enhanced participation in decision-making form an essential part of conservation management and ecotourism development (Li, 2006). This is in line with one of the ecotourism's goals: achieving conservation and community development through the provision of economic and social benefits to local people who by definition are considered an important stakeholder in ecotourism development.

3.2 Terminology for Thesis

The literature provides various definitions for the term 'stakeholder'. For example, Freeman (1984, 46) cited by Currie et al. 2009), has broadly defined a stakeholder as "any group or individual who can affect or is affected by the achievement of the organisation's objectives". In a more recent

definition, by Bryson and Crosby (1992, p. 65) defined stakeholder as “any person, group, or organisation that is affected by the causes or consequences of an issue”. Later in 1997, Mitchell et al. (1997, p. 854) defined stakeholders as “those entities to whom managers should pay attention” and which have the ability to influence the organisation through at least one of three following attributes:

- Power: ‘‘the extent to which a party has or can gain access to coercive, utilitarian, or normative means, to impose its will in the relationship’’
- Legitimacy: ‘‘a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions’’.
- Urgency: ‘‘the degree to which stakeholder claims call for immediate attention’’

According to Mitchell et al. (1997), the more of the above attributes a stakeholder accumulates, the higher the salience gained by the stakeholder.

Savage et al. (1991) distinguished four types of stakeholders (supportive, marginal, mixed blessing, and non-supportive) depending on two dimensions: their potential to threaten the organisation and their potential for cooperation with the organisation.

For the tourism industry, four different generic groups of stakeholders were classified by Hardy and Betton (2001a) as local people, tour-operators, regulators and tourists. Lu and Bao (2004) focused on local government, tour-operators, local people, and ecotourists. According to Fennel and Dowling (2003), government is considered to be the main stakeholder involved in ecotourism, followed by the private sector, non-governmental organisations (NGOs) or the third sector, multilateral and bilateral donors, tourists and local communities. However, Chaminuka et al. (2011) considered tourists to be the major stakeholders in ecotourism industry, and studying their preferences and attitudes towards ecotourism can help decision makers realise the level of awareness for tourists regarding conservation and development.

In general, stakeholders can be persons, groups, neighbourhoods, organisations, institutions, and societies. Meanwhile, the natural environment might be qualified as a stakeholder. It is, therefore, unclear whom to definitively consider as ecotourism stakeholders. Based on the ideas mentioned above, different groups of people were chosen as ecotourism stakeholders in the Kurdistan region. In particular, the description of stakeholders by Mitchell et al. (1997, p. 854), referred to above, was used to select the potential ecotourism stakeholders as research participants here, given that there is no definitive list of ecotourism stakeholders in the region. All the potential participants in the

present research were screened against eligibility criteria, namely having or acquiring, at least, one of the attributes 'power', 'legitimacy' and/or 'urgency'. The identification of ecotourism stakeholders by the GBT further helped stakeholder selection.

3.3 Relationship between analysis chapters and research objectives

Table 1 shows the relationship between the objectives of this study, described in section 1.2, and the analysis chapters, 5, 6 and 7. Objective 1, for example, has been met through the data collection and analysis in chapters 5 and 6, whereas objective 2 has been addressed through all the analysis chapters.

Table 1. Relationship between study objectives and subsequent chapters

Objectives	Chapter 5: A Preliminary Ecotourism Stakeholder Analysis	Chapter 6: Local Perspectives on Ecotourism Development in Ruste Village	Chapter 7: Participatory Planning of Ecotourism Sites Using GIS-Based Multiple Criteria Evaluation
1. Examining stakeholders' understanding, views and experiences of participatory planning and ecotourism in a context of political instability and lack of democratic tradition	✓	✓	
2. Establishing the extent and nature of interaction between stakeholders and the factors underpinning this interaction	✓	✓	✓
3. Identifying the barriers and enablers to the planning and implementation of ecotourism development in the region	✓	✓	
4. Developing a mixed-method, iterative approach to participatory planning for ecotourism development in regions of political instability	✓		✓

The following sections describe the most relevant methodological approaches to stakeholder consultation in participatory planning, together with the justification of the approaches used for this research.

3.4 Justification of Methodology

This section firstly describes some of the participatory approaches, relevant to this study, which were not employed, and justifies the non-use of these approaches. The following sub-sections then describe the approaches which have been employed in this study, chapter-by-chapter, with the justification of their use for this study.

In recent years different participatory approaches have been used to solve social and environmental problems and enable an effective engagement of participants in developing options for the future, by, for example, incorporating local knowledge into plans and developing new ways of thinking about their local areas (Ritchie et al., 2013). Some of these approaches were considered for use in this study but were, ultimately, not chosen due to different reasons as outlined later in this section. These approaches are more broadly explained by Tippett et al. (2007). They include the following:

1. **Appreciative Enquiry (AE):** AE is a method used to develop better understanding of complex social or environmental systems. It is done by investigating a case study so as to improve the capacity of people within that system to imagine, innovate, expect, and increase positive potentials. Through applying this methodology, hundreds or even thousands of people can participate to determine their future cooperatively (Cooperrider and Whitney, 2005). AE, according to Cooperrider and Whitney (2005, p. 8), is "the cooperative, co-evolutionary search for the best in people, their organisations, and the world around them. It involves systematic discovery of what gives life to an organisation or a community when it is most effective and most capable in economic, ecological, and human terms". In this methodological approach participants are encouraged to creatively focus on the positive aspects of the topic or area under study such as the history of local community. For example, between 1999 and 2001 AE was conducted in two Southern Indian states, Andhra Pradesh and Karnataka, as an approach for helping community groups design and carry out sustainable development projects. Canada's International Institute for Sustainable Development, MYRADA, an NGO, and a network of other NGOs and community groups, implemented village-level projects that emphasised gender equity, diversification of income-generation, and the improvement of local environmental conditions. An estimated 500 community-based organisations (CBOs), including self-help groups, teachers associations, watershed development associations, village forest committees, local farmers' associations, and community health groups representing about 10,000 people, participated in appreciative enquiry workshops. In each workshop, groups of about 25 people answered questions such as 'what are the things that really work the best?' in the form of stories and pictorial representations, which formed the basis for further analysis. These workshops provided

tools to build on people's thinking and emotions that eventually helped to empower them (Ashford and Patkar, 2001).

2. **Citizen's Jury:** A citizen's jury is a participatory approach where the public can be involved in policy making processes by fostering the partnership between ordinary citizens and the policy makers [their elected officials] (Armour, 1995; Abbott, 2013). In this process complex issues are considered by seeking the public's input, via a random sample of the population, with the engagement of 'expert witnesses' in the manner of a judicial model (Tippett et al., 2007, p. 29). For example, public attitudes towards environmental projects in the South of Scotland were assessed by 52 participants, 11 jurors and ten witnesses who took part in a jury over three days. The witnesses made short presentations of 10-15 minutes followed by a discussion session with the jury lasting about 30-40 minutes. In addition, the jurors discussed particular issues during some jury-only sessions. The jury recommended by consensus that the Southern Uplands Initiative, that aims to coordinate environmental activities across the whole of the South of Scotland, should go ahead. They also made recommendations about some individual environmental projects, and how they might be managed and coordinated to achieve environmental and social goals in Southern Scotland (Kenyon et al., 2001).

3. **Community Mapping and Participatory Geographic Information Systems (GIS):** Community mapping is a process in which local community members are approached and helped to create maps of their areas. The process takes place by using many media and taking many forms. By using their memories and knowledge, resident local people give information and draw on maps to distinguish the nature and distinctiveness of their local places (Clifford et al., 1996). Participatory GIS can work as a supplementary process together with community mapping to help the participant to get more detailed technical information (Clark, 1998).

4. **Participatory and Rapid Rural Appraisal (PRA / RRA):** Rapid appraisal refers to "a family of approaches and methods to enable people to share, enhance and analyse their knowledge of life and conditions, to plan and to act" (Chambers, 1994, p. 953). It enables local people to share, enhance and analyse their knowledge and experience of life and situations, to plan and to act. Participatory approaches involve activities of sharing and co-generating knowledge (Carruthers and Chambers, 1981). Key rapid appraisal activities include participatory workshops as ways for sharing practice and collating experiences, and, even further, to create options and put the ideas agreed upon in practice (Chambers, 2012). PRA involves communication and learning techniques

used to assist local community in analysing their conditions and communicating with researchers (outsiders), while RRA includes communication and learning techniques used to gather information by the researchers to understand the local community and analyse their conditions (Chambers, 2014).

Although RRA was used, 'appreciative enquiry', 'citizen's jury', 'community mapping' and 'participatory GIS and PRA' approaches were not used in this study, because of logistical reasons. For example, an appreciative enquiry requires multiple sequential workshops, and a citizen's jury also requires a group of people to gather on multiple occasions. These two approaches might have resulted in more data collection, by involving more participants in the research compared to the methods adopted instead (see the following paragraphs). However, these approaches would have been too difficult to organise here given the time and financial support available. In contrast, the methods adopted in this study included some of relevant stakeholders despite being less interested in participatory planning by gathering in group meetings, such as workshops. For example, some of the stakeholders who did not attend the Ketso-derived participatory workshop, despite being invited, (see section 5.3.1.1) were subsequently and individually interviewed in the following interviews (see section 5.3.2).

In order to analyse the multiple stakeholders' opinions in the present study, several different approaches were followed: i) assessing the stakeholders' views via a local workshop intended to promote collaborative planning; ii) conducting semi-structured questionnaire interviews with government and private stakeholder participants; iii) using an RRA approach with local communities to obtain information on tourism/ecotourism potential and the on-the-ground situation in the study sites; iv) conducting structured questionnaire interviews with local community in a rural setting; and iiv) employing GIS-Based Multiple Criteria Evaluation (MCE) as a participatory planning approach to assess the potential of different sites for ecotourism development (Figure 3). These data collection approaches were chosen for various reasons as outlined in the following sections.

The following sub-sections give a general description about the methodologies adopted for this research, chapter-by-chapter. Furthermore, the justification for the selection of each methodology is also discussed.

3.4.1 Justification of Approach to Initial Stakeholder Consultation

Chapter 5 employed various methodological approaches to collect data for the initial stakeholder consultation. These included a participatory workshop, using stakeholder consultation techniques inspired by Ketso; stakeholder interviews, using semi-structured questionnaires; and Rapid Rural Appraisal (RRA), with local communities. These approaches are further explained in the following paragraphs.

In social science research on ecotourism development, workshops are sometimes held before conducting questionnaire-based interviews with local respondents. These workshops focus on local people's understanding of ecotourism and concepts of community development (Nepal, 2004). They are also used to consult with different stakeholders and discuss options for development of ecotourism and the type of goods or services that can be offered by local members to tourists (Chaminuka et al., 2011). Therefore, these workshops can generate a synthesis of stakeholder attitudes and then propose action plans for ecotourism development in the selected sites (Queensland, 2002).

For the first data collection and analysis element of this research, a variant of a qualitative approach called Ketso (www.ketso.com) was used. In a one-day workshop, held in Kurdistan in 21st of February 2012, participants shared and discussed ideas related to future ecotourism.

Ketso was developed in Lesotho and South Africa in the mid-1990s by Joanne Tippett. It is used as a hands-on toolkit for creative thinking and synthesis of ideas within and across groups (Ketso, 2012a). Initially, it was used to involve people in planning to improve their villages. It helps to engage people in thinking about what really matters to them and to plan for the future, and it encourages people to create solutions from a sense of their identity and values, instead of having change imposed through an external programme (Ketso, 2012b). In 1997, Ketso was further developed in California (USA) where it was used as an aid for teaching undergraduate students as well as in business planning workshops at several universities. Following its use in PhD research in Manchester, UK, in 2007 Ketso evolved into a commercial product, supported by funding from the Economic and Social Research Council (Tippett et al., 2007; Tippett and Griffiths, 2007)

Ketso is a hands-on kit for creative engagement, and it is used as a tool for brainstorming and idea generation in an interactive communication with big groups (a few hundred participants) or for a small group discussion (a few participants). A typical Ketso tool kit comprises a large felt mat with four quadrants, a grid mat, different coloured plastic 'leaves' and icons backed with Velcro, flexible 'branches' for organising leaves, and marking pens with water-soluble ink for writing responses and

ideas on the leaves. The toolkit encourages participants to use these different objects to creatively express their ideas by writing their ideas on the coloured leaves. In addition, after ideas are written on the leaves, the group can discuss the ideas to identify trends, themes, or unique suggestions generated by participants. The leaves can be picked up and moved around the mat to form leaf clusters to assist in organising ideas. The visual and tactile approach of Ketso enables participants to build a shared picture of their thinking, and to see ideas from different perspectives.

Since its launch, Ketso has been used widely as a tool for gathering data in a range of research projects, and in countries such as the UK, Peru, Bangladesh, Ethiopia, Tanzania, Rwanda, South Africa, Jordan, Russia, Australia, the USA, Germany, Finland, the Netherlands and Portugal. In addition, Ketso has been used by a wide range of organisations in environmental management and sustainability planning (Ketso, 2015). For example, in late 2011, Ketso was successfully employed in a small Russian town looking at participatory approaches to poverty reduction. This project investigated the public attitude towards the poor by examining the readiness of local society to be involved in the process of helping the poor (Ivashinenko, 2014). Despite this, the Ketso approach has not been used in any previous ecotourism studies before this research was conducted for this study in February 2012. Due to financial constraints, the participatory workshop here did not use the commercial Ketso kit, but it rather borrowed some key ideas from Ketso and applied them in a novel approach, such as using different coloured cards which the participants used to draw their ideas and displaying them on poster boards, organised as workspaces, which were used for grouping together similar ideas (see section 5.3.1.2 for further discussion).

Another research approach is to interview a sample of stakeholders who are affecting or are affected by the project planning (Araujo and Bramwell, 1999). This approach helps to create strategies and policies to implement successful ecotourism plans through comparing and contrasting the views of different stakeholders (government sectors, private sectors, local communities, NGOs and ecotourism specialists) in ecotourism (Bonilla, 1997). This research used a qualitative approach strategy towards stakeholder analysis. It uses a grounded theory method that does not require the researcher to generate a hypothesis to test before starting the research. Rather it leads the researcher to develop hypotheses based on the outcomes of interviews (Auerbach and Silverstein, 2003). Martin and Turner (1986, p. 141), siting Glaser and Strauss (1967), define the grounded theory as “an inductive, theory discovery methodology that allows the researcher to develop a theoretical account of the general features of a topic while simultaneously grounding the account in empirical observations or data”. Grounded theory has been used in multiple research areas, including psychology, sociology, public health, business and engineering (Wells, 1995). The collected

data are reviewed and the repeated ideas, concepts or elements are tagged with codes which can then be grouped into concepts and then into categories for easy analysis. The generated categories may become the source for new theory (Allan, 2003). According to Auerbach and Silverstein (2003), there are two key principles in the grounded theory method: using questionnaires instead of measuring, and using theoretical coding to generate hypotheses.

To determine the potential of an enterprise development, such as a tourism and/or ecotourism project, social exchange theories are employed by, for example, Li (2006); Adams et al. (2005); Choi and Murray (2010); and Choi (2005). Social exchange theory, generally, refers to the procedure where different stakeholders negotiate over addressing resource distribution within stakeholder groups exchanging ideas, aiming to maximise benefits and minimise costs (Cook et al., 2013; Emerson, 1976). Araujo and Bramwell (1999) state that opinions expressed by the stakeholders can be examined by interviews with their representatives who could be decision -makers (private, public, or academic sectors), ordinary citizens, local community members, etc. This kind of investigation is conducted using face-to-face interviews with people, particularly so-called narrative interviewing, in which the participants are encouraged through questioning to tell the story of their engagement with topics relevant to the project (Auerbach and Silverstein, 2003; Silverman, 2000).

RRA emerged in the 1970s and has been used for conducting action-oriented research in developing countries in all stages of development work (Chambers, 1994). It is a way of learning about rural situations in a cost-effective way in regards to quantity, accuracy, relevance, timeliness and actual use of the information. It has been described as “fairly-quick-and-fairly-clean”. The RRA techniques emphasise gathering information based on local knowledge with a broad focus, rather than falling into the trap of spurious statistical accuracy. These techniques include review of secondary data (such as aerial photos), informal interviews, direct field observations (note taking, transect walks, photographing, participation in activities, and timeline), interviews (group interviews and workshops), mapping (diagramming), biographies (local histories and case studies), ranking, time lines, short questionnaires, and rapid report writing in the field (Chambers, 2014, pp. 199-200). For instance, these techniques are used in agricultural situations in Australia as steps in understanding the complex problems of farmers and their need for better development opportunities (Ison and Ampt, 1992) and in wealth rankings among rural populations in the Peruvian Amazon.

However, within the RRA techniques, there may be some limitations. The practice is extractive and externally-driven by mainly emphasising data collection from local communities rather than capacity building. Also in field observations, for instance, it is difficult to distinguish the objective versus subjective observations of the researcher, and the researcher’s bias can permeate much of the work.

The Ketso-derived approach was selected because it proved to be an effective participatory approach for data collection from stakeholders, as explained further in 5.3.1.2. In addition, it was a good opportunity to test the effectiveness of some stakeholder consultation techniques (an approach inspired by Ketso) in (firstly) ecotourism research and (secondly) in a politically instable area with people who are unfamiliar with such a unique participatory thinking methodology, away from traditional 'round-table' workshops. It cannot be ignored that not being able to use the actual Ketso kit has certain negative implications, such as decreasing the level of interaction between the participants as the boards were hung on the walls, instead of used at the tables as would normally be the case with Ketso, as mentioned in section 8.4.

Questionnaire-based interviews and RRA techniques, employed for chapter 5, are known to be widely used for data collection in social research (Robson, 2011). In addition, the RRA techniques could be usefully applied in areas with a lack of abundant published research and a relative lack of secondary data, such as the Kurdistan region. Moreover, using these two techniques allowed the researcher to almost follow the same protocol as the Ketso-derived approach in, for example, exploring challenges and related solutions to ecotourism development in the region (see section 5.3.2.2).

3.4.2 Justification of Approach to Local Community Consultation

In chapter 6, structured questionnaire interviews were used, with a local community in a rural setting, following Lai and Nepal (2006). In addition, RRA techniques, transect walks, and group meetings were also used within the same setting, as complementary data collection approaches. These are explained in more detail below.

A key focus in ecotourism development research is the social and economic well-being of local communities. The theory of social exchange is used in surveys to investigate a range of variables determining local communities' perception in ecotourism development. Whilst some studies have determined community participation in ecotourism projects during and after the project implementation phase, some other studies have attempted to evaluate community perception in ecotourism projects prior to the project implementation phase.

Studies on the extent of existing and potential ecotourism practices, together with the benefits and problems associated with ecotourism development, have been carried out (Graci, 2009; McDill et al., 1999). An example is a study of the socio-cultural influence of newly established ecotourism in the

Taroko national Park area, home to the San-Chan Tribe in Taiwan by Yi-fong (2010). Yi-fong conducted participatory observations in the field of ecotourism activities, interviews with indigenous people and ran several workshops to gather data for his research. Taroko's natural features and national park became ecotourism destinations because of the cooperation among local residents, environmentalists, and academics, each with very different concepts of ecotourism operation. In the San-Chan community, the local indigenous people promoted ecotourism for poverty alleviation after they had stopped unregulated mass tourism expansion. Ecotourism was shown to have integrated cultural revitalisation, ecological conservation and social development in both case studies.

There are also case studies where researchers investigated local people's attitudes and/or intentions towards proposed ecotourism development in areas where local people live. This will help planners and project managers know how local communities feel about the role of ecotourism in balancing between conservation and development (Lai and Nepal, 2006). In order to assess any ecotourism project's likelihood for success, the perception of the local people and their attitudes toward tourism development impact and the changes it brings to the community should be examined. In some potential ecotourism development cases local residents' attitudes toward the development are tested (Choi and Murray, 2010). Others (e.g. Zhang and Lei, 2011) have explored factors contributing to local people's intent to participate in ecotourism management. Lai and Nepal (2006) examine attitude and intention regarding dimensions of ecotourism development. This approach is discussed in more detail in section II of 2.3.1.

Since this research sought to investigate local communities' perspectives prior to ecotourism development, it applied Lai and Nepal (2006)'s framework and methodology for data collection and analysis, in chapter 6. As a complementary step to Lai and Nepal's applied approach, some RRA techniques, in the form of an informal interview with a member of staff at the General Board of Tourism, transect walks and an informal group meeting, were also used for data collection here (see section 6.3.2). The RRA techniques were used to help recording behaviours which might not be observed by using the questionnaire interviews alone.

3.4.3 Justification of Approach to Ecotourism Site Selection

This section explains and justifies the approach to identifying sites for ecotourism selection in chapter 7. In this chapter, an iterative approach to stakeholder consultation for a participatory GIS-based MCE analysis was adopted using a follow-up stakeholder consultation, which included structured questionnaire-based interviews. Some of the data collected from the initial stakeholder

consultation (section 3.4.1) were also used subsequently in data analysis for this chapter (Figure 3). Both consultations informed an initial and a follow-up GIS-based MCE to identify suitable sites for ecotourism development.

Within GIS, MCE techniques have evolved to take the knowledge of stakeholders, expert decision-makers (Carver, 1991) and the general public (Higgs, 2006) into account when multiple and conflicting criteria and objectives are of concern. With the integration of GIS and MCE, the decision-makers can use a replicable and traceable procedure to reduce the chance of making mistakes in spatial decision-making and the planning process (Lipshitz and Massam, 1998; Carver and Fritz, 1995). In the early 1970s, MCE techniques emerged from a critique of traditional neoclassical economics that called for the incorporation of the environment into economic valuation. MCE was developed to address certain weaknesses in decision-making for site locations, particularly to better handle the negative effects and environmental externalities of economic development, such as pollution and health risks (Voogd, 1983). MCE is a multi-dimensional decision-making and evaluation modelling tool which applies trade-offs when selecting between alternatives, such as potential development sites with different environmental and socio-economic impacts (Carver, 1991). Voogd (1983, p. 21) suggests MCE aims to "investigate a number of choice possibilities in the light of multiple criteria and conflicting objectives". So in MCE, the alternatives are ranked according to their attractiveness or suitability for a given objective or purpose based on these criteria.

In GIS, MCE has mainly been implemented either using a Boolean overlay or weighted linear approach. In Boolean overlay, areas that are not suitable for development are delineated by delineating mappable variables into true/false statements of suitability for the decision under consideration. Such variables are sometimes termed constraints. In comparison, in weighted linear combination, some quantitative criteria are evaluated as continuous variables, thereby depicting varying degrees of suitability for the decision under consideration, and are often referred to as factors (Eastman, 1999).

Selecting sites for ecotourism development involves evaluating conflicting criteria such as distances to roads, public services, archaeological sites, rivers, etc. To do this in the present study, participatory GIS and MCE techniques have been used.

Participatory GIS and MCE was used for this research because it was found to be suitable for the selection and combination of existing digital map layers, unlike participatory mapping which is about the generation of spatial data by people drawing on top of aerial photography and the process of spatial thinking.

3.5 Inter-relationship between Chapters

Figure 3 shows the three analysis chapters (5, 6 and 7) and how they are related to each other with the timeline indicating when the work for each chapter was undertaken. For instance, in 2012, the fieldwork for Chapter 5 was undertaken through an *initial stakeholder consultation*, together with the collection of information from the GBT and secondary data. The potential ecotourism sites suggested by the participants in this consultation and the secondary data collected were then integrated with the data collected through a *follow-up stakeholder consultation* in 2014, and ultimately informed the GIS-based multiple criteria evaluation analysis for chapter 7.

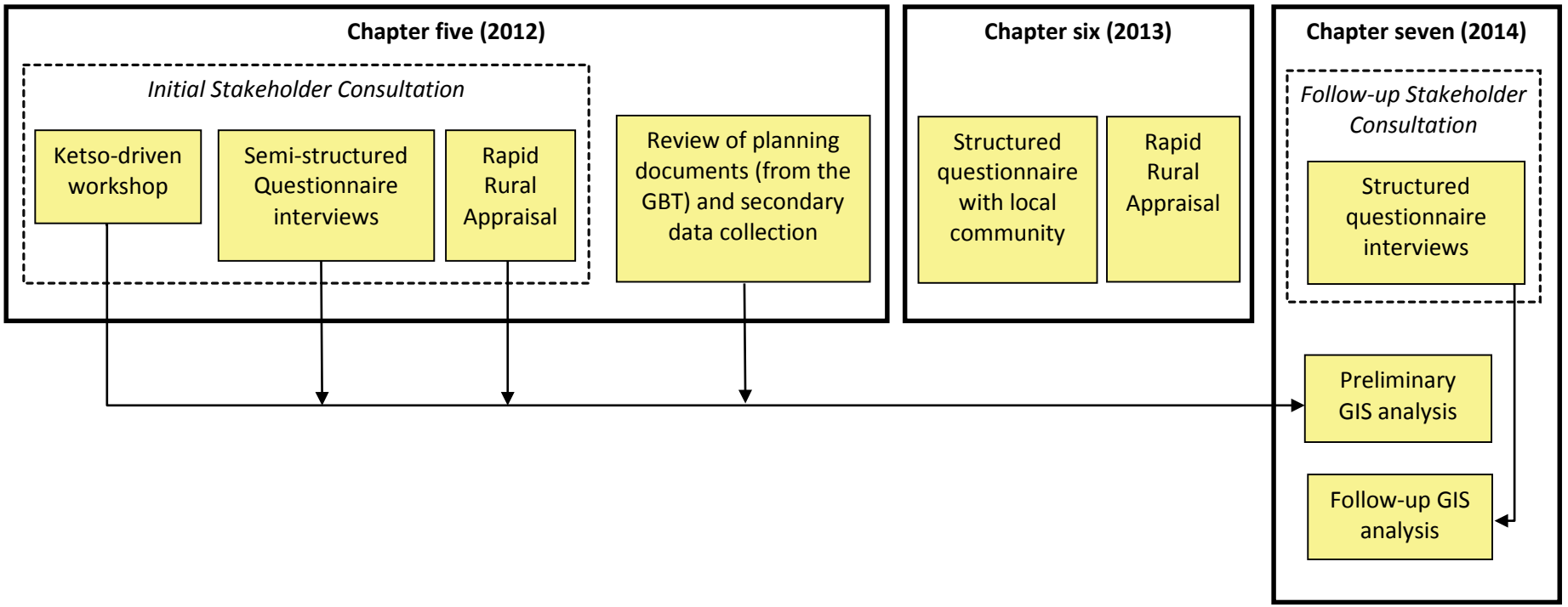


Figure 3: Schematic diagram showing the timeline for and the inter-relationship between research activities undertaken for the thesis.

3.6 Structure of subsequent chapters

The next chapter describes the Kurdistan region as a case study for this project. The following three chapters (5, 6 and 7) explore the data collection and analysis undertaken for the research. The details of how each methodological approach was carried out are explained in each analysis chapter. For example, sections 5.3.1, 5.3.2 and 5.3.3 explain the detailed methodology adopted for the Ketso style workshop, semi-structured interviews and RRA (*initial stakeholder consultation*). Similarly, sections 6.3.2 and 6.3.3 give more details on the implementation of the RRA and structured interviews, respectively, with the local community in Ruste village. Section 7.3.3 discusses the structured questionnaire interviews (*follow-up stakeholder consultation*) in greater detail. All the findings from these three chapters combined are then discussed in the final discussion and conclusion chapter (chapter 8).

Chapter 4: Study Site

This chapter discusses about the Kurdistan region as a case study site for ecotourism development. It describes the region in geo-political terms. This chapter also exposes the steps which have been taken by the KRG to develop tourism and ecotourism. In addition, some of the region's natural and cultural aspects are presented here, indicating the region's potential to develop ecotourism.

4.1 The Kurdistan Region of Iraq

Kurdistan means the land of the Kurds, and this term, contemporarily, refers to parts of northern Iraq (Iraqi Kurdistan), south-eastern Turkey (Turkish Kurdistan), north-western Iran (Iranian Kurdistan), and northern Syria (Western Kurdistan). It also covers a small part of Armenia.

The Kurdistan Region of Iraq is located between 42˚20' – 45˚15' longitude and 37˚23' – 34˚20' latitude. It covers 65000 km^2 which is about 15% of Iraq's total area (Figure 4).

Figure 4: The Kurdistan Region of Iraq.

Chapter 4

It is well-known that for decades Iraq experienced a debilitating series of wars and, more recently, ongoing internal conflicts, and the Kurdistan Region has had its share of problems. However, the Kurdistan region became semi-autonomous in 1991 after the uprising of the Kurdish people against Saddam Hussain's regime, and a northern no-fly zone was established following the First Gulf War. This allowed the region de facto to administer its own affairs independent of Iraqi forces but still as an integral part of a united Iraq. In 2003, after the Second Gulf War, the new political changes led to the ratification of a new constitution of Iraq in 2005. This declared the Kurdistan Region of Iraq as a federal entity of Iraq. Iraq now functions as a parliamentary democracy, and Arabic and Kurdish have been established as Iraq's joint official languages [see the UKBA (2009) for more information].

The Kurdistan Region, which is called 'Herêmî Kurdistan' in Kurdish, has a population of about 4.5 million living on 40,000 square kilometers (15,000 square miles), distributed mostly in the three governorates (administrative areas) of Erbil, Duhok, and Sulaimani as well as in small areas of Nineveh, Diyala and Kirkuk Governorates. However, the part of the region located in Diyala has recently been officially considered as a new governorate by the Kurdistan Regional Government (KRG), and is called the Garmiyan Governorate. Erbil city is considered the capital of the region and is where the regional government is based. In the region there are diverse ethnic groups including Kurds, Chaldeans, Assyrians, Turkmen, Yazidis, and others, who live together in comparative harmony and tolerance (KRG, 2013a).

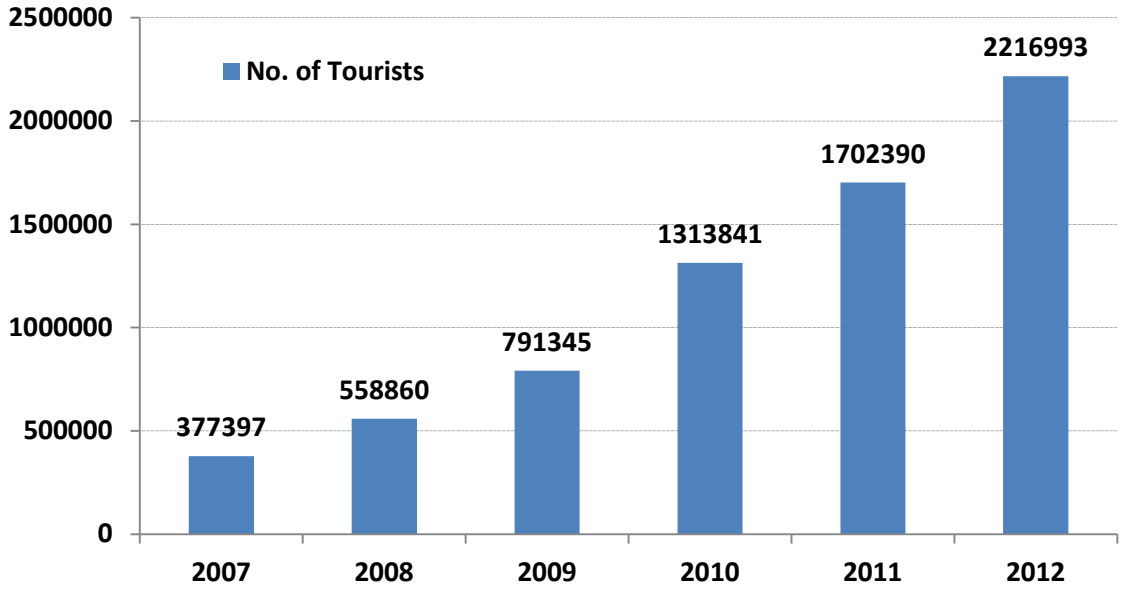


Figure 5: The number of tourists (national and international) in the Kurdistan Region for 2007-2012. (Derived from statistics published on the General Board of Tourism website (GBT, 2013a) and the official Kurdistan Regional Government website (KRG, 2013c).

Recently more efforts and new steps are being taken by the KRG to attract more international tourists to the region. The main objective of such actions is to introduce Kurdistan as a tourism destination to other countries and attract more international tourists. However, the GBT tourism master plan, which was designed in 2012 with a planning horizon of 2025, (KRG, 2013e) does not include plans for participatory tourism/ecotourism development with the engagement of local people.

The rapid advance of the militant group the Islamic State in Iraq and Syria (ISIS) has overwhelmingly changed the political and security situation in Iraq. This occurred in late 2014 when ISIS took control over some cities and towns in northern Iraq, such as Mosul, Tikrit, Shingar, Tilafar, and Tilkef. As a consequence, more than 830,000 civilians fled to other areas of Iraq. Tens of thousands of Yazidis, identified as Kurds from Shingar, fled to the Kurdistan region, mainly to Duhok (Al-Dawoody, 2015). This has negatively impacted intra-regional trade, investment, jobs and tourism (Dun&Bradstreet, 2014).

4.2 Steps Taken to Develop Tourism in the Region

The Kurdistan Regional Government (KRG) through the General Board of Tourism (GBT) has been putting considerable effort into developing tourism in the region using various means. For example, producing a tourism guide every year is one of the new and important steps taken recently. In 2012, and for the first time in Kurdistan, a Religious Tourism Guide was introduced in both the Arabic and English languages, titled 'Religious Tourism in Kurdistan'. This guide includes 22 shrines of the Islamic, Christian, Yezidi, and Zaradashti faiths. Also, a new Cultural Tourism Guide was introduced in November 2012 for Erbil, Duhok, Sulaimani, and Garmiyan (Rwsty, 2012c). Furthermore, the Kurdistan Tourism Guide was printed in both the Turkish and Persian languages in January 2013. Geographical Positioning Systems (GPS) technology was also utilised in 2012 to develop a new electronic guide for tourism in the region via software which tourists can use when driving cars (GBT, 2013b). Furthermore, in October 2012 the first class, of 17 people, from both private and public sectors, graduated from a course in 'Marketing Services', which focused on the tourism industry and was sponsored by the GBT. The aim was to improve marketing of the Kurdistan Region internationally.

Due to the increase in tourist numbers into the Kurdistan Region, a need for more accommodation and tourism facilities was recognised, especially during tourism seasons (spring and summer) and public holidays, and there has been a considerable increase in tourism facilities. For example, in 2003 no more than 90 hotels existed in the whole region (Wahab, 2012). Before the end of 2012, the number of hotels, motels, and tourism villages had increased to 444, 242, and 54 respectively, increases of 12% , 19%, and 14% compared to the year before (GBT, 2013a; Rwsty, 2013b). This growth reflects contributions from private investment and support from the KRG.

The number of private tourism companies is increasing. Some of these companies have already started to bring in tourists from abroad. For example, the Rafidain Company for Tourism hosted 16 German tourists in the region in September-October 2012 (Rwsty, 2012b). Meanwhile, visitors have been coming to the Kurdistan Region through international tour operator companies too. For example, a tourism company called The Traveller took a small group of tourists from Europe to the Kurdistan Region in March-April of 2012 which lasted for a few days, and the same trip is planned for the year 2013, as advertised on the company's website (Traveller, 2013).

One of the most important steps which has been taken by the KRG is that the GBT has categorised tourism in the region into 12 categories (GBT, 2013c):

1. Archaeological Tourism
2. Religious Tourism
3. Remedy Tourism
4. Winter Tourism
5. Eco-Tourism
6. Agricultural Tourism
7. Political Tourism
8. Water Tourism
9. Adventure Tourism
10. Youth Tourism
11. Conference Tourism
12. Sport Tourism

This indicates that the tourism administrative sector in the region has already begun revising or developing its vision and that its aims have widened beyond merely economic gain. Rather, the region is focussing on other attributes, such as the attractive natural environment and rich cultural heritage, which can create opportunities for diverse kinds of tourism such as adventure, archaeological, religious, and ecological tourism. This segmentation of the tourism market – and explicit recognition of ecotourism as one such segment – is indicative of a maturing industry within the region.

4.3 Developing Ecotourism in the Region

As an initial step towards ecotourism development, new plans for three ecotourism projects were discussed in April 2012 at a conference organised by the newly established Ecotourism Committee of the General Board of Tourism (GBT). A proposal was presented at the conference to prepare a practical plan with the participants to develop ecotourism in three areas [Ruste village on Halgurd-Sakran Mountain in Erbil, Halabja town in Sulimani, and Amedi town in Duhok (Jaleel et al., 2012) – see Figure 6]. These were selected based upon different criteria, namely a pristine natural environment, unique landscape, traditional lifestyle among local communities, and cultural heritage. Among these proposed areas, Ruste village was then chosen for development as a first ecotourism destination in the Kurdistan Region. Beside the conservation objectives behind this project, aiming to preserve the natural and cultural heritage of these areas, one other main goal of the Ruste village ecotourism project, according to the GBT, was to fight poverty in the area. Efforts are now underway at the GBT to implement ecotourism development in Ruste. These include a survey undertaken in Ruste by Jaleel (2012) in the form of questionnaire interviews with

local people to investigate their livelihoods. In addition, the KRG has been developing Halgurd-Sakran National Park, the first national park in the region, for the last two years.

Figure 6: The location of the Kurdish ecotourism areas proposed by the General Board of Tourism.

A practical step has been taken by the NGO Nature Iraq by building the first eco-camp in the region (Figure 7). This was open for use by local and international ecotourists in 2011 (NI, 2013). It is now advertised internationally by several companies, notably on the web site of Responsible Travel (ResponsibleTravel, 2013).

Figure 7: Eco-camp built by the NGO Nature Iraq in 2011. (Source: http://ecocamp.me/gallery/)

Despite the lack of protected areas, such as nature reserves and national parks, which are considered important for ecotourism development, the Kurdistan region still has abundant

natural and cultural resources, which, if planned and managed well, could foster ecotourism development successfully.

4.4 Natural and Cultural Heritage of Kurdistan

Having a moderate Mediterranean climate with a complex mosaic of topographic settings, and being a land that has supported civilisations for many thousands of years, the Kurdistan region has abundant natural and cultural resources. These have a great potential to attract domestic and international tourists for various types of tourism. The next few sections explore the region's natural and cultural resources that could be used to foster the development of ecotourism.

4.4.1 Natural Resources

I. Geography and Climate

The Kurdistan Region of Iraq shares its borders with Syria in the west, Turkey in the north and Iran in the east (Figure 4). The region is mainly mountainous, with an average elevation of about 2400 meters. The highest point is Halgurd Mountain peak, which is about 3,660 meters (12,000 feet) above sea level. This mountain is part of the Larger Zagros mountain range. The region has a mean high temperature of 39-43 °C in the summer months (June-August) and a mean low temperature of 2-7 °C in the winter months (December-February). The average temperatures in spring and autumn are 24-29 °C. The annual precipitation ranges from 300mm to more than 1000mm on some of the mountain slopes (KRG, 2013d).

The region has much fertile alluvial land because of many rivers flowing from surrounding mountains, which makes water plentiful almost everywhere in the region. Running from the east to the west, the Great Zab and the Little Zab rivers flow into the Tigris River, which enter Iraq through the Kurdistan Region from the north-west after flowing from Turkey. Dukan Lake is the largest lake in the region. The other large lake is Mosul Lake, in south-west Duhok province; the lake lies in an area which remains one of the disputed territories between the Kurdistan Regional Government and the Iraqi Central Government (Hanauer et al., 2011). Additionally, there are several other smaller lakes in the region such as Duhok Lake (Figure 12).

The mountainous nature of the Kurdistan Region and the abundance of water resources are coupled with a semi-arid continental climate, very hot and dry in summer and cold and wet in

winter. This has resulted in a varied ecology, as well as providing a suitable environment for agriculture, and, now, tourism.

II. Biodiversity

The biodiversity of Iraq in general and the Kurdistan Region of Iraq specifically is in an extremely vulnerable state after the wars and conflicts of the last few decades and the unstable political situation. Thousands of villages in the Kurdistan Region have faced destruction by being attacked and being bombarded with chemical weapons. There was a massive migration of Kurdish people during the Anfal campaign during the 1980s. Both these were consequences of actions by the previous Iraqi regime (Black, 1993). It is understandable, therefore, that historically the inhabitants generally and the authorities specifically put a low priority on conservation. In addition, underlying problems such as extensive deforestation, overgrazing and failure of traditional land management have, for decades, threatened the region's biodiversity. More recently, rapid economic development has had a great influence on the reduction of natural areas.

However, recently steps have been taken by various organisations, governmental and private, to tackle the different threats to the environment and to conserve the region's wildlife. A non-governmental organisation working in Iraq called Nature Iraq, for example, has been working actively in trying to conserve the biodiversity of Iraq and in the Kurdistan Region too (see www.natureiraq.org). Nature Iraq aims to preserve biodiversity through its own programme of conservation research and field studies and also in partnership with some other international conservation bodies, for example the Royal Botanic Gardens Edinburgh and Birdlife International (Bird-Life, 2012).

The Kurdistan Region has a rich natural heritage. The diversity and distribution of the biological communities in the region is considerable because of the variation in environmental characteristics (e.g. altitude, soil type, rainfall, and temperature) within the region. Beside these natural factors, other anthropogenic effects also influence the diversity of flora and fauna and their distribution in the region. Such factors include forest/grassland fires, tree cutting, over-grazing, pesticides, and the road network.

i. Flora and Vegetation

The Kurdistan Region has diverse vegetation types, including forests, steppes, tragacanth formations (legumes that produce natural gum), halophytic communities (plants grow in water of high salinity) and psammophytic communities (plants that grow in sandy soil) (Ararat et al., 2008). The forest communities in the region (which cover about 2.5% of the land area) are mainly characterised by deciduous oaks e.g. *Quercus aegilops*, *Quercus infectoria*, and *Quercus Libani*, which compose more than 80% of the forest cover, juniper trees (*Juniperus* spp.), and pine forests dominated by e.g. *Pinus brutia* and *Pinus halepensis* (Hadri and Guellouz, 2011). There are also dry steppe zones and moist steppe zones. In addition, tree species such as *Juglans*, *Prunus*, and *Pistacia* exist within the other plant communities mentioned above.

According to Ararat et al. (2008, p. 82), as an initial assessment, Plant Life International had indicated five rare plant species in the Kurdistan Region to be included within the list of Important Plant Areas (IPAs). "*Rubus caesius* which is considered rare in Sharbazher Area and Garagu (Flora of Iraq, Vol.2, p120); *Equisetum arvense* in Sharbazerh Area (Flora of Iraq, Vol. 2, p55); *Typha lugdunensis* which is considered rare in Fishkhaboor-Turkish Border (Flora of Iraq, Vol.8, p213); *Quercus macranthera* which is considered very rare in Sulav (Flora of Iraq, Vol.4, Part1, p49); and *Linum velutinum* which is considered very rare in Garagu (Flora of Iraq, Vol.4, Part 1, p281)".

ii. Fauna of the Region

a. Mammal Community

The Kurdistan Region is considered an important hotspot for fauna in the Middle East. This includes endangered, vulnerable, near threatened, species of conservation concern, and species of least concern (NI, 2011b; Ararat et al., 2011; Raza et al., 2011; Ararat et al., 2009) according to the International Union for Conservation of Nature (IUCN) [www.iucn.org]. The codes shown in Table 2 are used to highlight each species' conservation status as assessed by the IUCN (IUCN, 2013).

Table 2: Codes used to describe species' conservation status, as assessed by the IUCN (IUCN, 2013)

Code	Status	Description
EN	Endangered	The species is facing an extremely high risk of extinction in the wild.
VU	Vulnerable	The species is facing a high risk of extinction in the wild.
NT	Near Threatened	The species does not meet any of the criteria that would categorise it as risking extinction but it is likely to do so in the future.
LC	Least Concern	There are no current identifiable risks to the species.

Some of the mammal species of conservation importance are listed in Table 3.

Table 3: Animal species in the Kurdistan Region of Iraq (Ararat et al., 2009) with their conservation status according to the IUCN (www.iucnredlist.org)

Common Name	Scientific Name	Conservation Status
Persian Leopard	*Panthera pardus saxicolor*	EN
Eurasian Otter	*Lutra lutra*	NT
Wild Goat	*Capra aegagrus*	NT
Least Weasel	*Mustela nivalis*	LC
Cape Hare	*Lepus capensis*	LC
Wild Boar	*Sus scrofa*	LC
Persian Squirrel	*Sciurus anomalus*	LC
Indian Crested Porcupine	*Hystrix indica*	LC

Iconic animals have been utilised as a means for raising public awareness and for fundraising for conservation projects in developing countries. This process eventually provides revenues for wider biodiversity conservation in protected areas where flagship species exist (Walpole and Leader-Williams, 2002). Despite the fact that predatory mammals or large herbivores can threaten livestock or crops of local people in some developing countries (e.g., a wolf may eat someone's sheep or an elephant may trample someone's crops), iconic species attract the attention of the Western public and are promoted by international conservation organisations. By being given conservation status, e.g. being endangered (EN) or near threatened (NT) [Table 3], a species may be defined as a "flagship" species, and as such it can have a strategic socio-economic role in the community as well an ecological role. Flagship species increase the demand for tourism and the need to protect the environment, and consequently they benefit local people from the funds earned from tourism (Goodwin, 1996). Even though there is little literature on flagship species in the Kurdistan Region of Iraq, the large animal species mentioned above attract the attention of conservationists and the public (Leader-Williams and Dublin, 2000) [Figure 8, 9, 10 and 11]. Similarly the flagship species in the Kurdistan region have the potential for promoting

ecotourism and providing funds for local people and conservation while further developing the tourism and ecotourism industry in the region.

Figure 8: Persian Leopard (*Panthera pardus saxicolor*). Photo captured by a camera trap set by the CLP Nature Iraq team in Qara Dagh in October 2011 (Source: http://maildogmanager.com/page.html?p=000001XDDtjL2KurMdfWs/z6ktHaRjkw==)

Figure 9: Persian Leopard (*Panthera pardus saxicolor*) was poisoned and killed in November 2012 in Diana (Zozik Mountain) (Source: https://www.facebook.com/photo.php?fbid=485527384816619&set=a.363264070376285.74248.303983699637656&type=1&theater)

Figure 10: Brown Bear in the Barzan Area (Shirin Mountain). Photo by © Muhammad Barzani.

Figure 11: Wild Goat (*Capra aegagrus*) in Barzan Area. Photo by © Muhammad Barzani.

b. Bird Communities

The diversity of water bodies within the region, including reservoirs, rivers, streams, springs, and marshlands, offers a variety of habitats for many species of birds. These also include species classified as endangered, vulnerable, near threatened, of conservation concern, and of least concern species (NI, 2011b; Ararat et al., 2011; Raza et al., 2011; Ararat et al., 2009) according to the International Union for Conservation of Nature (IUCN) (www.iucn.org). Different kinds of birds use these areas for different activities such as wintering or staging, or as stopping points along their migration route. Three large wetlands in the region, including the Dukan and Darbandikhan lakes, along with the unfinished Bekhma dam, have been defined as Important Bird Areas [IBAs] (Evans, 1994), as shown in Figure 12. Birds congregate in great numbers in these sites when breeding, in passage, or in winter, including those which are globally threatened species (Ararat, 2009). Ararat, in his 'Key Biodiversity Survey in Kurdistan', indicates that the Altun Kopri marshland in Erbil Governorate is also another important Key Biodiversity Area (KBA) site, as important numbers of birds congregate at this wetland site.

According to Ararat (2009) the following sites also meet the KBA criteria for having important bird species:

- Duhok Governorate: Gali Zanta and Garbeesh Mountain, Ser Amadiya, Atrush, Benavi, Zawita, Mangesh, Fishkhaboor, Sararu.
- Erbil Governorate: Haji Omran, Smaquli and Ashab Valley, Taq Taq, Bakhma, Barzan, Kherazook, Bahraka.
- Sulaimani Governorate: Kalar, Ahmad Awa, Hawraman, Penjween, Peramagroon, Sargalu, Chamchamal, Chami Razan, Qara Dagh, and Sharbazher.

There are also some other sites, such as Kalakchi and Khazar; Duhok Lake; Turaq Steppe; Aski Kalak; and Sangaw, that have important bird communities; however, according to Ararat's survey they do not match the KBA criteria for bird species.

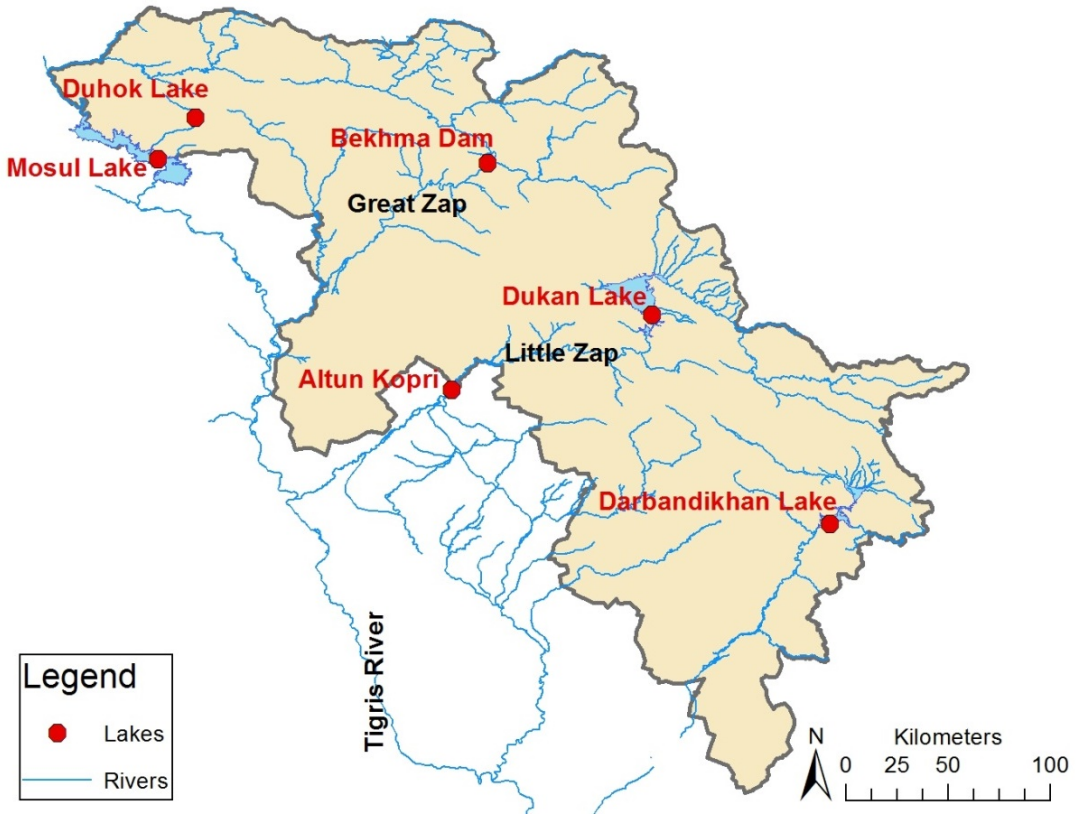


Figure 12: Map of the Kurdistan Region showing the Wetlands (Dukan and Darbandikhan lakes and the unfinished Bekhma Dam) defined as Important Bird Areas.

The above sites have been identified by Ararat et al. (2009, p. 13) using four criteria based on the presence of species categories for which site-scale conservation is appropriate. As they state, these criteria are: “Globally threatened species; assemblage of restricted-range species; congregations of species that concentrate in large number at a particular site during some stage in their life cycle; and assemblages of biome-restricted assemblages”.

Some of the important bird species within the region are listed in Table 4.

Table 4: Bird species in the Kurdistan Region of Iraq (Ararat et al., 2009) and their conservation status according to the IUCN (www.iucnredlist.org).

Common Name	**Scientific Name**	**Conservation Status**
Plain Leaf Warbler	*Phylloscopus neglectus*	LC (New record of this bird at Peramagroon Mountain)
Egyptian Vulture	*Neophron percnopterus*	EN and CC*
Lesser White-fronted Goose	*Anser erythropus*	VU and CC
Asian Imperial Eagle	*Aquila heliacal*	VU and CC
Lesser Kestrel	*Falco naumani*	VU and CC
European Roller	*Coracias garrulus*	NT and CC
Eurasian Spoonbill	*Platalea leucorodia*	LC and CC
Pygmy Cormorant	*Phalacrocorax pygmeus*	LC and CC
Red-crested Pochard	*Netta rufina*	LC and CC
Western White Stork	*Ciconia ciconia*	LC
Eurasian Hoopoe	*Upupa epops*	LC

* species of Conservation Concerns.

More bird species and their conservation status are listed in Ararat (2009).

As with large mammal species, bird species and birding, particularly as regards rare birds, also significantly attract the attention of wildlife tourists (Hvenegaard, 2002). The revenues from bird-watching tourists generate support for wildlife conservation activities (McFarlane and Boxall, 1996) and affect local people (Burger et al., 1995). Having a diverse species of birds, the Kurdistan region can attract diverse international birding groups, and this will significantly underpin the ecotourism industry in the region.

Figure 13: Egyptian Vulture [*Neophron percnopterus*] (Photo by © K. Hristor)

Figure 14: Eurasian Hoopoe [*Upupa epops*] in Zoragvan Village (Photo by © Muhammad Barzani)

Figure 15: European Roller [*Coracias garrulus*] (Photo by © Muhammad Barzani)

Figure 16: European Roller [*Coracias garrulous*], Barzan Area (Photo by © Muhammad Barzani)

4.4.2 Cultural Resources

I. Ancient Near East or Middle East

Before the appearance of the civilizations of Greece and Rome, the most developed societies lived in the Near East, or what is now called the Middle East. Most of the archaeological knowledge of this area has been obtained over the 20th century and the second half of the 19th century through a range of archaeological discoveries, for example, excavations of the Assyrian Palaces and the first deciphering of the Babylonian cuneiform script in Iraq. Further insights were obtained piecing together the settlement history of many ancient sites.

It was in the Middle East where agricultural activities first took place, replacing hunting and gathering. Then people started building temples and cities for the first time. It was also here where the first metal production, the first writing systems, the first kingdoms and the first empires came into existence. Mesopotamia (5300 BC), located on the Tigris and Euphrates rivers, was the centre and the beginning of the Middle Eastern civilizations (Roaf, 1996), and modern Kurdistan, including the Kurdish areas in Iraq, Turkey, Iran, and Syria, was in the centre of it.

More recently, it has been found that settlements in the region date back to 6000 B.C. This time includes the prehistoric period of Halaf culture, which developed from Neolithic III (between 10,200 BC and 2,000 BC) at Tel Halaf in the Kurdish part of modern Syria, and was succeeded by the Ubaidian culture in 5300 B.C. This was then replaced by the Hurrians cultural period around 4300 B.C. The Guti and Hattians successively ruled during the 3rd millennium B.C. Then in the 2nd and 1st millennium B.C., the Kurdistan Region witnessed settlement by different groups such as the Kassites, Mitanni, Mannai, Urartu, and Mushku peoples, who shared similar culture and language, until it was occupied by the Indo-Europeans (Aryan Period), who added further influences on the regional culture (Bertman, 2003).

These numerous layers of cultural and genetic history were developed over thousands of years and made the Kurds distinct, ethnically and linguistically, from other surrounding nations including Arabs, Turks and Persians. This succession of human eras left behind substantial archaeological evidence of extremely ancient and rich cultures (Axe, 2006; Izady, 1993).

II. Archaeology of the Kurdistan Region

There are more than 30,000 archaeological sites in the Kurdistan Region, attesting to its ancient origins. The cultural heritage in the Kurdistan Region of Iraq and in the other three main parts of Kurdistan (Kurdish land) in Turkey, Iran, and Syria is considered one of the world's oldest. Kurds

believe that they are the descendants of the Carduchi nation, who lived in Corduene (in the 4th century BC) which was an ancient region located in northern Mesopotamia and was a part of the Armenian Empire for some time (Rawlinson, 2002). However, evidence shows that there were more ancient settlements in the region and human habitation back to the 7th millennium B.C. and even earlier (Axe, 2006). Despite Jarmo Village being considered the most ancient village in the world, inhabited about 7000 years ago, Zawyê Chamê Village yielded evidence of agricultural activities dating to over 12,000 years ago. This Neolithic village is located near Shanidar Cave in Erbil province and was excavated between 1951-1961 by a German archaeologist (Rwsty, 2013c).

The region's top archaeological attractions are Shanidar Cave (Figure 17) and the Erbil Citadel (Figure 19). Neanderthal remains have been found at Shanidar Cave, evidence that humans have inhabited the region for more than 60,000 years (KRG, 2013g). During the 1990s and up to 2005 the cave was used by local residents as a barn for livestock (Figure 18). However, after 2005 it was renovated and considered as a tourism destination by the KRG authorities.

Rising up about 32 metres above the surrounding city, Erbil Citadel is widely known as the landmark overlooking one of the oldest continually inhabited cities in the world, which dates back to more than 8000 years ago (Novacek et al., 2008). In 2010 the citadel was placed on Iraq's Tentative World Heritage List (UNESCO, 2013b). In 2007 after a 'Conservation Master Plan' was established in the form of an official agreement with UNESCO by the KRG to preserve and enhance this unique historic town. The master plan, with the vision of 10 years, intends to revitalise the Citadel through preparing essential assessment and studies required of rehabilitating it and restoring a number of buildings located along the perimeter of the Citadel and also to undertake remedial works to prevent future damages. Due to structural deterioration and water movement inside the Citadel, it was abandoned, possibly for the first time in its history, in 2007, in anticipation of the development. The plan also intends to choose around fifty houses to be re-inhabited by the original people of the Citadel. The focus is on receiving tourists. This will open the way for economic investment, and it will favour sustainable development for the Kurdistan region generally and for the Erbil inhabitants specifically. Finally, the plan is to submit the Citadel's file to the World Heritage List.

Located 70 km north-east of Duhok city is another historical site that has been documented in written records of the Assyrian Kingdom in the 9th century B.C. Amedi Town (Figure 20) and its surroundings represent a mix between the ancient culture and the unique nature that the Kurdistan Region encompassed in one setting. This ancient town is one of the world's oldest cities and dates back more than 3000 years. It has been registered on Iraq's Tentative World Heritage List. Being one of the Mesopotamia cities and witnessing different civilizations throughout history,

many valuable antiquities are preserved within Amedi. For example, the city has two ancient gates, the eastern Zebar Gate and the western Mosul Gate (Figure 21), city walls and a temple. In addition, its significant elliptical shape (of about 1 km^2 and 450 m above the level of surrounding areas) placed on a hilltop above a plateau has given it a distinctive defensive quality against external raids throughout history (UNESCO, 2013a). The location of these historic sites within the Kurdistan Region is shown in Figure 25.

Figure 17: Shanidar Cave in Erbil province, (source: http://www.goldeneagleglobal.com/node/93).

Figure 18: Shanidar Cave in 2003, used as a barn for livestock animals (photo by © Kovan Ehsan)

Figure 19: Erbil Citadel (Source: http://en.wikipedia.org/wiki/Mulla_Effendi#/media/File:The_Great_Mosque,_Jan_2008.jpg)

Figure 20: Amedi Town placed on hilltop of a plateau, (source: http://www.dvidshub.net/image/173606/us-soldiers-take-part-kurdish-labor-day-celebration#.Ui9YxsZJOWU).

Figure 21: The Mosul Gate in Amedi Town (photo by © Kovan Ehsan)

Akre town (Figure 22), in Duhok province, has been inhabited since 700 B.C., and natural caves are located in the surrounding mountains and valleys. Located between Akre Town and Duhok City lie the Ruins of Kharusa (Khenis remains) (Figure 23), which was the home of the Assyrian king 'Sanhareeb', who ruled in 691 B.C. The very famous Lalesh and Sheikh Adi Shrines (Figure 24), which are located nearby, are visited by thousands of visitors every year who perform a six-day pilgrimage (KRG, 2013g).

These are the most prominent historic sites within the region. In addition to the sites mentioned above, in Kurdistan there are many other historical and archaeological places including towns, villages, shrines, castles, caves, etc., which play an important role in attracting tourists and ecotourists.

However, some of archaeological sites are not well preserved, while others are damaged or lost due to the rapid development of the Kurdistan region. The area of Erbil city, for instance, is rapidly increasing. It has increased about 30-fold since the 1970s, and as a consequence a vast number of archaeological sites are damaged. These destructive processes are also occurring because of a basic lack of archaeological maps of the country, which seriously compromises heritage management. Alongside this, the archaeological heritage of the region has not been the subject of extensive research because of political instability. Nevertheless, after the second Gulf War in 2003 the region has attracted various archaeological teams to start surveying the area. For example, a project entitled as 'The Settlement History of Iraqi Kurdistan' is being carried out by a

team of researchers from the Institute of Prehistory - Adam Mickiewicz University in Poznan - Poland and from the Kurdistan region, launched in 2012 on eastern and western bank of the Greater Zab river covering an area of 3000 square kilometres. This project aims to increase knowledge of the history of the Kurdistan region, including its settlement history, by collecting and analysing data on the heritage sites of the study area (Kolinski, 2014).

In summary, the Kurdistan Region is now gaining the reputation of being the safest and most welcoming area of Iraq to travel to (TimeWorld, 2013). Given its rich natural and cultural resources, the region has the potential to attract ecotourists with various specialist interests (including birding, mammal species, archaeology, indigenous culture, and pilgrimage) from around the world. The Kurdistan Regional Government is striving to develop the political environment, travel and accommodation facilities to encourage both the tourism and ecotourism industries and to cope with the rising demand for tourism in the region. However, there is a need for more concern from the authorities about the state of Kurdistan's natural and cultural heritage, as well as the need for more intensive research work to be conducted on that heritage.

Figure 22: Akre Town (Source: http://commons.wikimedia.org/wiki/File:Akre,_Iraq.jpg)

Figure 23: Khenis Remains (photo by © Kovan Ehsan)

Figure 24: Lalesh and Shikhadi Shrines (photo by © Nadr Rwsty)

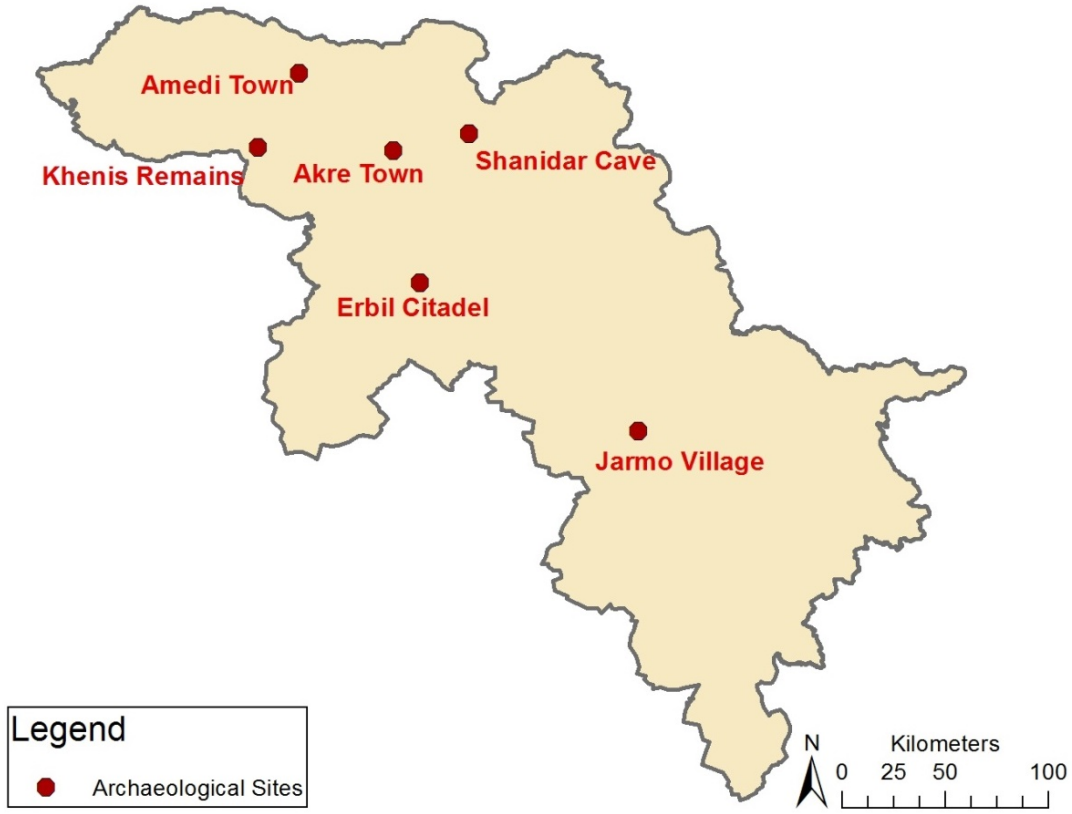


Figure 25: Archaeological sites of significance in the Kurdistan Region

Chapter 5: A Preliminary Ecotourism Stakeholder Analysis

5.1 Summary

The ecotourism industry is expanding worldwide and the Kurdistan Region of Iraq intends to develop this industry as part of its sustainable development strategy. Stakeholders from government and private agencies as well as NGOs were consulted to gain an understanding of their perspectives on this industry and potential ecotourism destinations. Stakeholder consultation took place through a workshop as a first stage based on stakeholder consultation techniques inspired by Ketso and a set of semi-structured interviews with stakeholders as a complementary follow-up stage. Afterwards, residents' attitudes towards a proposed development in rural areas were investigated through an initial community analysis by conducting several rapid appraisal interviews in three different communities. Lastly, the content of the latest ecotourism strategic plan for Kurdistan, which aims to develop three proposed primary ecotourism projects in the region, was compared to the interview and workshop findings.

Both workshop and interview participants identified a pressing need for greater environmental education and awareness, for improved inventories of environmental resources and archaeological sites within the region, and greater co-ordination in ecotourism development. Alongside this, there was little awareness among delegates of the importance of local community involvement.

5.2 Introduction

Understanding stakeholder perspectives is central to successful ecotourism development and for that reason they have been studied extensively (de los Monteros, 2002; Lai and Nepal, 2006). For example, benefit-sharing with local communities is a key part of successful ecotourism (Scheyvens, 1999; Ioannides, 1995), which remains difficult to achieve in practice, particularly in developing countries (Altinay et al., 2007) and even more so in post-conflict settings (Yasarata et al., 2010). Communication and co-ordination is also often cited as an obstacle to conservation and ecotourism development (Lipscombe and Thwaites, 2003), and stakeholders may have varied and sometimes conflicting perspectives on potential barriers, solutions and potential ecotourism destinations and products. However, as illustrated by He et al.'s (2008) study, stakeholder consultation can result in an equitable distribution of ecotourism benefits among stakeholders, which can then lead to greater support for conservation and more sustainable ecotourism development. This means that active participation of different stakeholders is important for tourism planning, as it takes into account their knowledge and various aspirations (Tippett et al., 2007). Despite its importance for ecotourism development, benefit-sharing with local communities is often overlooked by other stakeholders as a result of the imbalance in knowledge and power (Sofield, 2003). The term power reflects the social, since it occurs in relationship to others, and the political, since it is affected by political situations (Sofield, 2003; Speer and Hughey, 1995).

As shown earlier (Section 4.3), whilst there are previously published studies of ecotourism in Kurdish regions of neighbouring countries, there is very little published research on ecotourism and even tourism in the Kurdistan autonomous region of Iraq (McGahey, 2006). While local knowledge about the environment and ecotourism is an important issue for a successful ecotourism development (Zhang and Lei, 2012; Johnston, 2000), people in Kurdistan have paid limited attention to the environment during years of hardship from war and uncertain security. However, it has been shown that ecotourism development in some post-conflict situations has potential to revive the economy and support sustainable development. This improvement was evident in the post 1994-98 civil war and genocide in Rwanda after which the tourism industry became the county's highest foreign economic source from 2007, by developing ecological and community-based tourism (Alluri, 2009). The same was true following the Lebanese 1975-1990 civil war when the tourism industry thrived through building peace treaties, political improvements, long-term strategic plans and reconstruction projects, government support for private development projects and most importantly prioritising of tourism development. This is alongside its unique natural and cultural heritage (Ladki and Dah, 1997). In other post-conflict settings, however, sustainable tourism development was negatively influenced by political

obstacles, such as in Bosnia and Herzegovina where lack of institutional support and unease in dealing with complex socio-political settings impeded its development (Causevic and Lynch, 2013).

This chapter aims to investigate Kurdish ecotourism stakeholder perspectives within the context of post-conflict recovery and ecotourism development in the Kurdistan region. From a stakeholder perspective, this investigation exposes some of the incentives and barriers for potential ecotourism development in the region and examines the inter-relationship between different Kurdish ecotourism groups, particularly with local communities and factors that underpin this interaction. In addition, this chapter assesses stakeholders' knowledge of ecotourism concepts and explores their perceptions of desirable ecotourism destinations and products. In doing so, it seeks to explore the issues affecting participatory planning in a setting without a well-established democratic tradition.

5.3 Methods

Four fieldwork approaches were used to gather relevant data for this research, namely a workshop using stakeholder consultation techniques inspired by Ketso, semi-structured interviews, Rapid Rural Appraisal (RRA) techniques in local communities, and review of planning documents from the General Board of Tourism (GBT). Figure 26 shows the methods used to obtain and analyse the data.

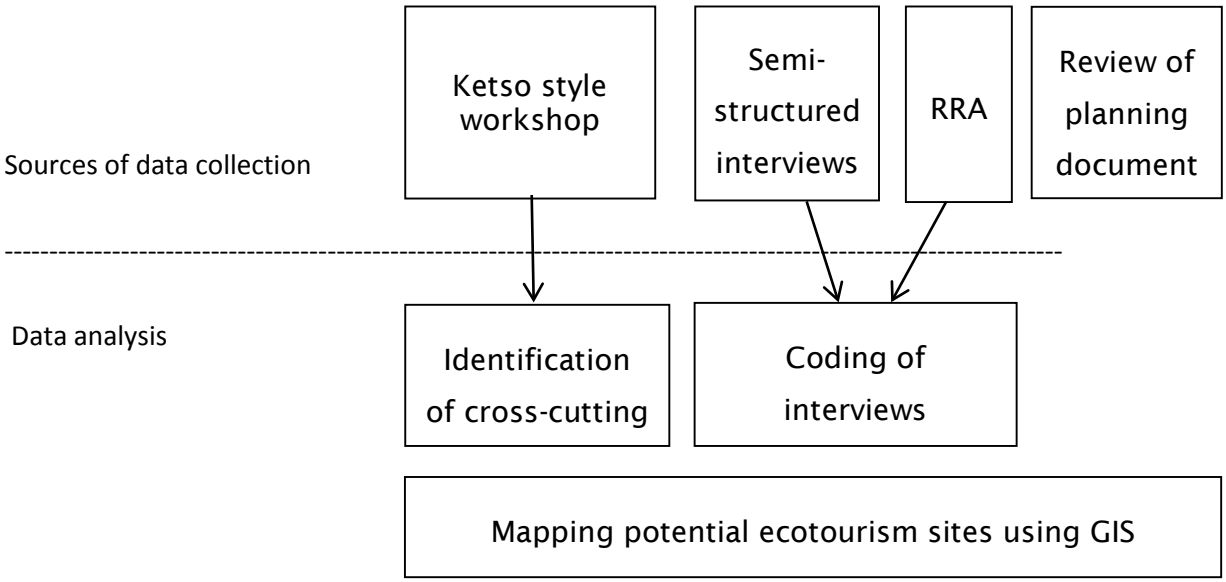


Figure 26: Schematic diagram for methodological stages in conducting a preliminary ecotourism stakeholder analysis

5.3.1 Ketso-Derived Workshop:

5.3.1.1 Sampling: Workshop Delegates

To encourage participants to think creatively and contribute, a one day participatory workshop was run in 21st February 2012 in the Cultural and Social Centre at the University of Duhok / Kurdistan Region of Iraq (Figure 27). Workshop participants were selected by contacting relevant Kurdish stakeholders known to the researcher. In total 9 delegates participated in this event, representing the University of Duhok; Salahadin University; the University of Sulimani; General Directorate of Tourism; Environmental Protection Force, Zawita; and Directorate of Environment. These participants were chosen because they were considered to affect or be affected by tourism planning, following the stakeholder definition of Eadens et al. (2009). Delegates from the Ministry of Municipality and Tourism, from an NGO (Nature Iraq), and from a private tourism company were also invited to attend the workshop but were unable to attend. These three absent delegates were interviewed in the follow-up interviews described in Section 5.3.2.

Figure 27: Map of the Kurdistan Region of Iraq showing the ecotourism destinations proposed by the GBT, the RRA meeting sites, and the location of the workshop

Figure 28: Participants drawing their ideas on different coloured cards and placing them on a workspace (photo by Ahmad Qasari)

5.3.1.2 Workshop Protocol: The Ketso-Derived, Hands-on Toolkit

A stakeholder participatory technique inspired by the Ketso (www.ketso.com) toolkit was adopted to run the workshop activities. The Ketso style technique was chosen because of its flexibility, the ready availability of training materials in its use, and because it remains relatively under-researched (see Section 3.4.1). In addition, Ketso's roots lie in the hands-on approaches of PRA (Furlong and Tippett, 2013). Ketso has been used in different situations such as small groups (e.g. a focus group meeting with three people) or big groups (e.g. a consultation with several hundred people) and with both literate and illiterate participants across many places and diverse settings (http://ketso.com/examples-case-studies). Ketso provides an environment where all individuals can express an opinion, even those who find it difficult to talk in front of groups, or perceive their ideas as lacking value, to help them participate in different planning stages. Participants can also get involved in finding patterns and prioritising ideas and seeing what key themes emerge (Ketso, 2012a) as per the workshop agenda (Appendix 1).

Figure 29: An example of a Ketso-derived 'workspace', with participants' ideas added using coloured cards

There are four different colours of card for recording participants' ideas. The colours represent goals/next steps (yellow), existing assets (brown), future possibilities/solutions (green), and problems (grey). Different 'workspaces' are set up around the room, which are used for grouping together similar ideas. There is flexibility as to how workspaces are organised, but the EASEL template (Economic; Activities; Social; Environment [Built] and Infrastructure; and Landscape and Ecology) is commonly used (Ketso, 2016) and was used here. These themes are explained in more detail in (Appendix 1). A commercial Ketso kit can be bought or rented, consisting of a portable bag containing coloured leaf-shaped cards, several 'workspace' mats, and symbols for highlighting key or problematic ideas (Appendix 1). However due to financial constraints, the commercial kit was not used, but rather the participants drew their ideas on coloured cards (Figure 28 and Figure 29) and displayed them on boards being used as 'workspaces' rather than on mats. The implications arisen from not using the actual commercial Ketso kit are explained in section 8.4.

During the workshop activities each of the four thematic areas (goals/next steps; existing assets; future possibilities/solutions; and problems) was considered in turn at the workshop, as per the workshop agenda (Appendix 2). For each area, each participant independently wrote down

relevant ideas on pieces of card. They then discussed their ideas with other participants and placed them on the 'workspaces', grouping ideas under the pre-determined EASEL themes represented by each workspace.

During this workshop stage, a map of the Kurdistan Region was also affixed to a display board, on which participants placed cards representing 'existing assets'. This enabled potential ecotourism destinations to be mapped (Figure 30). The participants were then given the opportunity to discuss one another's ideas as they were able to move them between boards, and mark up important or problematic ideas using symbols. Workspaces were then photographed to record their content.

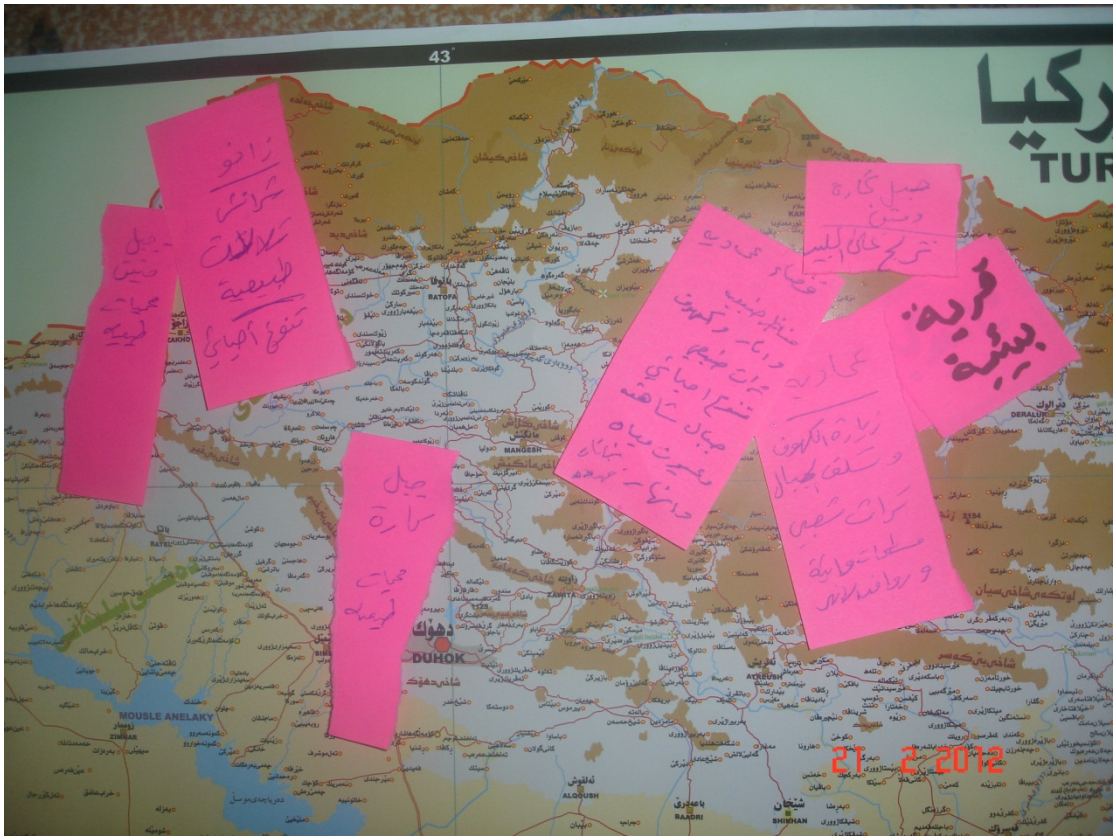


Figure 30: Potential ecotourism activities as located on a map of Kurdistan by workshop participants

5.3.1.3 Analysis of Workshop Activities

Ideas from workshop delegates, as noted on coloured cards, were entered into a template spreadsheet – developed by Ketso for analysis of results – (http://ketso.com/resources-downloads/downloads/software), which was used to develop summaries of workshop findings. These ideas were first sorted according to the pre-defined themes (i.e. activities, social, environment, landscape and ecology, and economics). Ideas were then collated into new groups

of similar meaning, assigning cross-cutting themes that emerged across ideas from all the different groups. The proposed potential ecotourism sites marked on the map by participants as shown in Figure 30 were then plotted using the ArcGIS software (Figure 34).

5.3.2 Semi-Structured Interviews

5.3.2.1 Sampling

Since the workshop participants were all known to the researcher, they potentially represented a partial and biased subsample of ecotourism stakeholders in the region. Because there is no readily available and comprehensive list of all ecotourism stakeholders, the required target group for the study could be described as a 'hidden' population. Therefore, the chain-referral method (Heckathorn, 2002) was used to select the sample by using a 'snowball sampling technique' (Auerbach and Silverstein, 2003; Waayers et al., 2012). This technique identifies relevant stakeholders based on the knowledge and social networks of other stakeholders (Rowley, 1997; Finn, 1996). Each stakeholder is asked to nominate others who they see as sharing the same stakeholding characteristics to be interviewed subsequently. Then similarly, this second and subsequent 'waves' of nominated respondents are asked to name other relevant stakeholders. Sampling stakeholders took place in two stages, an initial survey immediately after the Ketso-derived workshop in February - March 2012 and an extended survey which took place in June-July 2014.

Initial survey: Several workshop participants, considered 'wave 1' of the snowball sample, were independently asked to name one or more candidate stakeholders, who then formed the 'wave 2' respondents in the interview process (Appendix 7). The referral process was repeated with the 'wave 2' respondents, which generated a set of 'wave 3' contacts and subsequently a 'wave 4' set, where the participants are coded as P1, P2, etc. (Currie et al., 2009). However, as the 'snowball' sampling evolved, it became apparent that none of the initial or subsequent respondents were recommending private sector stakeholders for interview, despite prompting on this issue. Consequently, to overcome this deficiency in the referral process, contact details for a list of 10 Kurdish tour operators, out of about 40, were randomly obtained from the GBT website (GBT, 2012). Beginning with an arbitrary operator on this list, 5 operators were phoned to ascertain their eligibility for the study. Outbound-only tour operators, who arranged trips outside the region for Kurdish nationals (typically to Turkey) were excluded from the study. Two operators who expressed willingness to participate and who were currently or planning to arrange inbound tourist activities were included.

Extended survey: In June-July 2014, an expanded set of new participants were also interviewed, identified via the snowball sampling through the initial survey participants from waves 2, 3 and 4. These formed waves 5 and 6 and these participants are coded as E1, E2, etc. (Appendix 7). These new participants were contacted by phone or over Skype and interviewed the same way the initial survey participants were. Despite this, the snowball sampling technique again failed to identify stakeholders from some organisations that could potentially have an interest in ecotourism development. i.e. those individuals and/or organisations considered tourism/ecotourism stakeholders according to Choi and Sirakaya (2006), Eadens (2009), and Lu and Bao (2004). Therefore, some additional participants were chosen to represent these sectors, independently of the 'snowballing'. These participants included an oil company worker, chosen because some participants in the initial survey noted a need to control the environmental impacts of the oil industry in developing ecotourism. A second participant was from an international tour operator, since no private sector contacts were recommended during 'snowballing'. Two other such tour operators declined to be interviewed. Since respondents in the initial survey had noted potential religious restrictions on tourism development (e.g. on alcohol consumption or inter-mingling of genders), a person from the organisation of Religious Endowments, a civil society organisation that manages Muslim holy sites and assets, was chosen to be interviewed.

In both surveys, the recommended contacts were screened against the eligibility described above, and informed consent was sought from those who met the criteria.

Since the interview process followed grounded theory rather than hypothesis-testing, "theoretical sampling" (Auerbach and Silverstein, 2003, p. 18) was used to choose new participants likely to refine the underlying theory about ecotourism destinations, barriers, and enablers.

23 stakeholders were interviewed in total (11 from the initial survey and 12 from the extended survey). There were three stakeholders from the civil society organisations: an environmental non-governmental organisation (NGO); Warar Development Organisation; religious (local clerk). There were nine stakeholders from the private sector: local tour operators (two); international tour operator; accommodation (hotel); oil extractor; and a vendor. There were 13 from different government agencies: institute of planning; General Board of Tourism; General Board of Investment; Duhok Governorate; General Directorate of Municipality; Directory of Archaeology; National Security Forces; Forestry and Wildlife Research Services; Health Care sector; General Board of Statistics; education sector; and Geology Department. In addition, there was one stakeholder from academia (Table 5).

Recruitment of new respondents ceased when "theoretical saturation" was reached, i.e. when there appeared to be no new information coming out of any further interviews (Auerbach and Silverstein, 2003, p. 20).

Table 5: Characteristics of stakeholders participating in semi-structured interviews

	Sector		Workshop	Interviews	
				Initial survey	Extended survey
1	**Civil society**	Environmental NGO		1	
2		Warar Development & Growth Org.		1	
3		Religious (local clerk)			1
4	**Private bodies**	Local tour operator		2	
5		International tour operator			1
6		Accommodation (hotel)			1
7		Oil Extractor			1
8		Vendor*			1
9	**Governmental agencies**	Environmental Protection Forces	1		
10		General Directorate of Environment	2		
11		General Directorate of Tourism	2		
12		Institute of Planning		1	
13		General Board of Tourism		1	
14		General Board of Investment		1	
15		Duhok Governorate		1	
16		General Directorate of Municipalities		1	
17		Directory of Archaeology		1	
18		National Security Forces			1
19		Forestry and wildlife Research service			1
20		Social welfare services			1
21		Health care sector (Ministry of Health)			1
22		General Board of Statistics			1
23		Education sector (Ministry of Education)			1
24		Geology Department			1
25	**Academia** (universities)		4	1	

* A representative of the 'Qabana' wholesaler group

5.3.2.2 Interview Protocol

The interviews were semi-structured and the questions were open-ended (Appendix 4), and informed consent was sought from all participants (via the participant information sheet and consent form in Appendix 5 and Appendix 6). In the initial survey the interviews largely took place at the respondent's workplace, while in the extended survey, interviews took place by phone or over the Skype and they were all tape-recorded (Silverman, 2000). All the records were then transcribed for subsequent analysis.

Personal information such as gender, age, occupation and qualifications was also recorded.

Interviewees were asked (Appendix 4, question 1) to define ecotourism, giving examples, to gauge their knowledge of ecotourism. Those with little prior knowledge were given further information and examples of ecotourism before moving on to subsequent questions. Participants were asked about potential ecotourism activities and specific destinations (questions 2-5) that could be developed in Kurdistan and asked to identify the attributes and level of funding for these ecotourism destinations.

Participants were asked (questions 8-13) to identify potential/stakeholders in ecotourism planning, their relationships and degree of collaboration with these other stakeholders, particularly local communities. Respondents were also asked to comment on local community capacity and power to influence local tourism development (Sofield, 2003). The term power here refers to the extent to which the local community "has or can gain access to coercive, utilitarian, or normative means, to impose its will in the relationship" concerning regional ecotourism (Mitchell et al., 1997, p. 869). The participants were also asked for their opinion about possible avenues for community environmental training. Possible concerns about foreign companies as stakeholders were specifically probed for. Participants were also asked about socio-cultural, economic and environmental impacts of ecotourism.

A section on challenges and barriers (questions 14 and 15) examined potential barriers to ecotourism development, such as security, private and public land-ownership issues and tensions between environmental managers and tourism developers.

Finally, the participants were asked to identify alternative ways to improve environmental and cultural asset management (as solutions to the challenges mentioned above), the potential contribution of their organisation, need for quality control measures and external support (questions 16-20). To close, they were asked about their preferred ecotourism sites/projects for immediate future development.

5.3.2.3 Analysis of interviews

In order to assess respondents' initial understanding of ecotourism, the degree of concordance was assessed between the participants' description of ecotourism and the ecotourism definition proposed by The International Ecotourism Society (TIES). TIES defines ecotourism as "responsible travel to **natural areas** that **conserves the environment** and **improves the well-being of local people**" (TIES, 2013b), thereby using a definition incorporating three components as highlighted in bold. The presence or absence of these three components in participants' descriptions of ecotourism was therefore noted.

The number of times different stakeholders were listed by interview respondents was tabulated, as were respondents' assessment of their inter-relationships with other stakeholders and assessment of local community capacity and power. Ecotourism destinations proposed during the interviews were mapped using the ArcGIS software. The results from other questions were analysed using coding approach, by organising the information gathered from the participants under different emergent themes (Auerbach and Silverstein, 2003).

5.3.3 Rapid Rural Appraisal

A Rapid Rural Appraisal (RRA) was carried out in three case study locations, namely Akre, Amedi, and Barzan (Figure 27). RRA is a set of field-based techniques used in the preliminary stages of a project, typically in low to middle income countries (Chambers, 1994). Two RRA techniques were used here, namely key informant interviews and direct field observation via transect walks.

These areas were selected for their ecotourism potential, but based on information from contrasting sources: Amedi and Barzan were potential ecotourism destinations discussed in the Ketso-derived workshop whilst Amedi was also proposed as an ecotourism destination by the GBT (Jaleel et al., 2012), see section 5.3.4. Akre was neither mentioned at the workshop nor in the GBT strategic plan, but known to be attracting international pilgrims to a well-known shrine, Sheik Abdul Qadir Gailani, and experiencing difficulties accommodating these visitors.

Three local community members (rangers, shrine-keepers, and farmers) were approached at each site as key informants. These meetings with key informants comprised informal interviews and open-ended discussions, broadly following the same protocol as for the semi-structured interviews with the other stakeholder groups (Table 5). These interviews were accompanied by transect walks, note-taking and field observations (Silverman, 2000).

5.3.4 Review of planning documents

As an initial step towards ecotourism development in the Kurdistan Region, new plans for 3 ecotourism projects were discussed at a workshop organised by the newly established Ecotourism Committee of the GBT. A proposal was presented at the conference to develop ecotourism in three areas (Ruste village in Erbil province, Halapja in Sulimani province, and Amedi in Duhok province) that had been selected based upon their pristine natural environment, unique landscape, traditional lifestyle among local communities, and cultural heritage (Jaleel et al., 2012). Ecotourism stakeholders listed in this document were abstracted, and both the list of stakeholders and proposed ecotourism development sites compared to those mentioned during the workshop and interviews.

5.4 Results

5.4.1 Ketso-Derived Workshop Results

Results from the Ketso-derived workshop are presented in two ways: using colours and pre-defined themes; and based on emergent themes, as explained below.

I. Colours and Pre-Defined Themes

In terms of the pre-defined themes and colours, as can be seen from Figure 31, there was a preponderance of 'goals/next steps', with many 'future possibilities/solutions' also identified by participants. In total, 184 ideas resulted from the workshop.

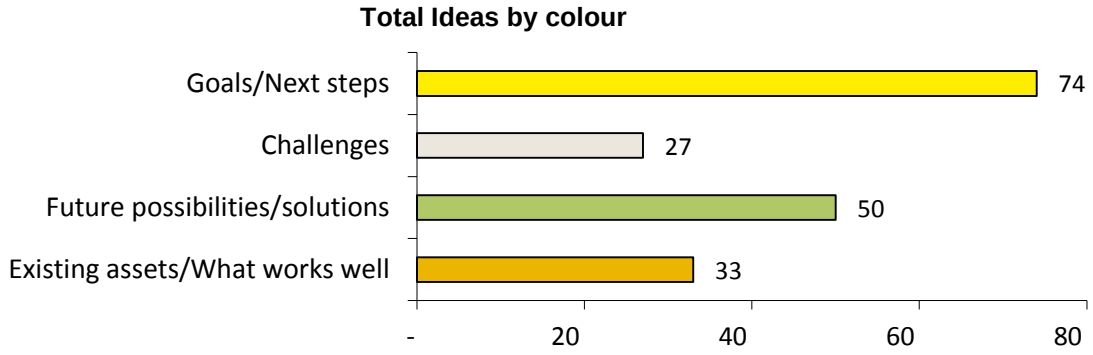


Figure 31: Total workshop ideas by colour. The total number of ideas is 184 represented on the X-axis.

As can be seen from Figure 32 showing the pre-determined themes below, the highest number of ideas was developed under the 'Activities' theme, with the fewest ideas under the 'Economics' theme. There were slightly fewer 'existing assets' and more 'key challenges' under the 'Social' theme than under 'Landscape/Ecology' or 'Environment (Built)'.

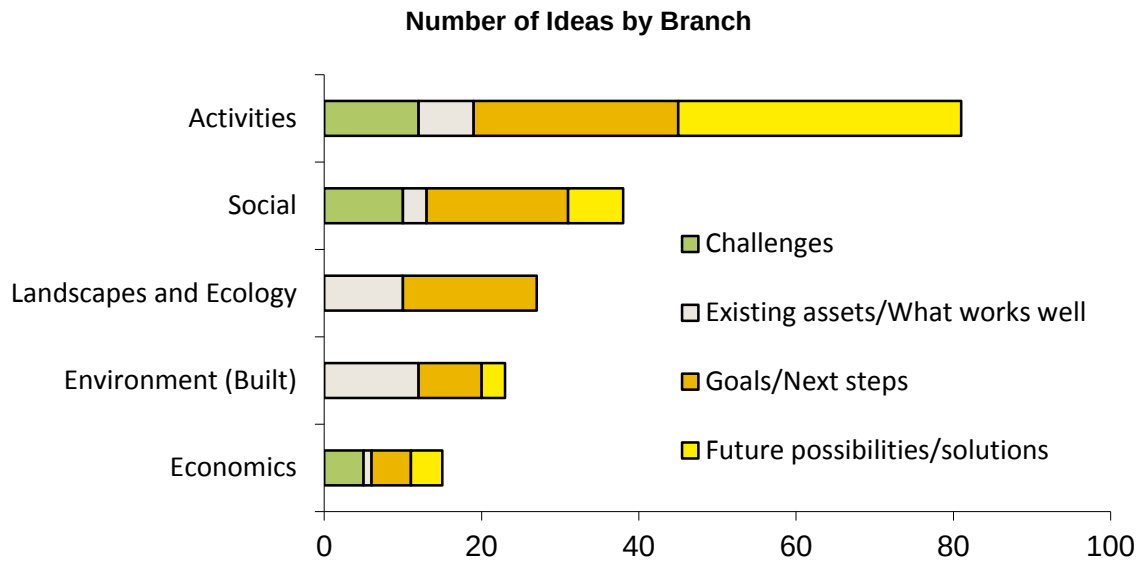


Figure 32: Number of ideas per pre-defined theme. The total number of ideas is 184 represented on the X-axis.

II. Cross-cutting Themes

Several cross-cutting themes emerged in the data analysis, as shown broken down by card colour below (Figure 33). The quotations below represent the English translation of example participant ideas.

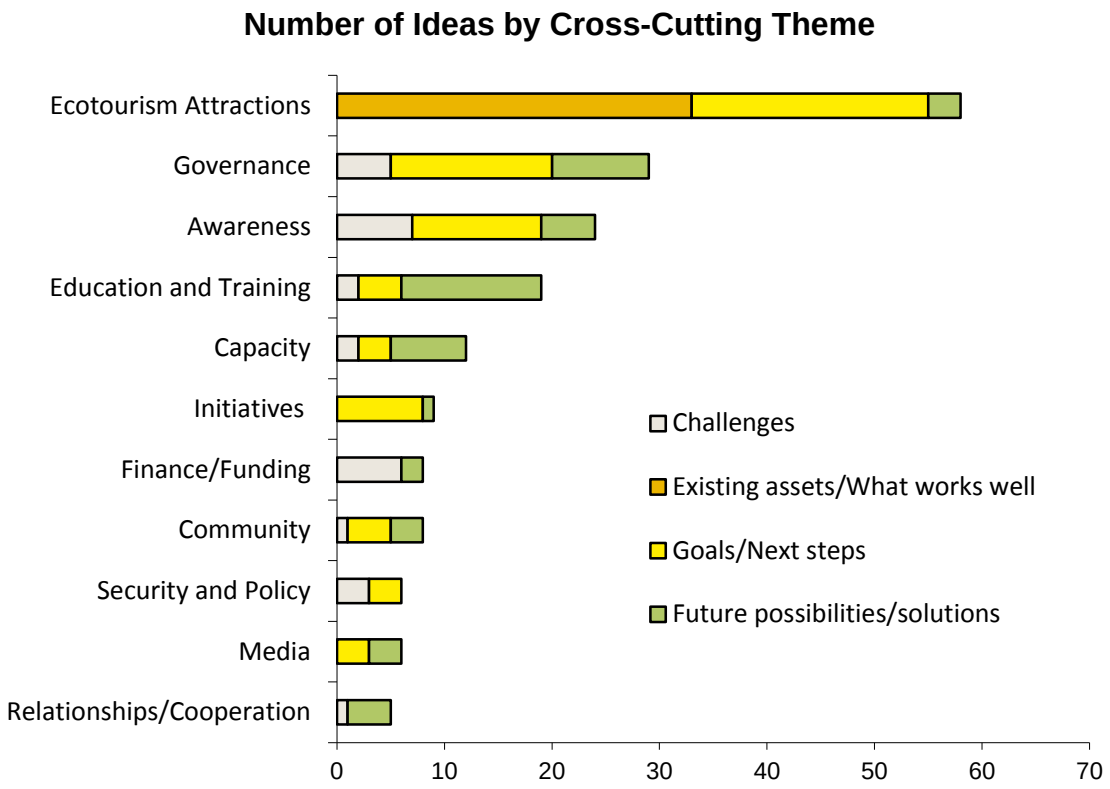


Figure 33: Number of ideas per cross-cutting theme. The total number of ideas is 184 represented on the X-axis.

The **Ecotourism attractions** theme was the largest emergent theme in the post-workshop analysis, covering 31% of ideas. The ideas in this theme included perceived attractive characteristics of the region and existing assets (the Brown Ketso colour) e.g. 'climate (four seasons)'; 'biodiversity and natural landscape'; 'customs and traditions of Kurds'; 'mountains'; 'water resources'; and 'very ancient caves and archaeological sites'. Future possibilities (the green Ketso colour) included 'building of ecological villages'; 'increasing watercourses' which are regarded as essential for flora and fauna distribution; and deciding on which areas and elements should be developed. Key next steps and actions (Yellow) included 'characterising the natural and geographical features of all sites in preparation for tourism activities, and undertaking more ecological surveys of natural areas'; proposing, planning and using 'national parks, nature reserves, archaeological sites, and special tourist cabins in villages'; practising activities such as 'mountain climbing, eco-camps, hiking, natural heritage, Kurdish culture (food and costumes), and promoting national folklore in tourism areas'. The participants did not identify any key challenges within this cross-cutting theme.

The second highest proportion of ideas (15%) fell under the cross-cutting theme of **Governance and regulation**. The 'lack of proper laws and regulation from the government' to protect the environment and the 'deficiency in implementing them', where regulations did exist, were the

main key challenges (Grey) discussed by the participants. The 'lack of necessary facilities and services' for the tourism industry and concern that 'archaeological and tourism sites are not looked after by relevant authorities' were also referred to as key problems that hinder the development of ecotourism in the region. Suggested solutions (Green) included observation of 'stricter environmental rules and regulations by the authorities' for example 'penalising and fining those who harm the environment'. To achieve ecotourism goals (Yellow), participants suggested more 'direct and understandable environmental laws and regulations'; and the necessity of having 'environmental and tourism protection forces' to protect tourist attractions. The delegates also suggested that government should limit the current rapid, unplanned urbanization.

Delegates raised another major issue of **lack of awareness** of environmental degradation on the part of some government authorities and some local people (Grey). Examples of ideas critical of the authorities were 'the weakness or lack of environmental awareness of most government executives' and that the 'rules/regulations for protecting archaeological and heritage features are ignored' by those who are responsible. The participants made several suggestions as future possibilities (Green), including 'publicising environmental awareness' and 'promoting tourism and cultural awareness' through publications and the media. Specific goals (Yellow) in the area of awareness, which could help counter these negative perceptions, were 'raising tourism awareness across the whole community' and developing 'environmental awareness among decision-makers' to enable 'understanding of ecotourism and its applications' and 'concern for archaeology and prevention of its destruction through construction work'.

Education and training were mentioned in 10% of the cards produced during discussion. The main problems (Grey) under this cross-cutting theme included 'lack of expert staff in the environmental field'. Examples of relevant future possibilities were the 'introduction of specialised environmental colleges', and 'introduction of environmental awareness into the school and university curriculum'.

Closely related was the cross-cutting theme of **Capacity** and the idea of 'putting the right person in the right place' in terms of administrative positions in government and 'appointing specialised experts as executives'. As creative solutions to the problems (Yellow), participants suggested that there was a need for 'specialist teams to discover/unearth sites'.

Afforestation and the development of affordable accommodation for tourists were noted as future possibilities (Green) under the **Initiatives** cross-cutting theme, with several other goals as solutions (Yellow) such as 'making maps of the Kurdistan region to determine features which can be used for tourism purposes' including maps of 'archaeological sites, flora and fauna distribution, water resources, and soil types'.

A few future possibilities (Green) revolved around the need to subsidise tourism and ecotourism projects under the **Finance/Funding** cross-cutting theme including 'government' and 'international' support. This was put forward as a response to concern (Grey) about 'no support from higher authorities' for tourism/ecotourism project development. It was also to address the problems of 'absence of a dedicated and suitable budget for the desired tourism projects', and to prevent the process of 'exploitation of tourism sites by individuals with physical/monetary influence'.

The local **Community** in rural areas was blamed (Grey) for 'deliberately setting fire to forests' to obtain more arable land. Future possibilities (Green) entailed addressing 'rural residents' problems'; 'developing villages and rural areas'; and enhancing 'women's role in developing ecotourism'. As a solution (Yellow) to land problems an idea was put forward to settle all land 'ownership problems' with local residents, and to 'give all the required facilities to farmers to help them use one or more room/s for tourism purposes' and to encourage 'handicrafts' and other activities in order to increase their income'; and lastly 'create voluntary services to protect the environment'.

Security and Policy issues were also discussed during the workshop. It was agreed that security problems (Grey) were restricted to the Turkish and Iranian borders where there were 'political problems', 'military forces', and the existence of landmines in some areas. Related goals (Yellow) included 'landmine clearance' and political dialogue to improve security.

A role was foreseen for the **Media** to 'spread awareness' of the environment and ecotourism under future possibilities (Green), 'by publicising archaeological and tourism information'.

Under the **Relationships/Cooperation** theme, the 'prevalence of non-specialists' within the tourism industry who lack specialist knowledge within this sector was put forward as a key challenge (Grey) in ecotourism development. There was an agreement that 'organisations working in environmental fields should be given wider roles' so they can influence decision making regarding local environmental issues; similarly 'activating NGOs' role in environmental awareness'; increasing 'coordination with civil society organisations'; and 'strengthening the relationships between authorities with responsibility for archaeology, municipalities and agriculture'.

Figure 34 shows the locations of ecotourism destinations proposed during the workshop and interviews, alongside the locations of the three ecotourism development sites proposed by the GBT. All three ecotourism destinations proposed by the GBT were also mentioned by at least one workshop participant and/or interview respondent. Figure 34 suggests that the participants, particularly those from the workshop, avoided locating potential ecotourism destinations in the

border region between the Kurdish autonomous region and the rest of Iraq, an area currently disputed by both parties.

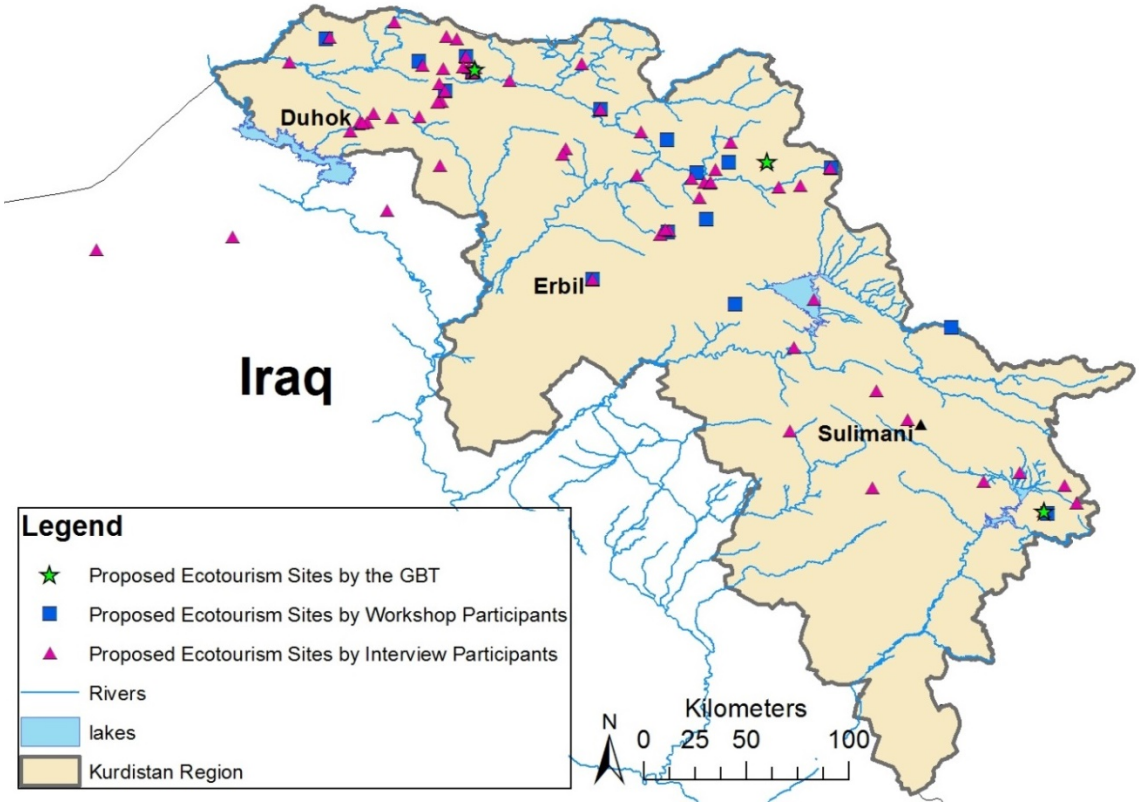


Figure 34: Ecotourism destinations suggested by workshop delegates and interview participants, compared to those proposed by the General Board of Tourism (GBT)

5.4.2 Interview Results

In the following section, the views of interview and RRA (local community) participants are presented together. Initial interview participants are coded as P1, P2, etc.; extended interview participants are coded as E1, E2, etc., whilst local community respondents are coded as L1, L2, and L3.

Figure 35 shows the concordance between the participants' initial understanding of ecotourism and the TIES definition. Only three participants listed all three elements of the TIES definition, with the majority (15 participants) listing two elements and omitting the need for 'benefit-sharing with local communities'. A few (six participants) only mentioned one element of the ecotourism definition of being done within 'natural areas', and a local community member was unfamiliar with the term.

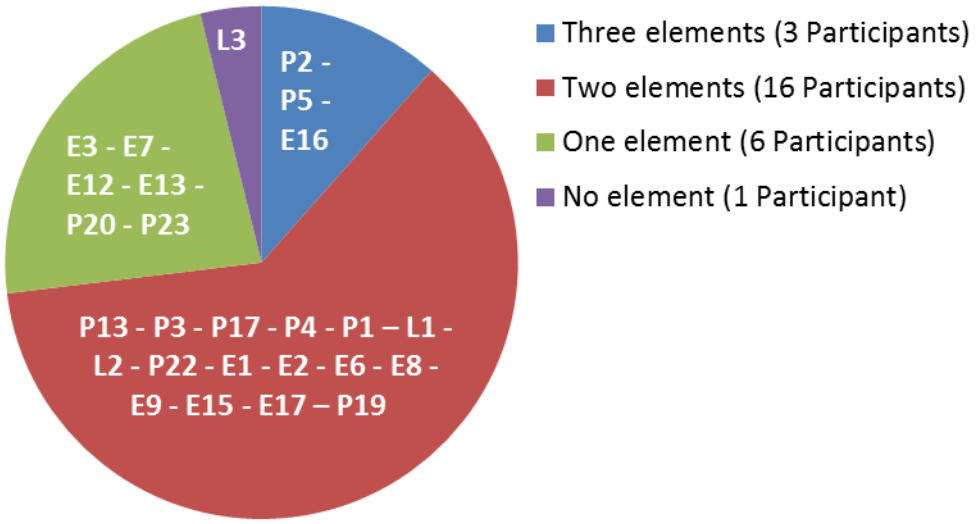


Figure 35: Concordance between the TIES ecotourism definition and participants' interpretation of ecotourism. Participants are coded as [P]= initial interviews, [E]= extended interviews, and [L]= local community members (RRA)

5.4.2.1 Stakeholders

Table 6 shows the number of times different organisations or groups were described as stakeholders during the interviews, alongside the stakeholders listed in the GBT report by (Jaleel et al., 2012). 'Local community' was mentioned by 10 participants, including an RRA participant and by the GBT, but while the Board of Investment was nominated by the GBT it was mentioned by just one participant. The media was listed as a stakeholder by three participants, but not by the GBT. Similarly, the Ministry of Religious Endowments was considered as stakeholder by the GBT, but not mentioned by any respondent. The GBT showed a more detailed knowledge of government structure than the interview respondents. In the initial survey the local community accumulated only five votes coming fourth after Government (eight votes), Ministry of Higher Education [MHE] and NGOs (seven votes each). However, after including the results from the extended survey, the number of votes for local community doubled (10 votes), placing it first, whilst the MHE and NGOs each only obtained one more vote with the government gaining no new votes.

Table 6: Organisations listed as stakeholders by 23 interview participants and 3 local community members (RRA), compared with ecotourism stakeholders listed by the GBT (Jaleel et al., 2012)

	Stakeholders	Number of times mentioned by the correspondents	Ecotourism stakeholders set by the GBT
1	Local community	9 + 1*	gbt
2	Ministry of Higher Education (Universities)	7 + 1*	gbt
3	NGOs	7 + 1*	gbt
4	Government	7 + 1*	
5	Tourism companies (tour operators)	7	gbt
6	Ministry of Municipalities and Tourism (GBT)	6	gbt
7	Private Business contractors (including foreigners)	5+1*	
8	Ministry of Archaeology (archaeology department)	5	gbt
9	Media information	3	
10	Investors	3	
11	National Security Forces	3	
12	Hotels and restaurants	3	
13	Ministry of Health	3	gbt
14	Ministry of Agriculture	2	gbt
15	General Directory of Environment	2	
16	Board of Investment	1	gbt
17	Ministry of Education	1	gbt
18	KRG's Consulates abroad	1	
19	Centres of Growth & Development	1	
20	Environmental Protection Forces	1	
21	Political parties (PDK)	1	
22	Wildlife Protection Organisations	1	
23	Environmental scientists	1	
24	Policy makers	1	
25	Bus drivers	1	
26	Immigration Office, Security check points	1	
27	Photographers, musicians	1	
28	Ministry of Statistics	1	
29	Ministry of Planning	1	
30	Ministry of Natural Resources	1	
31	Transportation sector	1	
32	Oil companies	1	
33	Police	1	
34	Tourists	1	
35	Ministry of Environment		gbt
36	Ministry of Religious Endowments		gbt
37	Ministry of Culture and Youth		gbt

*: indicates local community members interviewed (RRA)

gbt: indicates the General Board of Tourism

5.4.2.2 Relationships among Different Stakeholders and with Local Communities:

Figure 36 shows the self-reported nature of relationships between ecotourism stakeholders. Most reported relationships between different ecotourism stakeholders were limited with fewer stated as good and the rest stated as relationships were non-existent. While their relationships with local communities were mostly reported to be either limited or non-existent.

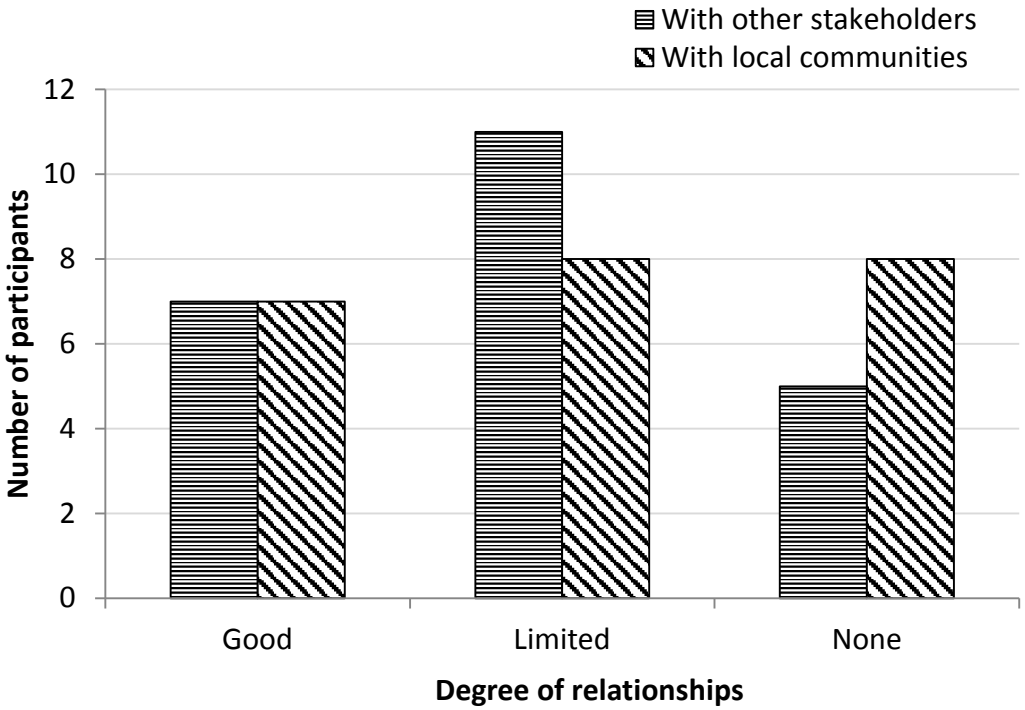


Figure 36: Perceived degree of relationships between interview participants, other stakeholders and local communities (n=23)

5.4.2.3 Perceived Community Capacity for Ecotourism

The respondents expressed their opinion as to whether local communities have the capacity and power to influence ecotourism development in their areas. Only around half of them felt that the community has capacity for managing ecotourism (Figure 37) and more than half of them felt that the local communities have power to influence ecotourism development (Figure 38). However, some respondents believed that either the capacity, power, or both were limited and needed further support. The RRA respondents themselves felt community members had some capacity and power, and also suggested further help from the government.

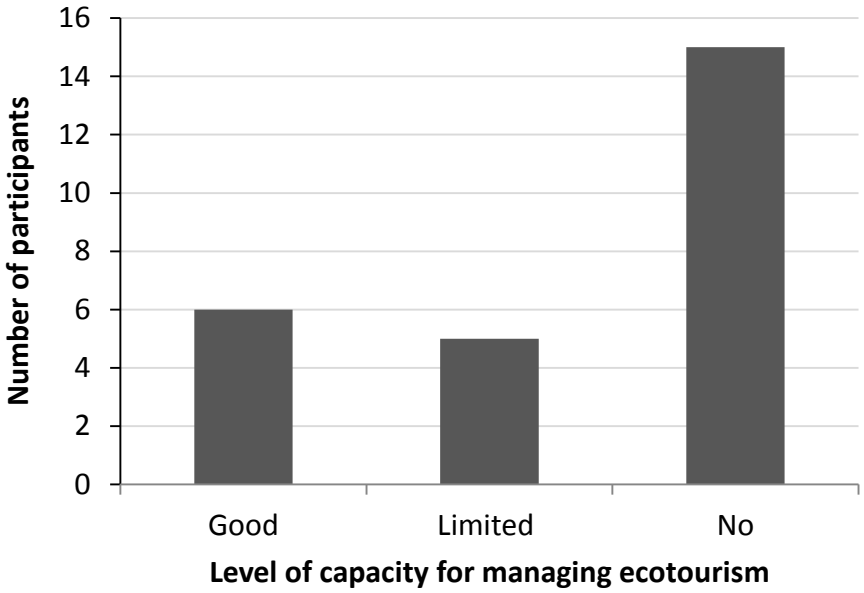


Figure 37: Participants' opinions regarding local communities' capacity to influence ecotourism development [based on responses by 23 interview participants and 3 local community members (RRA)]

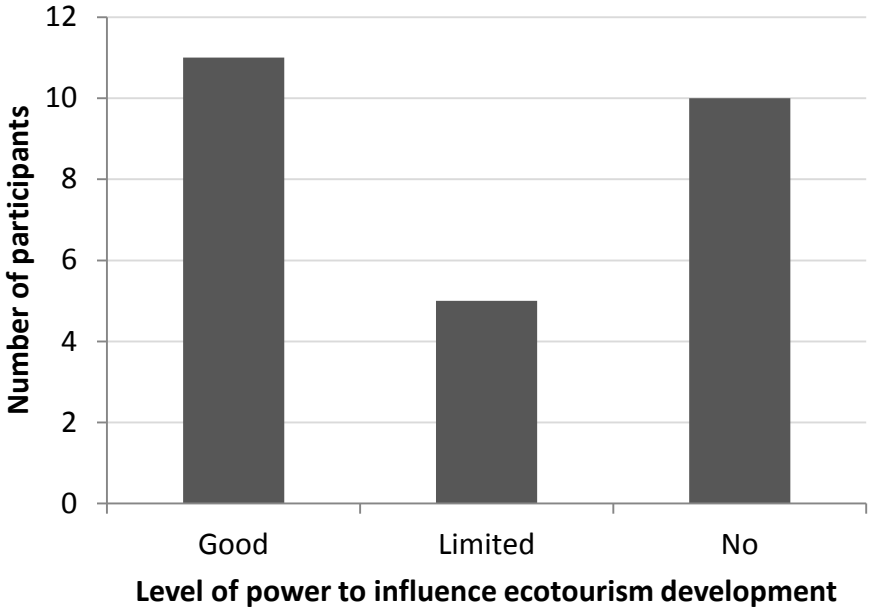


Figure 38: Participants' opinions regarding local communities' power to influence ecotourism development [based on responses by 23 interview participants and 3 local community members (RRA)]

5.4.2.4 Ecotourism Destinations, Activities and Funding

In general, the participants characterised a suitable ecotourism destination to be linked to history, archaeology, natural and cultural heritage and economic incentives for local communities. Although the range of responses generally shows awareness of ecotourism concepts, because it extends beyond natural resources, some suggestions (e.g. skiing, parachuting, shooting, and fishing) were inconsistent with ecotourism tenets.

In addition, responses referred to both inappropriate management and insufficient government funding to develop tourism in these destinations, noting the higher priority given to other areas such as water, electricity, roads, education, health, etc. The RRA respondents particularly criticised the government for its lack of support for rural areas in comparison with urban areas.

5.4.2.5 Key Challenges

The responses concerning the key challenges to ecotourism in Kurdistan were focused on government mismanagement, such as decision-making by institutional heads rather than through consensus or voting by the relevant committees. There was also repeated reference to the lack of an integrated framework for tourism planning and lack of awareness among the population (Table 7).

Almost all respondents considered that ecotourism would positively impact the environment, except for one tour operator participant who considered its effects to be mixed. In some instances, there were caveats: an RRA participant stated that “ecotourism will still favourably affect socio-cultural aspects of local communities if it is practiced within bounds of Islamic Sharia (law), i.e. away from inter-mingling of genders, alcohol consumption, and sexual mores”.

Table 7: Barriers to ecotourism in Kurdistan listed by 23 interview participants and 3 local community members (RRA)

Thematic Area	Participant Responses
Ecotourism Attractions	Uncontrolled urban expansion and lack of aesthetic infrastructure
	Prioritisation of investment in building construction over investment in the environment
	Destruction of natural and cultural resources suitable for ecotourism
	Need for restoration of historic sites and buildings
	Under-developed regional infrastructure
	Lack of low-cost, decent, accommodation, particularly for overseas visitors *
	Lack of Automated Teller Machines (ATMs)
Governance	The dominance of personal decision-making by the authorities, in a bureaucratic setting, rather than institutional
	Lack of an integrated tourism planning framework (no tourism master plan)
	Lack of suitably experienced / qualified staff in key government posts
	Lack of a regulatory framework for controlling new development, e.g. environmental impacts of the petroleum industry
	The government does not look after the holy places at all *
	Prioritisation of urban development over rural development and public services that would slow rural out-migration
	The KRG and the environmental agencies only look after places where mass tourism take place without considering environmentally sensitive places
	No support for environmental organisations
	A partial and unfair taxation system
	Lack of statistics (e.g. number of shops)
Capacity (environmental awareness)	Unpredictable and volatile political environment
	Lack of environmental awareness among the general public and rural communities who are also undereducated
	Lack of consideration for public services by visitors
	It will take time for local communities to absorb ecotourism and well accepted in their communities.
	Religion negatively affects tourism by e.g. restriction on alcohol consumption
	Forest and bush fires due to ignorance and sometimes to obtain arable lands
	Traffic accidents
Education and Training	Lack of scientific and social baseline surveys
	Some local community may consider some tourism activities to be incompatible with their tribal traditions and religious believes
	Conservative attitudes inhibit uptake of new activities such as ecotourism
	Limited tourism-related education and Lack of understanding of ecotourism
Experience	Lack of government and other sector experience in environmental management and tourism
	Limited experience of international travel on the part of the Kurdish public and stakeholders and limited experience of tourism and ecotourism
Finance/ Funding	Tourism remains low government funding priority, e.g. lack of government loans for tourism/ecotourism projects
	Tourism operators focus on outbound rather than inbound tourism
	Reluctant of local people to give their land for public use (fencing lands)
	Perceived riskiness of Kurdistan to local and foreign investors
	Lack of logistic and financial support for farmers
Security and Policy	Safety and security issues in the broader region (e.g. landmines existence and existence of Turkish army), particularly on the borders between Kurdistan-Iran and Kurdistan-Turkey. Usually fights between the Turkish army the PKK lead to fires in forests. The conflict between

	the main Kurdish parties between 1994-97 caused the evacuation of 400 villages, and only 20% of villagers returned after the conflict had ceased. Some villages, such as Bare Gara and Nerwa u Rekan are still deserted*
	The unstable political situations between Kurdistan and other neighbouring countries such as Turkey, Iran, and some Arabic countries
	Internal conflicts and disagreements between political parties which affect on the government structure and decision-making away from consensus
Media	Lack of marketing capacity to promote the region's natural and cultural resources
Relationships	Lack of co-operation between stakeholders
	Failure to engage with local communities

*: indicates comments by the local community members interviewed (RRA)

5.4.2.6 Solutions (next steps/reflections)

Potential ecotourism solutions proposed by interview participants are shown in Table 8. The responses here were focused on the role of the government through, firstly, imposing strict laws, rules and regulations on society and, secondly,: providing loans to investors to develop tourism and ecotourism projects. In addition, the responses also frequently referred to promoting environmental awareness across all stakeholder groups through training courses arranged by the government. It is also apparent that only one participant referred to the importance of encouraging community-based tourism projects.

All participants emphasised that ecotourism development should be accompanied by appropriate regulatory oversight and monitoring to consolidate the investment in ecotourism, which neither exists now nor when the interviews took place. Such measures would control the kind of tourism activities performed, where they are performed, and how they are performed. A participant emphasised that tour companies would need to be regulated and monitored for quality and that "it would make sense of an outside body to ensure that only a limited number of groups are at a site at any one time, to stop the awful over-crowding by tourists that is found in Egypt and Greece". The participants also stated that there was a need for foreign support and experience to develop tourism and ecotourism in the region.

Table 8: Solutions to barriers facing ecotourism development in Kurdistan listed by 23 interview participants and 3 local community members (RRA)

Thematic Area	Participant Responses
Ecotourism Attractions	Baseline biodiversity surveys prior to development, and gazetting of areas of conservation importance
	Passing of new regulations for tourism destinations, e.g. in hotels, where staff should wear Kurdish traditional costumes and serve Kurdish traditional food.
	Developing tourism activities such as trekking, skiing, and volunteer-tourism
Governance	Development of strategic tourism plans for the region
	Government incentives for companies to engage in inbound tourism
	Taking the initiative steps to develop ecotourism, e.g. having specific destinations for ecotourism activities
	Greater enforcement of environmental regulations such as the context exists in Barzan Area, where poaching wildlife is strictly prohibited by the head of the clan*
	Activating the role of environmental NGOs through their participation in decision-making related to the environment issues
	Provide employment opportunities for tourism experts
Education and Training	Introduction of ecotourism into the school and university curriculum
	Capacity building for people regarding environment and tourism
	Use of hotels and restaurants as training facilities for catering and hospitality students, and creation of student organisations focussed on ecotourism
Experience	Develop ecotourism as a subsequent specialist sector, having first gained experience in conventional tourism
	Building more experience for people working in tourism/ecotourism fields
Initiatives	Developing a policy framework to promote ecotourism
	Internet services (e.g. tourism guides, hotel online booking, etc.)
	Conducting comprehensive census
	Conducting ecotourism pilot projects
Finance/ Funding	Incentives for investment in tourist facilities, e.g. traditional restaurants, hotels, etc.
	Incentives for foreign investment in ecotourism in the region
	Following an initiative of the GBT in Erbil, development of a loan facility for tourism/ecotourism projects
Community	Training programs, workshops, and courses to develop awareness and relevant skills among local communities
	Creating civil society organisations which can be in direct contact with local communities to address their issues
	Promotion of local community participation in ecotourism development by the KRG
	Compensate local communities sufficiently and in a long-term when using their land as touristic destinations
	Encourage smaller non-governmental (community) tourist business - eliminate monopolisation
	Enhance understanding between the government and the local communities
Media	Strengthen marketing of ecotourism in Kurdistan via different media
Relationships	Involvement and cooperation of all stakeholders.
	Informing the Institute of Planning of new initiative within the ecotourism sector so they can act as a co-ordinating institution for ecotourism development
	Promotion of ecotourism via KRG representatives abroad, e.g. cultural attaches
	Getting other countries' representatives to visit Kurdistan, by inviting them
	Promotion of visits to the region's natural and cultural attractions for those attending conferences and other events

* : indicates comments by the local community members interviewed (RRA)

5.4.2.7 Potential Contribution

Table 9 shows the potential contribution that respondents believed they could make to ecotourism. Proposed contributions varied but included environmental awareness-raising, public education and providing investment opportunities in the tourism sector. However, some responses, such as forced displacement of residents who do not follow government's instructions on housing materials and appearance and traditional lifestyles, are inconsistent with ecotourism principles.

Table 9: Potential contribution, expressed by 23 interview participants and 3 local community members (RRA), to develop ecotourism in Kurdistan

Thematic Area	Participant Responses
Monitoring and information systems	Conducting a comprehensive census
	Surveys have been undertaken in 30-40 tourism attractions around Amedi
	Providing information (data) required to develop ecotourism.
	Conducting geological surveys in different sites
Governance	Appointing the right people to work for ecotourism in terms of planning and management
Awareness raising	Organising and celebrating traditional festivals
	Building environmental awareness throughout the population via NGOs
	Raise public awareness through religious preaching
Education and Training	Providing training courses about Tourism development and management
	Set programmes to educate people and develop capacity building, including government staff and local community members
	University training programmes (undergraduate, postgraduate)
	Universities can publish papers (research) to address problems affecting communities
	Eliminate illiteracy
Initiatives	Developing adventure tourism and agricultural tourism alongside ecotourism
	Plans to make tourism a 3% share in the region's economy by increasing the number of international tourists visiting the region by 2015
	Developing tourism places whilst preserving their sanctity as well as their historical and heritage value
	Working with overseas companies (e.g. Turkish and Russian) to develop tourism and ecotourism destinations
	Already sketched two master plans to develop tourism for: Duhok Water Dam and Zawa Mountain
	Fencing off protected areas, by implementing fortress conservation
	Developing and promoting Religious Tourism *
	Road network upgrading to/from tourism destinations
Finance/ Funding	Opening Tourism Bank to lend money for tourism projects
	Creating investment opportunities for local and international companies
Community	Compensating local communities for government acquisition of their lands for ecotourism projects
	Obliging local people to follow government's instructions, on housing materials and appearance and traditional lifestyles, which intend to implement ecotourism or otherwise displacing them
Relationships	Contributing with other tourism stakeholders, including local communities, in the process of decision making and developing ecotourism
Security	Provide security specifically for tourists

*: indicates comments by the local community members interviewed (RRA)

5.5 Discussion

This is the first study of ecotourism stakeholders in the Kurdistan Region of Iraq. Despite initial steps to develop ecotourism by the KRG and the NGO Nature Iraq, there remains no published research on ecotourism in the region. The KRG has recently attempted to implement ecotourism as part of broader tourism planning in the region. The KRG has already categorised tourism in the region into 12 categories of which ecotourism is one (GBT, 2013c), and it has already selected Ruste village to develop the first ecotourism projects in the region. Also there is a proposal to develop Sakran village as an ecotourism destination. At the same time, the NGO Nature Iraq built an eco-camp (NI, 2013), the first of its kind in the region (see section 4.3). Currently, all of this activity is taking place in the absence of any published under-pinning research. Across greater Kurdistan, which includes parts of Iran, Turkey and Syria, work in Kurdish Iran has focussed on delineating zones for ecotourism planning (Farajzadeh and Karimpanah, 2008), and evaluating cultural and historical sites for ecotourism purposes (Kermani et al., 2009), but none analysed stakeholder views and relationships and all that took place in areas with no recent history of political conflict. Within a post-war setting this study, therefore, aimed to address the absence of research work underpinning ecotourism development initiatives.

5.5.1 Level of Understanding of Ecotourism

This survey suggested a lack of knowledge of the internationally accepted concept of ecotourism (TIES, 2013b) on the part of some participants. Therefore, there is a possibility that the answers given by some respondents (e.g. proposed ecotourism destinations and activities and/or defining other ecotourism stakeholders through the 'snowballing' process) were affected by their lack of understanding of ecotourism. Some responses illustrate this issue: first, two interview respondents suggested fencing off some areas designated for tourism projects by the KRG, thereby implementing "fortress conservation" (Siurua, 2006a, p. 73); second, one interview respondent revealed the KRG's plans to either relocate the population of Sakran village or oblige those who remained to strictly follow GBT instructions on housing material and appearance and lifestyles, should the village developed as an ecotourism destination; third, some participants mistakenly appeared to describe activities such as skiing, parachuting, and shooting as though they were typical ecotourism activities. In contrast, only a few of the respondents specified bird-watching as an ecotourism activity (Hvenegaard, 2002); and more importantly, fourth, while local community engagement is considered an important component of ecotourism (Goodwin, 1996; Garrod, 2003a; Gurung and Scholz, 2008) it was seldom referred to by the respondents.

In Kurdistan, it seems likely that decades of wars and political unrest have drawn attention away from environmental concerns and led to a lack of knowledge about the environment and tourism including ecotourism. The same difficulties affected Lebanon after the Lebanese Civil War (1975-1990) ended (Issa and Altinay, 2006). These problems may be even more pronounced for Kurds who lacked a well-developed tourism industry and environmental interests before the period of conflict. However, with more time people's understanding regarding environmental issues and ecotourism may increase. The difference between some of the results obtained from the initial and extended surveys may signify this, since more participants considered the local community as an ecotourism stakeholder in the extended survey, two years after the initial consultation exercise (see section 5.4.2.1).

5.5.2 Potential Ecotourism Activities and Destinations in the Kurdistan Region

The potential ecotourism areas proposed by the participants seemed generally consistent with natural and cultural characteristics of ecotourism being historical sites, pristine natural areas with abundant wildlife, and/or places with distinctive local cultural heritage. The destinations proposed for ecotourism development by the KRG, as mentioned in section 5.3.4, were also proposed by some workshop and interview participants (Figure 34). It is also apparent from Figure 34 that three proposed destinations, one to the north of Mosul and the other one just near Tall'Afar were located within the disputed territories of Northern Iraq. These regions are defined by article 140 of the Constitution of Iraq as being Arabised during the previous Saddam Regime and the Baath Party ruling Iraq. These regions have, therefore, been categorised as disputed since the US-led invasion of Iraq in 2003 and the subsequent political restructuring (Bartu, 2010). Although the maps used at the workshop and during interviews included the disputed areas within the boundary of the Kurdistan region, these areas seem to have been avoided by respondents when proposing destinations.

Figure 34 shows that the potential ecotourism destinations suggested by the interview participants are more evenly distributed throughout Kurdistan than the destinations suggested by the workshop participants. It seems likely that since workshop delegates were mostly drawn from the Duhok area with only 2 from Erbil and 1 from Sulimani province, their proposed destinations are more clustered around Duhok and Erbil (Figure 30).

5.5.3 Challenges and barriers to Ecotourism in the Kurdistan Region

The section on key challenges was generally the most animated part of the workshop and interviews. The main challenges referred to by the participants were related to the inter-related themes of governance, funding and environmental awareness.

The participants particularly focused on shortcomings in governance and political obstacles that inhibit the development of public sector services (Table 7). Such challenges, according to the respondents, existed due to a lack of accountability and transparency in government planning and the dominance of decision-makers' self-interest rather than public interests. Similar political and administrative obstacles were referred to as "ego-driven politics" in the text by Yasarata et al. (2010, p. 354) when investigating the politics of sustainable tourism development in post-conflict North Cyprus. Yasarata et al. concluded that the politicians and government decision-makers used public resources as an instrument for their and their parties' political interests, which as a result constrained the formulation and implementation of sustainable tourism development. According to Causevic and Lynch (2013), it is very difficult to achieve economic development in settings where administrative and constitutional support are missing. In addition, government effectiveness in tourism planning was seen as undermined by a lack of staff capacity and experience, with some participants referring to the concept of the 'wrong person in the wrong position' during both the workshop and interviews. In other words, government staff are reportedly appointed on the basis of affiliation to the dominant political parties rather than on experience and background, a situation also reported for tourism development in Bosnia and Herzegovina following the 1992-95 conflict (Causevic and Lynch, 2013). Related to this, the lack of cooperation between different government sectors, ineffective environmental protection, and failure to implement regulations were other important problems highlighted by the participants. Such problems, according to Elliot (1997) and Alipour and Kilic (2005), are considered common in other politically unstable countries where tourism planning is a low priority for government in terms of post-conflict economic recovery.

From both workshops and interviews, criticisms were raised regarding the insufficient budget allocation for tourism projects by government. For example, the lack of government loans for tourism projects was mentioned on more than one occasion. This might be because tourism is a lower priority than other sectors such as health and education, as suggested by some interview respondents. It may also stem from lack of awareness of the economic potential of the tourism sector and also the low priority of rural as opposed to urban development initiatives (Honey, 2008) and the dominance of the Iraqi oil sector which generates about 95% of foreign exchange

earnings (Sanford, 2003). However, some participants admitted that there was already budget allocated by government for such projects but these funds lacked spending plans.

Despite these criticisms by the research participants, financial support for the tourism sector from government has increased in recent years (Rwsty, 2013a). One reason for this recent government support for tourism could be because Erbil city was elected Capital of Arab Tourism for the year 2014 (see section 1.3) and thus the KRG, through such activities, is trying to improve Kurdistan's reputation for prospective international visitors. In addition, the KRG's political agenda is to demonstrate the economic benefits of its autonomous status, relative to other parts of Iraq (USAID, 2008).

It was stated by two of the interviewees that 'religion negatively affects tourism development in the region'. This may reflect participants' limited understanding of ecotourism, since, for example, visiting shrines and pilgrimage can be a form of sustainable tourism (Kayali, 2012). However, it may be that secular respondents were concerned that Islamic strictures on some leisure and entertainment activities such as some music, some forms of dance, inter-mingling of genders, alcohol consumption, and sexual mores could inhibit international tourism. Apart from alcohol consumption and prostitution, the Islamic religio-legal perspective on other activities such as music, song and some sports remains highly debated by Muslim scholars (Al-Atawneh, 2012).

Two further barriers to ecotourism, namely lack of environmental awareness and a lack of working relationships between stakeholders, are discussed in greater detail below.

5.5.4 Post-conflict ecotourism development

Iraq has recently come through a long period of war and is still affected by internal unrest and regional political instability. The insecurity caused by the conflict between the main Kurdish parties, namely the Kurdistan Democratic Party (PDK), Patriotic Union of Kurdistan (PUK) and the Kurdistan Worker Party (PKK), between 1994 and 1997 caused the evacuation of about 400 villages near the battlefronts, where villagers fled to towns and cities. Even after the conflict ceased in 1997, after the intervention of the Turkish army who entered the Kurdistan region in that year (Fawcett and Tanner, 2002), only about 20% of rural residents returned to their villages thereafter, while villages such as Bare Gara and Nerwa u Rekan are still deserted (Table 7). It is therefore not surprising that security matters, such as regional political instability and the existence of landmines and military forces on the international borders between the Kurdistan region and neighbouring countries (Turkey, Iran, and Syria) were debated during both workshop

and interviews. However, no participants had any solutions to these challenges, which perhaps were seen as requiring higher level political intervention.

Some participants suggested continued conflict between the Turkish army and the separatist guerrillas of the Kurdistan Workers Party (PKK), sheltering within Iraqi Kurdistan, (Asharq-Alawsat, 2010) has negatively affected tourism activities in these border areas, specifically during special occasions and celebrations, such as Nawruz day on 21st March each year, when most tourists are present in these areas (Al-hadath, 2012). This is particularly because of the deliberate burning of forests as a counter-insurgency measure by the Turkish army (Kurdish-Globe, 2009).

Furthermore, the impediments to tourism development due to the conflicts and disagreement between political parties in the region can be compared to the post-conflict cases of Bosnia and Herzegovina (Causevic and Lynch, 2013) and Northern Cyprus (Yasarata et al., 2010). In the last two cases tourism development was delayed due to the absence of political consensus under a fragmented government system. In such settings, economic development, including ecotourism, falls short.

5.5.5 Local Community and Environmental Awareness

The workshop and interviews revealed that participants felt the Kurdish public had little awareness of environmental issues, or of sustainable development. This was also identified as an issue in post-conflict Lebanon (Shackley, 2004), suggesting that environment and heritage may often be low priorities in such recovering economies. Anthropogenic forest and grass fires frequently occur on mountains in the Kurdistan region as land is cleared for arboriculture, especially during the hot and dry seasons of summer and autumn (van Etten et al., 2008), supporting the assertion that the rural public see the environment as a low priority.

Participants made several suggestions to improve environmental awareness, including the idea that environmental studies should be incorporated as a core subject into all educational levels to raise environmental awareness among youth, with eventual awareness-raising in all age groups as a consequence. In this regard, the KRG has recently organised a conference on the government's intention to introduce environmental subjects into the school curriculum, as was broadcasted on 12th December 2013 on a local TV channel (NRT-TV). Findings by Altinay et al. (2007), examining sustainable tourism development in Jamaica, support the notion that environmental awareness among the public may increase with tourism development as the latter is often accompanied by training programmes. There was a high level of consensus among interview participants that

there was need for outside support to build capacity among local government agencies and private companies to develop tourism and ecotourism in the region. In this regard Tosun (2001) also highlighted the importance of the collaboration of international agencies (such as International Tour Operators, United Nations, World Bank, etc.) with governments, in developing countries [under which grouping Iraq and the Kurdistan region fall as an upper middle income country (World-Bank, 2013)], to implement the principles of sustainable tourism development.

Furthermore, it was also suggested that the government could provide facilities for rural communities which would help them develop ecotourism businesses in their homes, by renting rooms to tourists or selling handicrafts, following similar models in Turkey (Tosun, 2001). This in turn could reduce burning of forests, and encourage preservation of cultural traditions, while promoting environmental awareness among locals and their participation in planning and managing ecotourism (Garrod, 2003a).

5.5.6 Ecotourism Stakeholders and their Inter-relationships

There was inconsistency in the way interview respondents identified ecotourism stakeholders. For example, people mentioned the involvement of investors in ecotourism planning but did not subsequently list investors as potential stakeholders in ecotourism. The same was true about media, as the role of local media was mentioned by the participants as being important for awareness-raising, yet none of the participants referred to the media as a stakeholder. This limited ecotourism knowledge among some participants could have impacted on the 'snowball sampling' (see section 8.4). Similarly, whilst tourism companies are considered important stakeholders in the ecotourism industry (Black and Crabtree, 2007) none of the participants recommended any private tour operators for the 'snowball' process, suggesting a lack of engagement with the private sector on the part of government and universities.

Also noticeable was that research participants expected the Kurdistan Regional Government to be the key player in developing the tourism/ecotourism industry through, for example, providing loans for ecotourism projects and providing ecotourism services and facilities. At the same time, there was dissatisfaction with the very personal decision-making government structure. The nature of government support for ecotourism varies internationally and over time (Wight, 2002). However, this is consistent with tourism development in the post-war context of North Cyprus where government, including tourism development, is highly centralised and decision-making is typically conducted with very little consultation and transparency (Yasarata et al., 2010). However, in many other regions, such as Alberta, Canada, the government does not directly

finance ecotourism projects, but rather its role is to inform, assist and support the tourism industry in partnership with the private sector (Wight, 2002). The perceived importance of the state in Kurdish ecotourism could be related to the absence of a well-developed private sector, which has been described in some other developing countries, where government has had to taking a leading role in tourism development. In such settings the government "undertake an entrepreneurial role to ensure that pioneer activities are initiated" (Jenkins and Henry, 1982, p. 224). In addition, the Iraqi population have lived under dictatorship for decades and have become accustomed to a centralised governance system, where decisions are made by a few people working in key positions (Farouk-Sluglett, 2001). This may explain why government is perceived as the key driver of ecotourism, despite post-war efforts to move Iraq towards decentralised government (Brinkerhoff and Mayfield, 2005; UN-Habitat, 2011). However, in such situations there is a risk that there will be a change of tourism management plans with each change of government, which leads to even greater barriers to the development of the tourism industry (Hall and Jenkins, 2004).

Workshop and interview participants, particularly the latter, pointed out a lack of cooperation between stakeholders. Such a lack of inter-sectorial co-ordination was also reported in post-war Lebanon, reflecting the diverse interests and uneven distribution of power among different stakeholder groups (Issa and Altinay, 2006). This experience suggests that most stakeholders typically restrict themselves to their own narrow sectorial responsibilities, e.g. road construction, education, business, etc. As one local government participant commented: "actually we have not thought about dealing with other stakeholders regarding tourism development at all, but it is a good idea to do that". The lack of cooperation may also result from insufficiently clear delineation of responsibilities between governmental organisations, as some participants suggested and as studies elsewhere have reported. Maak (2007, p. 340) for example, argued that social relationships between different stakeholders, in general, are formed and maintained by the corporate leaders through having "trustful relationships to all relevant stakeholders of an organisation in order to achieve responsible change".

In the initial survey, the participants noted the apparent lack of a tourism development master plan. However, subsequent to the workshop and initiative survey interviews, a tourism master plan was located, which had been produced by the GBT for the region but was yet to be deployed (KRG, 2013e). Cooperation between multi-stakeholders is considered an important element of the development of such a master plan (Timothy, 1998), so the respondents' apparent lack of awareness of this document may reflect the apparent lack of a co-ordinating framework and patchy relationships between different stakeholders. Their lack of awareness may also reflect the rapid economic growth and pace of new development in the region relative to other parts of Iraq,

with participants struggling to keep abreast of a rapidly changing socio-economic and policy environment.

5.5.7 Local Community Partnership in Ecotourism

Relevant literature suggests the local community is an important stakeholder in the ecotourism industry (Coria and Calfucura, 2012; Stronza and Gordillo, 2008; Blangy and Mehta, 2006; Lu and Bao, 2004) and their involvement in ecotourism planning and development is an essential component of bona fide ecotourism (Lu and Bao, 2004). If local people's concerns are not considered, sustainable development and hence plans to develop ecotourism and preserve the environment may fall short. Such failure was evidenced by Ioannides (1995) when investigating the introduction of sustainable tourism, by the government, to the Akamas peninsula, in Cyprus, with local rural communities largely excluded from the decision-making process. Despite this background, the local community was seldom mentioned during the workshop. There was more debate concerning the local community during interviews, since the topic guide explicitly covered relationships with the local community. A lack of regard for the local community was also apparent at a conference on Tourism Development for Kurdistan held in London in July 2013 where benefit-sharing with local communities was absent from the conference programme (TIDC, 2013). In addition, this could be because Kurdish research participants had limited experience of ecotourism and are unaware of the central role of local community involvement within ecotourism. However, the marginalisation of local communities is a persistent theme in ecotourism literature, perhaps reflecting a more fundamental power imbalance between local communities and other stakeholders.

In the conservation literature, the procedure of imposing strict rules and regulations upon local communities to conserve biodiversity in protected areas (so-called 'fortress conservation') is seen as both ineffective and unethical (Nepal, 2002; Nepal and Weber, 1995b; Lai and Nepal, 2006; Heinen, 1996). This literature refers to the importance of cooperation and support from local people for successful protected area management (Mehta and Heinen, 2001), by empowering them and involving them in decision-making process . Many suggest, e.g. Mehta and Heinen (2001) and Honey (1999), that sustainable conservation and community development can be achieved by ecotourism only by providing economic and social incentives to local communities. Otherwise, if the local community is excluded from ecotourism development and its resultant benefits, this will erode local people's support for conservation and will eventually lead to the failure of ecotourism, as occurred with a giant panda ecotourism project at Wolong Nature Reserve in China (He et al., 2008). As apparent from section 5.4.2.6 and Table 8, at times, some of

the workshop and interview respondents referred to 'fortress conservation' ideas such as forcible eviction of local communities. Benefit-sharing with local communities was seldom mentioned. Supporting this argument only one interview participant emphasised encouraging small community-based tourism business, echoing similar findings concerning barriers to sustainable tourism development in Jamaica (Altinay et al., 2007) . This implies that Kurdish ecotourism risks marginalising local communities.

5.6 Conclusion

Through the examination of ecotourism development in the Kurdistan region, this research has illustrated some of the challenges encountered by a post-conflict country during its recovery in the aftermath of many years of war. The findings of this study support the existing literature in relation to some of the common problems that post-conflict settings experience as they attempt to progress and develop.

Despite the efforts that the KRG has made to develop tourism and ecotourism in Kurdistan, these findings reveal some of the challenges which lay ahead. The most prominent challenge is the lack of institutional collaboration between different stakeholder groups while development matters are highly centralised and decision-making is monopolised by political influence which lacks consultation and transparency. In addition, the concept of local community participation in planning and decision-making is not considered by other stakeholders, in particular the KRG institutions. However, at the same time the government is seen to be the key player in ecotourism development and stakeholders tend to place the blame for creating problems and the onus for solving them on the government while the government remains unidentified. Additionally, the absence of a well-developed private sector is also apparent. Other impediments to ecotourism development are a lack of environmental awareness among people, a lack of allocated budged for tourism and ecotourism projects and the remaining political unrest and security issues such as the existence of landmines.

Despite all the challenges, there may still be potential to develop ecotourism in the Kurdistan region if there is a serious commitment on the part of the KRG authorities to improve the political situation and learn from the experiences of other similar socio-political settings such as Lebanon, North Cyprus and Bosnia and Herzegovina. However, any future planning to develop the region ought to consider ecotourism development a high priority and should be accompanied with initiatives to raise environmental awareness. Most importantly, unless the local communities are

empowered and provided with economic benefits their cooperation and support for ecotourism will be limited and thus ecotourism development will not be achieved successfully.

Finally, another general lesson to be learned here is that some of the data obtained for the purposes of this research have quickly become out of date. This happens due to the rapid rate of social and economic (from oil revenues) change experienced in such post-conflict regions, associated with the volatility of the political environment. These factors greatly affect the validity of the data which requires frequent updating.

Chapter 6: Local Perspectives on Ecotourism Development in Ruste Village, Kurdistan Region of Iraq

6.1 Summary

The local community was seldom mentioned as an important ecotourism stakeholder by participants in earlier fieldwork (Chapter 5) despite local participation and benefit-sharing being seen in the literature as integral to ecotourism. Therefore, this survey studied the local community and their relationships with other stakeholders and attitudes towards ecotourism. This research investigates local reactions to a proposed ecotourism project by the Kurdistan Regional Government (KRG) in Ruste Valley in the newly established Halgurd-Sakran National Park (HSNP), Erbil Province (Figure 39). Rapid Rural Appraisal (RRA) interactions with local residents in Ruste and Girdik villages were combined with field observations to examine community knowledge and opinions regarding KRG ecotourism development plans there. Following the conceptual framework developed by Lai and Nepal (2006), the study also used structured questionnaires to examine the local community's attitude and intention towards four dimensions of ecotourism, namely conservation of natural resources, preservation of cultural tradition, sustainable community development, and participation in ecotourism planning and management.

The RRA findings identified a local timeline of tragic events resulting in the frequent displacement of the inhabitants and the destruction of sites which, if still standing today, would represent important archaeological and cultural destinations (such as the ruins of Ruste castle). The area now experiences high levels of outmigration due to lack of economic opportunities and adequate services, reducing scope for cultural ecotourism. Furthermore, results from the questionnaire survey revealed that residents' attitudes were positive towards plans for ecotourism development, but they showed less intention to act on their feelings.

Overall, these various barriers to ecotourism development could be reduced by building more trust between the community and the KRG. This might ultimately help to reduce the discrepancy between the local community's attitude and intentions, enabling the rich natural and cultural features that Ruste still offers to provide a basis for successful ecotourism development.

6.2 Introduction

In sustainability research there is a growing interest in community development, and the demand for sustainable growth has resulted in greater concern for, and awareness of, the role that local people play in determining their own future (Walpole and Goodwin, 2000). As a result, tourism researchers consider community-based approaches to tourism development to be a requirement for successful and sustainable tourism development (Vereczi, 2007). Honey (2008) asserts that the local community is a critical stakeholder in the tourism/ecotourism industry and its participation in planning, management and decision-making is essential for the implementation of successful ecotourism projects. Through providing economic and social incentives to local people (Walpole and Goodwin, 2000; Wunder, 2000), ecotourism aims to achieve both conservation of natural sites and community development (Chapman, 2003). More traditional 'fortress conservation' approaches in protected areas have been criticised as ineffective and unethical because of the extreme rules and regulations which are imposed on local people (Siurua, 2006b). Such regulations sometimes lead to the relocation of indigenous people from their places of origin (in or near national parks) and the situation, ultimately, engenders conflicts between the national park authorities and the indigenous peoples (Nepal and Weber, 1995a).

It is suggested that changing community values into sustainable actions requires empowering of local residents, increasing their environmental knowledge (Zhang and Lei, 2012) and encouraging their participation in the decision-making process (Scheyvens, 1999). One means of local community empowerment is ecotourism (Coria and Calfucura, 2012). The tourism management literature emphasises managing and sharing resources among all key stakeholders (Sautter and Leisen, 1999), and local communities having input to tourism planning and activities (Simmons, 1994). On the other hand, communities may not necessarily have a shared interest in tourism planning, so it is important to address the heterogeneous nature of their interests, particularly in issues related to conservation and development (Brandon et al., 2001). This is because diverse community groups, particularly indigenous communities, value the benefits of conservation in different ways (Infield and Namara, 2001; Nepal, 2002). This is particularly true in the case of newly introduced conservation programmes in the form of natural reserves and national parks, and prior to newly proposed tourism development in such places (Lai and Nepal, 2006).

A growing body of tourism and ecotourism research is studying the relationships between local communities and protected areas (Alcorn, 1993; Wells and McShane, 2004; Noss, 1997), particularly in the context of sustainable tourism (Jamal and Stronza, 2009; Scheyvens, 1999). This literature suggests local communities are seldom consulted over conservation and ecotourism programmes and often do not benefit from tourism development. The lack of consultation may

lead to an increase in illegal activities such as tree-cutting and poaching, and ultimately project failure (Corson, 2011).

Different approaches to studying community engagement have been undertaken. One such approach to engage with local communities prior to implementation of conservation programmes and developing ecotourism has been developed by Lai and Nepal (2006). Lai and Nepal's approach, with some other studies adopting similar approach, is explained in more detail in section II of 2.3.1.

Following Lai and Nepal's framework, this study also examines whether or not there is congruence between community attitude and intention regarding proposed ecotourism development in a case study site where ecotourism development is planned, Kurdistan's Ruste village. The objectives of this research (this chapter) are as follows:

I. Examine local community attitudes and intentions to potential ecotourism development within a political conflict environment (relationships with other stakeholders).
II. Assess the degree of engagement between the local community and other stakeholders.
III. Understand the needs of the local community within a given local context.
IV. Explore the utility of Lai and Nepal's methodology by applying it in Kurdistan alongside Rapid Rural Appraisal (RRA) techniques.

As such, this study aims to discover whether a conceptual framework and methodology applied elsewhere (in Taiwan, where ecotourism is well established and was initiated in 2001) is applicable to the conflict-affected Kurdistan region, where ecotourism was only proposed in 2012. Two approaches were used, namely RRA and a questionnaire survey.

6.3 Data and Methodology

6.3.1 Study Area – Balakayati Region and Halgurd-Sakran National Park

Choman is one of the 7 districts in Erbil governorate/province to the east of the Kurdistan region bordering Iran. Its main city, Choman, lies 150 km north of Erbil city (Figure 39). The Choman district forms a strategic connection between Iraq and Iran through the well-known and historic Hamilton Road, which stretches from Erbil 180 km through the Zagros Mountains to the Iraqi-Iran border at Haji-Omaran. Having varied topography, a moderate summer climate (temperature ranges between 15-35 °C) particularly in the valleys, indigenous local communities with relatively unchanged cultural traditions such as costume and hand crafts, and natural features such as

abundant wildlife, the Balakayati region (a sub-district in Choman) is generally considered an attractive tourism destination locally, internationally, and by the KRG. There are numerous mountains in Choman district, of which Halgurd is the highest (3,607 m above sea level), being part of the Hasarost mountain chain. Other significant peaks in the area include Sakran (2,434 m), Karokh (Figure 40), Shekh Nasr, Kodo, Mamarot, Grdemend, and, most of which are accessible on foot if not by car.

In addition to its attractive valleys such as Ruste, Khanaqan, Sakran, Khoshkan and Basan, Balakayati has various spas, which are visited by people who have health problems, as the waters are considered to have healing properties. This has made the region very attractive for national and international visitors (Rwsty, 2011). It is rich in cultural heritage, with some feature, dating back to 200 – 800 BC, in the form of archaeological sites, such as Swere Castle; Maloshk Castle; Ruste Castle; Meme Khelan; and Shakhi Sanam and ancient monuments and religious places such as Piri Mata and Maznan cemeteries. These sites feature in a book 'Archaeological sites in Iraq', issued by the General Directorate of Antiquities in Bahgdad in 1970, all of which provide evidence of the long and rich history of the region (Rwsty, 2011).

In the Balakayati region there are over 130 villages. Ruste valley, which has 27 villages, is one of the most well-known valleys in the region and named for the most widely known village of Ruste, the biggest and oldest in the valley (Rwsty, 2012a). Ruste village is about 2,600m above sea level. Around the village there are some of the oldest cemeteries, namely Piri Bakh, Piri Mat, and Piri Baw going back to the Zoroastrianism era, an ancient Kurdish religion before the Kurds converted to Islam about 1,400 years ago. There are also Christian and Jewish cemeteries. While Jews left the village between 1949-1951, after the establishment of the state of Israel in 1948, it is not known when Christians lived in Ruste (Haji, 2012). One of the oldest and most well-known archaeological sites in Ruste is the ruins of Ruste Castle, also known as Meer Sadiq Castle, built during the Soran Emirate, 1816 – 1838. Ruste Castle was destroyed by Iraqi forces in 1978, during a series of campaigns to suppress Kurdish guerrillas, sometimes known as Peshmarga or freedom fighters (Rwsty, 2006).

Within the region, a 110 km^2 area known as HSNP (Figure 39) was designated for conservation in 2010 to protect both natural and cultural features of the region and improve the socio-economic conditions of local people (Rwsty, 2012a). In 2012, the General Board of Tourism (GBT) proposed an ecotourism programme within the HSNP, specifically in Ruste village (Jaleel et al., 2012).

Although generally seen as an integral player in ecotourism development, the local community was rarely mentioned in the earlier participatory stakeholder consultation (see section 5.5.7). Only one survey of local residents in Ruste village has previously been conducted; this was in 2012

by the GBT on 'the implementation of a proposed ecotourism programme in Ruste village to eradicate poverty' (Jaleel, 2012). The report considered the socio-economic conditions in the village of locals and the region's suitability for ecotourism development, but did not examine the local community's perspectives on ecotourism development.

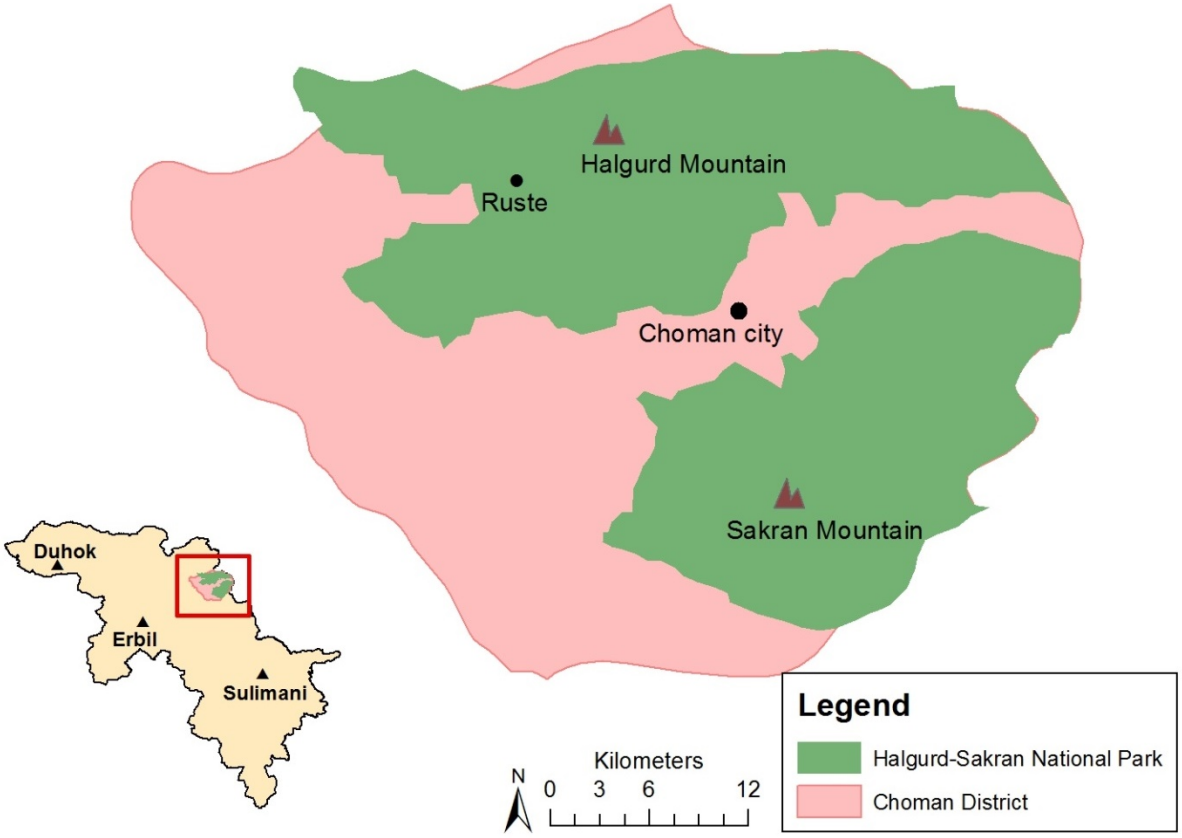


Figure 39: Choman district and the Halgurd-Sakran National Park

Halgurd Mountain
Source: http://bot.gov.krd/erbil-province/parks-attractions/halgurd-mountain

Sakran Mountain
Source: http://peakery.com/jabal-sakran-iraq/

Karokh Mountain
Sources: http://www.panoramio.com/photo/74131578

Figure 40: Some of the well-known mountains in Choman district

6.3.2 Rapid Rural Appraisal

Given the lack of published studies of the environment and local community within Balakayati, fieldwork initially took place in the form of a Rapid Rural Appraisal (RRA). Several RRA techniques (secondary data collection; transect walks and photography; and group discussions and timelines) were used via three strands of fieldwork.

Firstly, prior to fieldwork, GBT plans to develop ecotourism in Ruste village were reviewed and a member of staff at the Tourist Information and Record Office (TIRO), a section within the GBT, was interviewed.

Secondly, transect walks were used to identify occupancy of housing and assess the cleanliness of the local environment with observations recorded via note-taking and photography. Transect

walks took place alongside conversation with local residents. The transect walk covered the three most inaccessible of the 27 villages in the Ruste Valley. Field observations were made in the most inaccessible village of Shlan, which is at the eastern head of the Ruste valley and forms the easternmost, abandoned village within the valley. The transect walk then proceeded westwards, through the populated villages of Girdik and then Ruste, which both lie closer to the valley entrance in the southwest. A separate transect walk was made in a north-westerly direction to the ruins of the historic village of Gorbabila. Rather than drawing diagrams as is traditional in a transect walk, photos were taken by the researcher during transect walks using a smart phone and geotagged photos were subsequently mapped against high resolution satellite imagery using ArcMap 10.2.

Thirdly, to sample a wide range of experiences in a short time, four informal group meetings, each consisting of four to eight participants, were held with local residents in Ruste and Girdik villages. Girdik village, the nearest village to Ruste, was included in the survey to compensate for the much lower resident population in Ruste than anticipated. Since the researcher was based within the local community, his host acted as a key informant and an initial point of liaison with the community in both Ruste and Girdik, enabling community members to be approached to participate in group discussions. Included in one discussion group in Ruste was the councillor or head of the village. Each meeting lasted for about one hour and was held in one of several locations: at the councillor's home, in the garden of the police station or the local clinic. The meeting in Girdik was held in a private shop. In group interviews, participants were first invited to discuss the overall situation in Ruste valley, their villages, and issues affecting their communities. They were then prompted to discuss their relationships with the government, particularly the GBT in regards to the HSNP development and the proposed ecotourism programme in Ruste village. Finally, groups were also invited to identify key events in the history of their village, thereby constructing a timeline for the community.

Notes were recorded in the discussions and were then transcribed for analysis.

In January 2015, the individual who fulfilled the role of key informant in Ruste village (i.e. the person who hosted the researcher during Ruste fieldwork in 2013) and the GBT official were both contacted separately via phone to obtain the updated estimates of resident household numbers in Ruste.

6.3.3 Questionnaire Survey of Community, Attitudes and Intentions towards Ecotourism Development

In November 2012 a pilot survey was conducted with 10 participants in the Amedi region to test Lai and Nepal's (2006) framework prior to its implementation in Ruste. Four people also participated in a discussion group to refine the initial questionnaire design (Chambers, 1994). The survey questions for Ruste fieldwork were then updated accordingly.

I. Sampling

In the absence of any population registers for planning sampling of local community members, a four-day preparatory fieldtrip was conducted in April 2013 in Ruste and Girdik. Residents over 18 years old with different occupations and backgrounds were engaged in conversation and interviewed, for example, two doctors and one teacher and several farmers, students, cleaners, housekeepers, shop keepers, clerks, and unemployed residents. The GBT estimated that Ruste and Girdik consisted of 120 and 80 households with approximately 650 and 350 residents, respectively. Therefore, a quota sampling of local residents was planned to equally represent different age and gender groups in both villages. However, since the preparatory fieldwork revealed a much lower number of households in both villages, mainly because of out-migration to cities, a complete census of all willing respondents (one per household) was conducted in Ruste instead. Sixty Ruste residents were interviewed in this way. In Girdik, referral sampling began with one participant (shopkeeper) identified by a participant in Ruste. Subsequently, several other residents were interviewed who were identified by this initial respondent, and who were available and willing to participate were included in the study. Each interview took 20 to 30 minutes to complete. The researcher stopped interviewing people when the original planned sample size of 70 was completed. Ten residents refused to participate in the questionnaire survey because they were either uninterested or did not have time.

Ethical approval (reference number 5758), was obtained from the University of Southampton prior to conducting the fieldwork. Informed consent was obtained from all respondents (see Appendix 10 and Appendix 11).

II. Interview Protocol

To assess the extent of government consultation with the local community, participants were first asked whether they were aware of government plan to develop ecotourism in Ruste village and if so, how this had been communicated to them (see questionnaire in Appendix 13).

Following Lai and Nepal (2006), two measurement scales were then used to assess local residents' attitudes and intentions (see section 6.2) towards ecotourism development in Ruste village. The questionnaire consisted of 17 paired statements focussing first on participants' attitudes and then their intentions concerning one of Lai and Nepal's four dimensions of ecotourism (Appendix 12). For example, the first dimension related to community engagement with conservation of natural resources and includes a component about community engagement with environmental education. In relation to this, participants were asked to evaluate (via 3 Likert categories: agree, neutral, or disagree) the statement 'There should be opportunities for local community to learn about the natural heritage of the area, e.g. flora and fauna.' This provided an indication of whether their attitudes towards community environmental education were positive. They were directly then asked to evaluate (again via 3 categories: likely, neutral or unlikely) the statement 'If the government developed resources explaining the natural heritage of the area, e.g. national parks, natural reserves, leaflets, I would take time to read these materials or visit such sites'. This statement again related to community environmental education, but indicated whether or not the participant would actively engage in such activity, thus assessing their intentions (Table 10).

III. Analysis

The frequency of responses was graphed for each of the 17 attitude and intention statement pairs. The relationship between attitude and intention was analysed using Spearman's rank correlation coefficient, calculated in SPSS. Following Lai and Nepal's analysis protocol, correlation coefficients were calculated by first assigning a score to Likert categories in attitude: 1 for disagree, 3 for neutral and 5 for agree, and to Likert categories in intention: 1 for unlikely, 3 for neutral and 5 for likely. These numeric scores were averaged for each statement. For statement pairs within each of the four dimensions, Spearman's rank correlation coefficient between overall average scores was then calculated. Furthermore, since Lai and Nepal's original paper ignored any inter-relationship between attitude and intention for the 17 statement pairs, the correlation between the raw respondent scores for attitudes and intentions for individual pair of statements was also calculated.

Table 10: Paired statements of participants' attitudes and intentions concerning dimensions of ecotourism development. For full statements see Appendix 1

Ecotourism Dimensions		**Attitude statement**	**Intention statement**
Conservation of natural resources	1	Specifying carrying capacity of tourist activities the national park	Residents would stop visiting areas of the national park with many tourists present
	2	Access restrictions at tourists to areas of national park	Helping rangers to prevent illegal activities
	3	Trade in rare plants should be prohibited	Preventing trade in rare plants by educating people
	4	Trade in rare animals should be prohibited	Preventing trade in rare animals by educating people
	5	Increasing knowledge about the natural heritage of the area	Learning about the natural heritage of the area
Preservation of cultural tradition	6	Preserving the traditional tribal sites in the national park	Preserving and maintaining the traditional tribal sites in the national park
	7	Preserving the spirit and content of the traditional ceremonies from any change caused by tourism development	Preserving the spirit and content of the traditional ceremonies from any change induced by tourism development
	8	Replacing the original economic activities by tourism	Replacing their original economic activities i.e. current jobs, by tourism
	9	Increasing knowledge about the cultural heritage of the area	Learning about the cultural heritage of the area
Sustainable community development	10	Discouraging littering by tourists	Challenging tourists over throwing litter and educating them
	11	Decreasing waste	Using reusable tableware
	12	Groups of tourist in the community	Accepting groups of tourist in the community to increase income
	13	Maximising non-local/foreign tourism investment	Encouraging non-local/foreign tourism investment
	14	Stopping negative tourism impacts, such as cutting trees	Participating in awareness campaigns to stop negative tourism impacts
Participation in ecotourism planning and management	15	Increasing communication with government for tourism planning	Working or communicating with government to develop ecotourism
	16	Participating with other stakeholders in tourism planning	Participating with other stakeholders (i.e. attending meetings) to develop ecotourism
	17	Increasing ecotourism-related jobs	Encouraging ecotourism-related jobs

6.4 Results

6.4.1 Rapid Rural Appraisal

The findings obtained from the GBT, from the transect walks and the data collected from the group interviews are presented separately below.

I. Information from the GBT

The respondent from the GBT (a member of staff at the TIRO) described the GBT's plans for ecotourism development in Ruste, Halapja and Amedi as first proposed in 2012 (see section 4.3). The respondent confirmed the information in the ecotourism plan and that the KRG had already approved the Ruste proposal and begun project implementation there while the Halapja and Amedi proposals had not yet been approved. The ecotourism project aims to preserve the traditional lifestyle of the local community in Ruste valley, their livelihoods, and conserve the national and cultural heritage of the area, which is also largely within the HSNP. However, the respondent stated that the government had rules and regulations already in force to prevent illegal animal poaching and tree cutting, though these rules were not thoroughly enforced.

To encourage people to remain in or migrate to Ruste valley villages, the government had established loans to build houses in villages, though uptake of this policy remained limited.

The GBT plan aimed to encourage the local community to participate in ecotourism development through, for example, sharing their traditional lifestyle with ecotourists and maintaining historic dwellings. The respondent also revealed that in Sakran village, located within the HSNP on Sakran Mountain, the local community still follows a very traditional lifestyle. The development programme may expand to include this village, depending on the KRG support. If included, the plans for ecotourism development in Sakran village would be that some or perhaps all dwellings would be bought by the government under a compulsory purchase scheme and that only those families which follow the rules dictated by the government (GBT) would be allowed to stay in the village. However, no written document was found to confirm this. It remains unclear whether the government would be responsible for relocating any families asked to leave their houses following compulsory purchase by the KRG.

The respondent described a timeline of tragic events in Ruste village and the number of households resident there since 1970. In 1975 and 1978 the villagers (about 500 households) were driven away from the village, which was partially destroyed by the forces of the Iraqi regime. However, the village was repopulated after each clearance. The village was completely destroyed

for the last time in 1983, when again all the villagers were displaced to cities and towns. Others were forcibly settled in concrete encampments through a villagisation policy, whilst some villagers escaped to Iran. In 1991, following the first Gulf War in 1990, when a no-fly zone was set up by the International Community over what is now known as the Kurdistan Region of Iraq and this region became semi-autonomous, the Rustian (the name for the original residents of Ruste village) started to return to their village and rebuild it. The number of households gradually increased from 15 in 1991 to about 144 in 2007. However, this number started to decrease to about 130 and 120 households in 2011 and 2012 respectively. There were still 120 households in 2013, when fieldwork took place, according to the respondent. When the same respondent was contacted in January 2015 to obtain an updated estimate of resident households in Ruste village, he reported that just over 100 households remained (Figure 41).

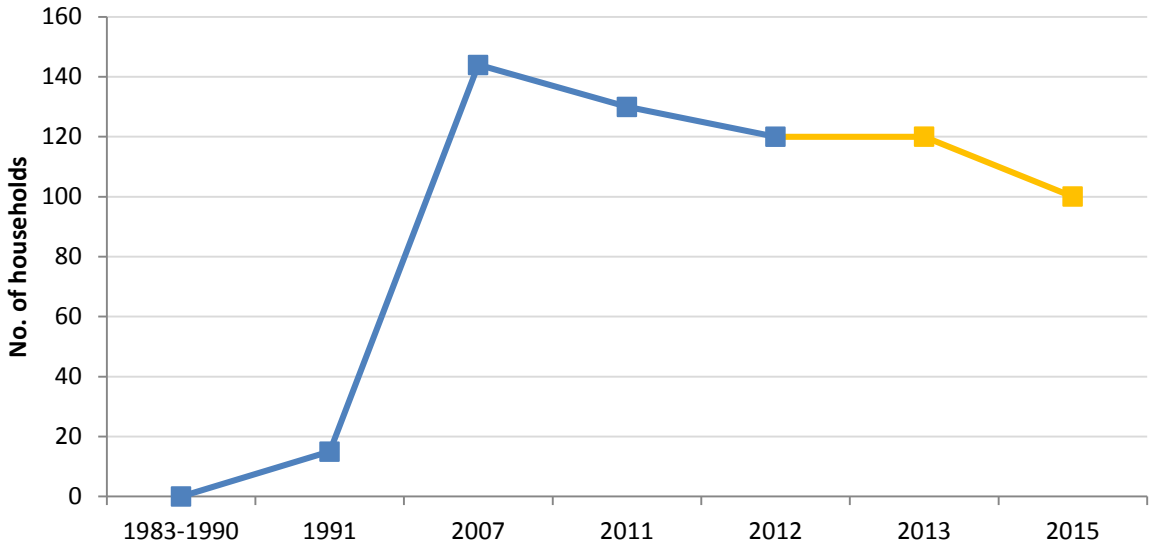


Figure 41: Number of households in Ruste village since 1991 as estimated by a GBT respondent

II. Transect Walks

Selected photos from transect walks are shown in Figure 42, whilst Figure 44 shows the location and number of each photo taken [1 to 12]. The transect walks suggested that the Balakayati region, particularly Ruste valley, has much potential for ecotourism development, mainly due to the natural and cultural heritage. This was apparent from the abandoned caves which used to be inhabited by human populations several thousand years ago, as was stated by some of the local residents of Ruste village when talked to during the transect walks. According to the locals, these

caves were also used by Kurdish freedom fighters in 1970s and 1980s. No photos of these caves were taken during the transect walks as they were remote from Ruste.

An important icon of Ruste village is the ruin of Ruste Castle, of which only the eastern wall (Figure 42 [1]) and its water reservoir, named Sarinj, (Figure 42 [2]) are still standing. In addition, there are the ruins of the historic village of Gorbabila, which is several thousand years old, according to some local residents (Figure 42 [10]). There still exist ruins, in the form of collapsed houses (Figure 42 [9]), dating from the destruction of the village, which took place three times in 1975, 1978 and 1983, as was confirmed by some local residents. Residents spoken to during transect walks noted that this destruction also included more than 500 other villages falling within a 30km cordon sanitaire created by Iraq with the approval of Turkey and Iran. The purpose of creating the cordon sanitaire was to suppress the Kurdish uprising against the Iraqi government which was initiated in 1974. The villagers were relocated to concrete encampments in army-controlled areas through a process of villagisation (see Ghaidan 2008).

Although local residents were aware of the valuable cultural heritage in their village, such as Ruste Castle, preservation of historic sites did not appear to be a priority. For example, the family who claimed to own the castle used its water reservoir (Figure 42 [2]) as a storage area, while building a house on the castle's ruins (Figure 42 [3]).

The landscape comprised a mixture of enclosed plots of various sizes, but also communal grazing lands. Field observation indicated that the enclosed plots were used either for fruit tree cultivation or cultivating vegetables. Accompanying residents indicated that some plots had become increasingly small as inherited land was subdivided and also indicated that fencing off of land was becoming increasingly common, particularly to protect against possible enforced government acquisition of land (Figure 42 [11]). Residents noted that most vegetable cultivation was for subsistence and that commercial fruit production had largely ceased. Furthermore, some of the residents who were interviewed or engaged in conversation during transect walks seemed to be uninterested in this study, explaining they had not benefitted from previous ecotourism-related surveys.

Through conversation with accompanying villagers and direct observation, it was apparent that Ruste valley and Ruste village had relatively poor public services, such as no rubbish collection (Figure 42 [8]) and unsurfaced roads (Figure 42 [4, 5, 6 and 7]). At the same time, local residents were observed to be littering themselves.

During transect walks, evidence of abandonment of agricultural land was observed, consistent with residents' reports of a decline in agricultural employment and many men being restricted to employment as peshmerga reservists. Residents encountered during transect walks reported that

those who moved to towns and cities found public or private sector employment, and seemed to have a better quality of life, visiting the village only occasionally. Many of the dwellings in the village seemed to be deserted. At the Upper end of Ruste valley, Shlan village was completely abandoned (Figure 42 - [12]). In contrast, in rural areas on the road between the Ruste valley and Duhok, there was widespread evidence of recent housing construction which would require considerable capital. An example is shown in Figure 43. Given the construction costs of building such houses, it seems likely that these are being built as second homes by urban residents. Although such houses were observed closer to Duhok, during transect walks, no such houses were observed in the Ruste Valley, which is some distance from Kurdistan's major urban centres.

1) Eastern wall of Ruste Castle ruin

2) Water reservoir (Sarinj)

3) A dwelling built on Ruste Castle ruin

4) Unsurfaced roads and poor public services

5) Unsurfaced roads and poor public services

6) Unsurfaced roads and poor public services

7) Unsurfaced roads and poor public services

8) Refuse on the ground

9) Ruin of a collapsed house from 1983

10) Ruins of Gorbabila historic village

11) Land fenced by residents

12) Shlan village after complete abandonment

Figure 42: Fieldwork photos taken during transect walks. For their location on the map refer to Figure 44

Figure 43: Example of rural holiday home construction in a rural area in Duhok province by wealthy urban residents

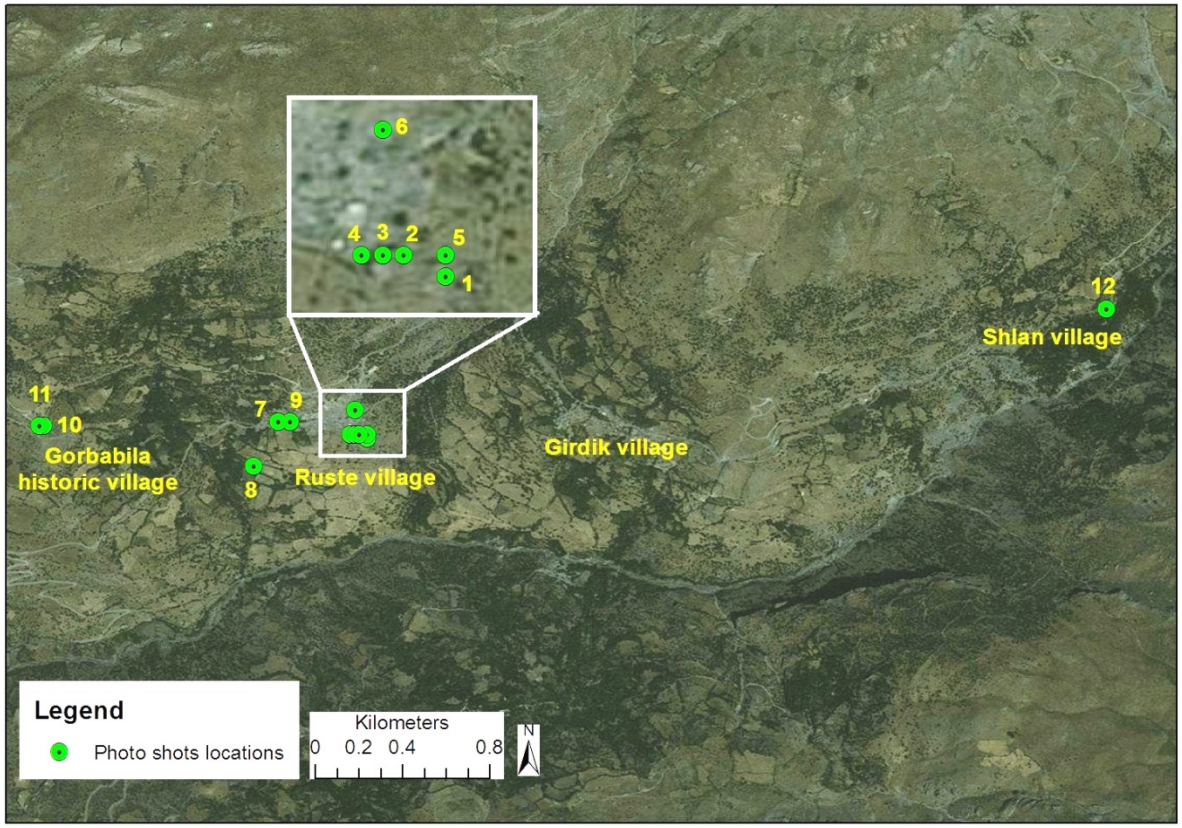


Figure 44: Ruste valley map showing the locations where photographs were taken during transect walks

III. Key Informant Interview

The key informant, who hosted the researcher in Ruste, suggested that most locals had abandoned farming and animal husbandry due to them being unprofitable and had started to abandon the village due to poor socio-economic conditions. He suggested only about 85 households were left in Ruste village from about 120 in 2012 (Figure 45), contradicting the information provided by the GBT (Figure 41). The key informant himself disclosed his plan to leave the village for Erbil, the capital city of the Kurdistan region. When the same key informant was contacted in January 2015, he claimed that only 73 households remained (Figure 45), but that outmigration had lessened because of a decline in urban employment opportunities as a result of recent conflict and instability. This also contradicted figures reported by the GBT representative (Figure 41).

IV. *Group Interviews*

In the group discussions, other people also confirmed the out-migration phenomenon and claimed that the population of the village had lessened by almost a third, compared with a year ago. Some participants claimed that around 500 households lived in Ruste village in the late 1970s. Figure 46 shows the timeline of local events according to the group interview participants.

Other results collected from the group discussions are divided into three inter-related themes as further discussed below.

Theme One: Problems with the Government

A recurrent theme was the poor socio-economic conditions, lack of employment opportunities, and low wages for those working as Peshmerga reservists. For this matter the government was always held to blame. Agricultural decline was a major issue under this theme and attributed to high competition from relatively cheap imported agricultural produce, mainly from neighbouring countries.

Secondly, they strongly criticised the government for poor public services, such as the lack of adequate medical services and no final stage secondary school. Some residents also referred to the many "disappointing promises the government gave" and "ignorance of the government", as regards to any attempts to improve their conditions by developing ecotourism in the area. They noted that for over a year different government representatives had been visiting their village at different times for survey purposes, to inspect local heritage features, and take photos in regards to the development of ecotourism. However, no tangible benefits had been delivered to them. In order to solve these problems, some residents suggested establishing a joint steering committee to make sure that both ecotourism and other service delivery projects were implemented fully.

In one group discussion, some residents referred to the fact that their village councillor has not been changed since 1991, and that the existing one had not been proactive in solving their particular socio-economic issues or representing the village.

The most significant consequence of these problems was the issue of out-migration. At the meeting several people revealed their intention to out-migrate in the near future.

Theme Two: Cultural and Natural Heritage:

The local residents who participated in group discussions acknowledged that as well as the abundance of natural resources Ruste valley has many historic sites and monuments which are important for ecotourism development. These include the existence of tens of very ancient graveyards "pre-dating of the birth of Christ" as stated by some participants and Dergai Rash which is a pre-historic monument located on Bokhaw hill. While also they mentioned some traditional activities and celebrations they still practice, such as Kestan celebrations (when locals visit mountains foraging for wild herbs and food in spring). However, they pointed out that these traditional ceremonies, particularly the Nawroz celebration (the Kurdish New Year day on 21st of March), were not celebrated with the same vigour as they had been several years previously, due to the generally poor socio-economic conditions in the village.

Theme Three: Issues with Tourism Development:

While discussing potentially positive aspects of ecotourism development in Ruste village, some residents also suggested that some local cultural traditions might prevent ecotourism development. For example, some residents expressed their intentions to oppose any kind of tourism that was incompatible with their religion and cultural traditions, such as selling or drinking alcohol.

Land tenure was raised by some participants as a barrier to ecotourism development, who noted that residents would not give up their inherited lands to be acquired by the government for ecotourism development. Some people have already started to fence their lands, aiming to prevent any external intervention or enforced land acquisition by government (Figure 42 [11]).

Another important barrier to ecotourism raised by the participants was the continued existence of uncleared landmines in many places in Ruste valley. They claimed that tens of local residents from villages in Ruste valley had been killed and more injured by these landmines during the last three decades and requested that these areas be cleared of landmines by the government.

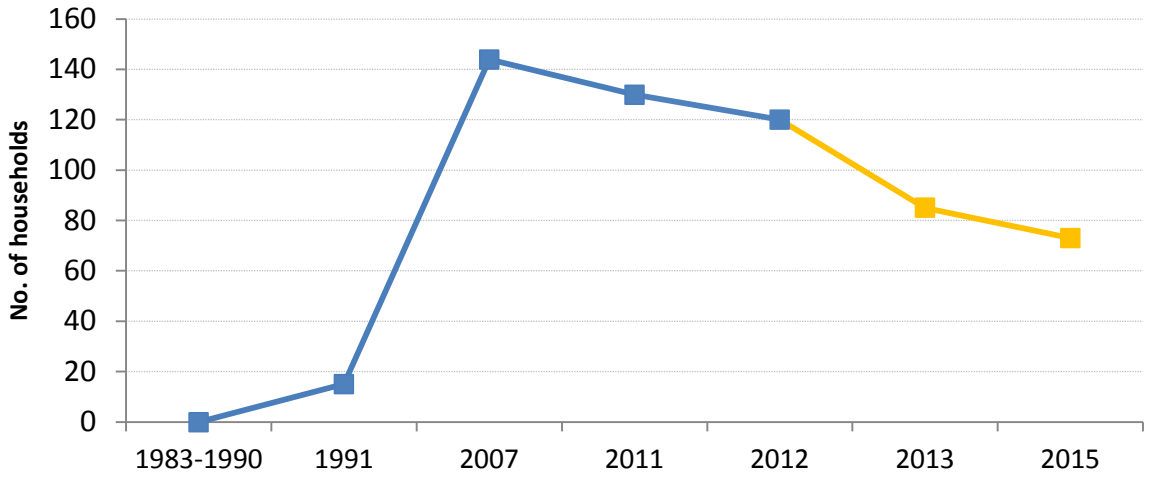


Figure 45: Number of households in Ruste village since 1991 as estimated by group interview participants

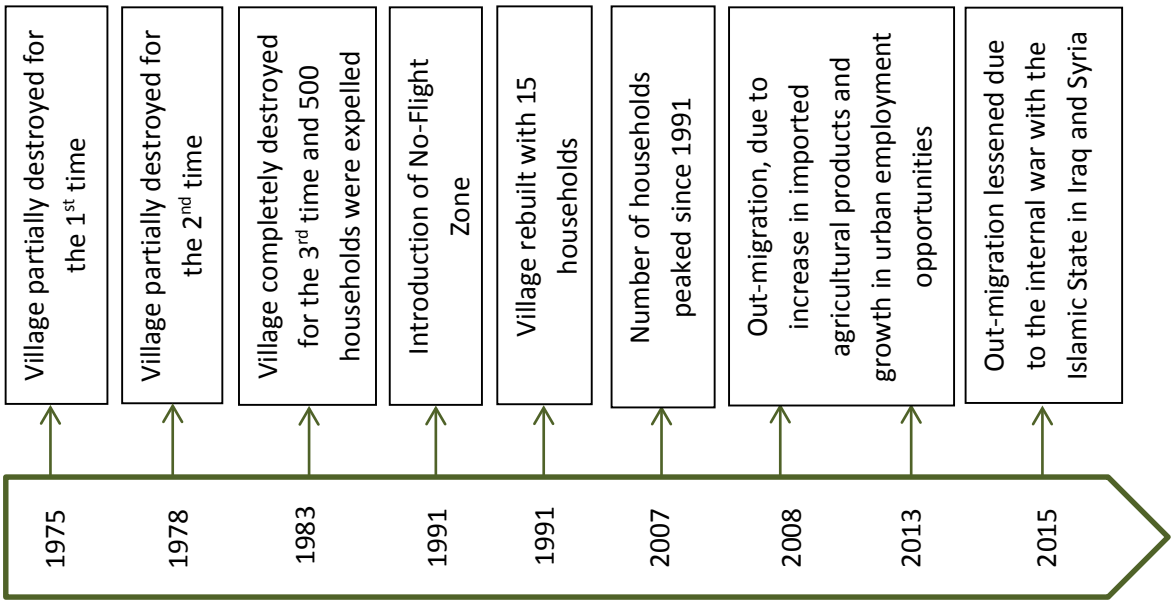


Figure 46: Timeline of events for Ruste village

6.4.2 Questionnaire Survey of Community Attitudes and Intentions

Nine residents declined to be interviewed, resulting in 70 face-to-face interviews being completed, of which 60 were in Ruste and 10 in Girdik. Table 11 shows the socio demographic characteristics of the respondents interviewed in both villages.

Table 11: Socio-demographic characteristics of 70 questionnaire respondents, interviewed concerning their attitude and intentions, in Ruste and Girdik villages

Variable	Response category	Percentage of sample (%)
Gender	Male	69
	Female	31
Educational level	Illiterate	31
	Primary school	24
	Secondary school	40
	Undergraduate	5
Age	18-25	39
	26-40	33
	41-60	15
	Over 60	13

Among the 70 participants interviewed, only 16 (23%) revealed that they were aware of plans for ecotourism development in the Ruste area. Four of these participants indicated they had learnt of GBT ecotourism plans by word of mouth, commenting “there are plans to introduce wild animals into Halgurd Mountain for tourism” and “there is a government project to build some guest houses near Halgurd Mountain”. Two participants stated that there is “a government plan to build a dam near Halgurd Mountain which will be for tourism purposes”. The remaining 12 participants attributed their knowledge of proposed ecotourism to a visit by the GBT: “an official committee of three people from the GBT visited the village last year to conduct a survey regarding ecotourism development in Ruste”.

I. Attitudes towards Ecotourism Development

Data concerning participants’ attitudes towards ecotourism development are presented in Figure 47a, wherein each bar represents one attitude statement from Table 10, labelled [1] to [17] hereafter to link with Figure 47a.

Responses were mostly positive towards conservation of natural resources (CNR). For example, all participants felt the necessity to “learn about the natural heritage of the area [5]”. Also 69% and

90% of them believed that “trade in rare plants [3]” and “trade in rare animals [4]” should be prevented. Less but still positive views were expressed towards “specifying carrying capacity of tourist activities in the Halgurd-Sakran national park [1]” (61%) and “restricting tourist access to certain areas of the national park [2]” (56%).

Similarly, responses regarding preservation of cultural traditions (PCT) were generally positive, with all participants thinking that “learning about the cultural heritage of the area [9]” was important. Meanwhile, the majority agreed with the importance of “preserving the traditional tribal sites in the national park [6]” (99%) and “protecting the spirit and content of the traditional ceremonies from any change induced by tourism development [7]” (94%). Although many were now Peshmerga reservists and no longer farmers, it was noticeable that most respondents (74%) were against “replacing original economic activities by tourism [8]”.

With respect to the dimension of sustainable community development (SCD) all the respondents believed that “tourists should be discouraged from littering [10]” and also that “negative tourism impacts should be stopped [14]”. The majority of them (94%) thought that “tourists’ waste must be reduced [11]”. Over two thirds (73%) agreed that “crowds of tourists could visit the community if that were to generate more local jobs and introduce local lifestyle and traditions to them [12]”. Responses were almost evenly distributed between agree and disagree (53% vs 46% respectively) regarding “maximising non-local/foreign tourism investment in the community [13]”.

In general, the participants felt positively towards increasing local participation in ecotourism planning and management (PEPM). They responded positively for “increasing communication with government for tourism planning [15]”, “participating with other stakeholders (such as NGOs, tour operators, scientists, etc.) in tourism planning [16]”, and “increasing ecotourism-related jobs [17]” with scores of (96%), (99%), and (82%) respectively.

II. Intention towards Ecotourism Development

Responses as regards intentions towards ecotourism development seemed less homogeneous among the participants as shown in Figure 47b, wherein each bar represents one intention statement presented in Table 10, again labelled [1] to [17] to link with Figure 47b.

Regarding conservation of natural resources (CNR), the participants revealed that they were more likely to “prevent trade in rare plants and animals by educating people [3 and 4] and to “learn about the natural heritage of their area [5]” (89%). They were also likely to “assist rangers to prevent illegal tourism activities [2]” (71%). However, only about half claimed they would “stop visiting areas of the national park if many tourists were present [1]”.

The respondents were keen to preserve their cultural traditions (PCT) by showing their high willingness to “learn about the cultural heritage of the area [9]” (91%), “preserve and maintain the traditional tribal sites in the national park [6]” (81%), and “preserve the spirit and content of the traditional ceremonies from any change induced by tourism development [7]” (78%). Their responses were, however, more heterogeneous regarding “Replacing their original economic activities i.e. current jobs, by tourism [8]”

With respect to the dimension of sustainable community development (SCD), only the statements “providing environmental education for tourists [10]” and “participating in awareness campaigns to stop negative tourism impacts [14]” scored highly. On the other hand, however, the participants intended to “accept crowds of tourists in the community if that was to increase their income [12]” (91%) and to “encourage non-local tourism investment [13]” (70%). Furthermore, if they were to engage in catering activities, they were less likely to “use reusable instead of disposable tableware [11]” (20%).

Under the dimension of participation in ecotourism planning and management (PEPM) most of the participants confirmed their intentions to “participate with other stakeholders in order to develop ecotourism [16]” (80%). They showed their readiness to “encourage ecotourism-related jobs [17]” in their community (71%) and slightly more than half of them (66%) preferred to “work or communicate with government to develop ecotourism [15]”.

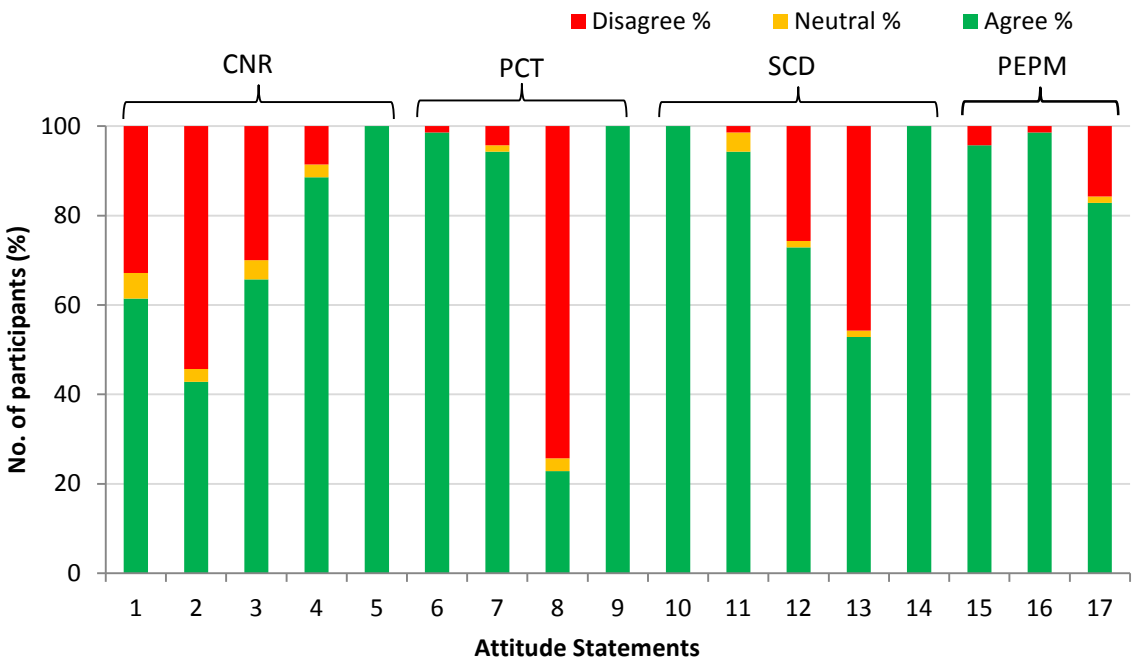


Figure 47a: Participants' attitudes toward ecotourism development (n=70; refer to Table 10 for the 17 attitude statements).

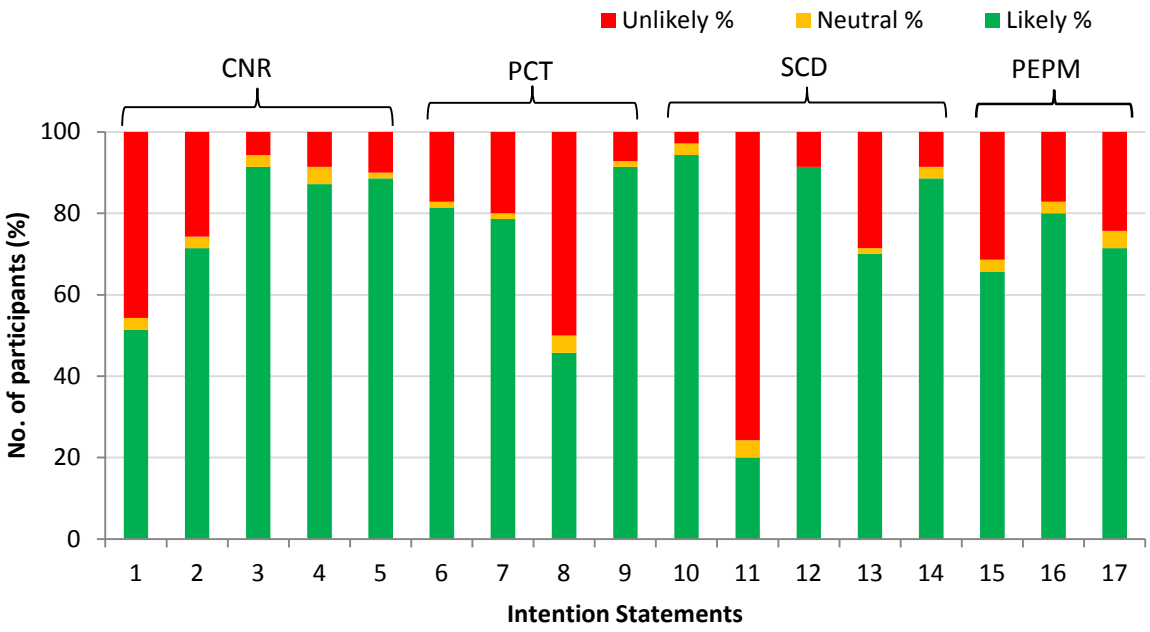


Figure 47b: Participants' intention towards ecotourism development (n=70; refer to Table 10 for the 17 intention statements).

III. Relationship between Attitude and Intention

In order to assess whether participants who expressed positive attitudes towards ecotourism development also had positive intentions to act accordingly, Spearman's correlation coefficient was calculated between mean aggregate attitude and intention scores per statement, looking at each of Lai and Nepal's four dimensions separately (Table 12).

A significantly positive correlation ($r = 0.999$, $p < 0.0001$) was found between the variables of attitude and intention on the dimension of 'preservation of cultural tradition'. This indicates that local people who express favourable attitude towards the above-mentioned dimension were more likely to show the same positive behaviour in action (Table 12). The mean score in attitudes towards the dimensions of preservation of cultural tradition (4.179) and participation in ecotourism planning and management (4.724) were higher than the mean score in intention for these dimensions. The opposite is true for the other two dimensions, namely conservation of natural resources and sustainable community development (Table 12).

Spearman's correlation coefficient was also calculated for each of the 17 pairs of attitude and intention statements (Table 4). There was significant correlation between attitude and intention for at least one statement pair in three out of four dimensions. In general, attitude and intention were significantly correlated only for a single statement pair concerning environmental protection and enforcement ([2]), but not concerning other aspects such as economic engagement (e.g. [8]; [15]; [17]), and traditions (e.g. [6]; [7]). Thus, considerable variation between attitudes and intentions existed within each of the four dimensions. Despite the positive correlation in Table 3 for 'preservation of cultural tradition', inconsistency between attitude and intention could still be found for almost all measurement items within this dimension (Table 13).

Table 12: Correlation between 70 questionnaire respondents' attitudes and intentions towards ecotourism (correlations calculated for 4 dimensions based on overall mean Likert scores for 17 statement pairs; significant results in bold)

Dimensions	Mean score		Spearman's rank Correlation coefficient (r)	*p*
	Attitude	Intention		
conservation of natural resources	4.011	4.2	0.56	0.322
Preservation of cultural tradition	4.179	4.029	**0.999**	**0.0001**
Sustainable community development	4.377	4.417	0.76	0.133
Participation in ecotourism planning and management	4.724	3.981	0.5	0.667

Table 13: Correlation between 70 questionnaire respondents' attitudes and intentions for 17 paired statements concerning ecotourism development (refer to Table 10 for the 17 pairs of statements; significant results in bold)

Dimensions	Statement Pairs	Spearman's rank Correlation coefficient (r)	*p*
conservation of natural resources	1	0.034	0.781
	2	**0.368**	**0.002**
	3	0.194	0.108
	4	0.006	0.961
	5	N/A	N/A
Preservation of cultural tradition	6	0.269	0.024
	7	0.197	0.102
	8	0.127	0.295
	9	N/A	N/A
Sustainable community development	10	N/A	N/A
	11	0.292	0.014
	12	0.145	0.232
	13	0.082	0.5
	14	N/A	N/A
Participation in ecotourism planning and management	15	0.152	0.21
	16	-0.06	0.622
	17	0.167	0.167

6.5 Discussion

This research is one of a small but growing number of studies exploring community responses prior to ecotourism development (Mason and Cheyne, 2000; Lai and Nepal, 2006) and the first study to do so locally with a newly introduced ecotourism industry in the Kurdistan region. Within an environment of political instability, this study explores communication between the authorities and local community within a context of rapidly changing political conditions for the former and socio-economic conditions for the latter.

6.5.1 Local Community's Attitudes and Intentions towards Ecotourism Development

The main finding from the questionnaire survey here - that the Ruste community had favourable attitudes and intentions towards ecotourism development - matches that of Lai and Nepal (2006) in Taiwan and other studies in Indonesia (Walpole and Goodwin, 2001); Nepal (Mehta and Kellert, 1998) and southern Taiwan (Zhang and Lei, 2012). According to the tourism literature, communities with little or no experience of the tourism/ecotourism industry tend to be positively disposed towards the industry (Harrill, 2004) especially where other economic alternatives to tourism are few (Smith and Krannich, 1998, p. 783).

I. Resident Attitudes

Residents' attitudes and intentions towards ecotourism were generally positive in the questionnaire survey. However, three statements in the attitude section represented in bars 2, 12, and 13 of Figure 47a, were relatively negative. Their disagreement with the statement 'having access restrictions of national park' [bar 2] whilst strongly agreeing with the statement 'allowing groups of tourists in the community' [bar 12] may be due to their lack of awareness regarding the negative environmental impacts from the excessive number of tourists, indicating limited environmental knowledge and education. This is consistent with Fiallo and Jacobson (1995) who have studied the attitudes of rural residents towards conservation in Machallilla National Park in Ecuador. Andereck et al. (2005) suggest that awareness campaigns and education are important steps to be taken which help local people improve their understanding of tourism and build more positive views of it. Alongside this, lack of awareness of employment or investment opportunities might have influenced residents' attitude,s leading them to agree strongly with the statement 'maximising non-local tourism investment' [bar 13]. Tosun (2000) and Campbell (1999) noted this to be a common issue in tourism development in developing countries. However, the increase of

non-local investment in the community, as found by Campbell (1999) in his case study in Ostional, Costa Rica, would ultimately limit community benefit from tourism development.

II. Inconsistency between Attitudes and Intentions

With the exception of statement pair [2] in Table 13, attitudes and intentions were not correlated for any statement pairs, indicating that residents who were positive in their attitudes were not necessarily positive in intentions. This finding contradicts those of other studies, such as Chen and Raab (2011) who examined residents' attitudes and intentions towards community tourism development. In their case study, Chen and Raab related this consistency between attitude and intention to the perceived benefits of tourism for residents, while this was not the case in Ruste, which has not yet been actively involved in the tourism business.

Lack of experience (capacity) in ecotourism management may have discouraged the residents from participation in ecotourism planning and management (Table 12), such as working in ecotourism-related business, as shown in statement pair [17] of Table 13. Unlike Ruste and Girdik, the community studied by Lai and Nepal (2006) had been exposed to tourism via a destination known as Vilaulau Hot Springs, which had been attracting visitors since the 1940s. The local community studied by Lai and Nepal may therefore have had a clearer understanding of the potential benefits and impacts of ecotourism. This suggests that local communities would not be that responsive to the potential employment opportunities presented by ecotourism without further community engagement and education activities.

In general, the tragic historical events, as revealed by the local residents and extracted from historical sources (Figure 46), may have contributed to a lack of engagement with environmental issues and related concepts such as ecotourism. Kurds in Ruste valley have witnessed massacres and been displaced from their homes several times during the last four decades. Combined with the ongoing unstable socio-political situation in the region, this is likely to have made environmental protection a low priority. Other populations that have experienced villagisation, for example, in Ethiopia; Tanzania and Mozambique, have often become highly distrustful of government and particularly wary of any subsequent attempts at land reform (Lorgen, 1999a). Suspicion over future government intentions towards land was also apparent here.

6.5.2 Ecotourism Plans and Out-migration

Field observations and estimates of the local population derived from interviews with Ruste residents (Figure 45) both suggested ongoing out-migration from villages in Ruste valley. Even the GBT figures suggest that when the village was resettled in 2007, the number of households did not return to the level of 1983 (Figure 46). As described by the participants, this is because of the low economic returns from farming due to high competition from agricultural produce imported from elsewhere, which amounted to about 65 per cent in 2007, mainly from Turkey and Iran (Jabary and Hira, 2013). According to Jabary and Hira, this situation is related to political interests of these countries that are favoured if Kurdistan is made economically dependent. First, they can more easily interfere generally in Kurdistan's socio-political matters, and second, they can more easily constrain pro-Kurdish activities on Kurdistan territory that may be perceived as a threat. In addition, lack of services (particularly the absence of a nearby secondary finishing school), poor pay for Peshmerga reservists, and lack of employment opportunities all lower the quality of life. According to Stark (1984) such out-migration is common in poor rural areas and is related to local residents moving to bigger towns or cities in search of better quality of life and employment. This pattern is consistent with rural-urban migration in other settings, such as western China, where a large urban-rural income gap drove rural communities to out-migrate (Zhao, 1999). With rapid petroleum-driven urban development, many villagers have already left the village and others plan to leave in the near future, and it is possible that villages like Ruste may be completely abandoned in the near future.

Lack of uptake of the KRG's loan scheme for rural home-building also provides evidence that rural areas remain unattractive (see section I of 6.4.1). This might undermine cultural tourism, which would ultimately affect ecotourism development.

The lack of a recent census makes population and migration estimation difficult in any part of Iraq (Habib, 2013). A very limited amount of research has tried to fill this gap. Eklund and Pilesjo (2012), for example, found a pattern of net urban-to-rural migration, contradicting the findings in Ruste. However, Eklund and Pilesjo's (2012) study is based on only 606 households and furthermore, after accounting for migration out of the non-Kurdish cities of Baghdad and Mosul into rural Kurdistan, there is no clear trend in this study. There are also migration data from the 2006-2007 Iraq Household Socio-Economic Survey, which covered nearly 18,000 households drawn from Iraq's 18 governorates. However, analysis of such data has largely focussed on conflict-related migration (Davidson, 2013), and not considered any rural-urban trend within this data set. The apparent population decline in Ruste in this study was not reflected in reports by the GBT, suggesting limited communication with the local community.

Field observations of home-building in the rural areas by wealthy urban households suggest that some counter-urbanisation may be taking place, whereby such households buy land in the countryside to build very modern vacation homes (section II of 6.4.1). Such urban-to-rural counter-urbanisation has been observed in neighbouring Turkey (Öztürk et al., 2014) and if the trend increases without regulation, it may threaten both rural lifestyles and landscapes.

6.5.3 Interaction between the Local Community and the KRG

The fact that only 23% of research participants were aware of the proposed ecotourism project for Ruste suggests local people are excluded from decision-making. Residents reported no specific measures taken by the KRG to raise awareness of ecotourism prior to project implementation. Despite the questionnaire survey findings, the RRA suggested there was little community interest to participate in development planning, perhaps because of a lack of a participatory tradition in Middle Eastern countries (Blanton, 1999) or because of their history of being marginalised in decision-making, management, and protected area planning (Xu et al., 2006). Meanwhile, literature consistently suggests successful protected area management and ecotourism development will not be achieved without the cooperation and participation of local communities (Bonilla, 1997; Garrod, 2003a).

Simultaneously, local residents expected government to be the key player in managing and developing almost all aspects of their lives by, for example, caring for the environment, providing refuse disposal, providing employment opportunities, and developing ecotourism. This finding confirms the findings obtained from the preliminary stakeholder analysis, where various other stakeholders expected the government to be the key player in developing tourism and ecotourism (see section 5.5.6). Other groups of ecotourism stakeholders such as NGOs and private tourism companies were not mentioned by any participants. Although most participants had a positive attitude towards ecotourism development in Ruste, there was obvious mistrust of the government. The lack of public services was noticeable during transect walks, and the local residents complained about the poor public services provided by the government during the group meetings (sections II and IV of 6.4.1). The local residents were also concerned about the lack of employment opportunities in the village, both because of declining agricultural economic returns and low Peshmerga reservist pay.

Furthermore, imposing strict conservation policies on local communities such as enforced land or housing acquisition in Sakran, as was referred to by the participant from the GBT (section I of 6.4.1) is a form of ‘fortress conservation’ and seems at odds with fundamental ecotourism

tenets. Even though no written document was found to confirm this plan the finding that some residents in Ruste fenced their lands (Figure 42 [11]) to prevent any potential acquisition by the government could indicate that this may happen in Sakran. This is likely to alienate local residents from the government. According to McNeely (2001) local communities have important and long-term bonds with the protected areas they live in and that relocation is often unacceptable to most community members. In the HSNP, some villages have been inhabited for hundreds or thousands of years, such as Ruste which, according to Rwsty (2011), has been inhabited since about 500 BC. Similar restrictive policies by government in China affecting the Wolong people in the Wolong Biosphere Reserve (WBR) ultimately undermined protected area management and generated conflict in tourism management (Xu et al., 2006). Overcoming this lack of confidence in government among local community members, which is one of the major problems raised in this research, requires a change in the power balance and behaviours between groups, individuals, and organisations (Chambers, 1997), as discussed in section 6.5.6.

6.5.4 Evaluation of Lai and Nepal's Attitude and Intention Framework

Lai and Nepal's attitude and intention framework has been widely used to study community engagement in ecotourism (Zhang and Lei, 2012; de los Angeles Somarriba-Chang and Gunnarsdotter, 2012). However, several aspects of its use here suggest the approach needs to be adopted with caution. Firstly, the findings from the questionnaire survey were noted to often contradict the observations made via the RRA. For example, the residents showed their positive attitudes and intentions towards sustainable community development by discouraging and even challenging tourists over littering (bar 10 of Figure 47a and b). However, they were observed to be littering themselves during the transect walks (section II of 6.4.1). This suggests that field observations are a valuable addition to Lai and Nepal's (2006) approach and may capture behaviours not apparent from the questionnaire interviews.

In their study, Lai and Nepal aggregated Likert scores for each statement pair before calculating Spearman's rank correlation coefficients. However, in Figure 47 a and b it is apparent that these domains may mask considerable variation in attitudes and intentions. For example, although Table 3 would suggest correlation between attitudes and intentions for the 'preservation of cultural tradition' domain, there is only one of four statement pairs where attitudes and intentions are correlated when disaggregated data are analysed (Table 13). The statistical analysis of Likert scores aggregated by domain, used by Lai and Nepal (2006), seems potentially misleading. Therefore, it is important to use the disaggregated Likert scores alongside the aggregated ones.

In addition, from the experience obtained from this study, care needs to be taken in the design of the questions. It may be that some of the variation in both responses to attitude and intention statements and the correlation between them relates to the wording of the statements in Table 1.

6.5.5 Methodological Limitations and Future Research

Transect walks and field observations are known to be subjective and include the researcher's own biases when recording (Walpole and Sheldon, 1999). In addition, RRA has been criticised for lacking rigour because of the short period of data collection, amongst other issues.

The lack of recent population census data in Iraq makes it difficult to corroborate the apparent rural out-migration observed from the abandoned houses in the Ruste Valley. Only those present at the time of the survey were interviewed for the questionnaire survey, meaning the views of temporary and permanent out-migrants are not represented in the questionnaire survey results. Since out-migrants are potentially also important contributors to ecotourism, future work could examine their attitudes and intention to ecotourism, future plans to return to their villages and incentives that might encourage them to do so (Zhao, 1999). In this study whilst socio-demographic characteristics (gender, age and educational level) of respondents were recorded, their relationship with attitudes and intention in the questionnaire survey was not examined. However, qualitatively, similar perspectives were provided by respondents with different genders, age ranges or educational levels, except that elderly respondents had greater knowledge of the KRG plans for ecotourism development in Ruste. Nevertheless, these characteristics and others such as income and occupation could be considered when examining participants' attitudes and intentions as undertaken in some other studies, such as by Liu et al. (2010) and Xu et al. (2006).

As well as being applied to other proposed ecotourism sites such as Sakran village, the approach developed here could be used to assess change in community attitudes and intentions towards conservation within the HSNP, including any ecotourism development programme, with this study forming a baseline for subsequent impact assessment (Jim and Xu, 2002; Xu et al., 2006). Such an impact assessment would need to consider the socio-economic situation of the local community in Ruste and whether it could be enhanced by environmental conservation in the HSNP (Garrod, 2003b).

6.5.6 Practical Implications

The creation of the HSNP is an important step aimed to promote conservation of cultural and natural resources of the Balakayati area. The ecotourism project proposed for Ruste village is potentially an economic tool to address sustainable community development and obtain the local community's support for conservation through engaging them in ecotourism management, as similar projects in other settings have done (Byrd, 2007). According to the ecotourism literature, this in turn may facilitate local people's comprehension of tourism in their areas while also improving the quality of planning and decision-making as community views are incorporated (Garrod, 2003a; Scheyvens, 1999). However, this might be difficult to apply in Ruste, with its numerous problems such as limited communication with the government, poor socio-economic conditions, lack of environmental awareness, and lack of security due to unstable political situations. Each of these problems is discussed further below.

First, limited communication between the government and the local community was apparent from the lack of consideration for local participation in the decision-making regarding government strategies on environmental issues and community's matters. Consequently, this has made the local community distrust the government. On the other hand, the results show that the government has been ignoring the local community through lack of public services and limited considerations for economic situations such as the decline in agriculture production. Furthermore, with the absence of a well-developed democratic background where different groups, such as local communities and/or private organisations, participate in decision-making, the government is considered to be the only institution that has the power and influence to develop ecotourism. This problem can be addressed by changing the strategies to make local communities trust the government. For example, the government can strengthen the role of private organisations and NGOs (such as Nature Iraq) and create effective plans to encourage and support farmers to stop out-migration to cities in search for employment, and to help the local community improve their agriculture in order to revitalise this sector.

Second, the poor socio-economic conditions of the local community has greatly affected their lives. This becomes evident when observing the high and accelerating rates of out-migration linked to the decline in income from agriculture due to cheap imported food from neighbouring countries, and to lack of good employment opportunities. On the other hand, the conservation literature indicates that local community responses to conservation depend largely on their perceptions of the cost-benefit ratio of such activity in terms of standard of living versus environmental management (Bandara and Tisdell, 2003; Mehta and Heinen, 2001). If local communities do not benefit from conservation or ecotourism programmes they would not be

expected to support such programmes. Such lack of support for conservation and ecotourism activities was observed in the Wolong Nature Reserve of Giant Pandas in China, due to the existence of disproportional benefit distribution among stakeholders and unequal distribution of benefits within the local community (He et al., 2008). Supporting this argument, Infield and Namara (2001) also found that local communities economically benefiting from a national park in Uganda were more positive towards conservation programmes in the park compared to those did not benefit from such programmes. Therefore, if conservation and ecotourism programmes applied in the HSNP provide economic alternatives to supplement local communities' livelihoods, this may result in more positive attitudes and intentions towards conservation and any ecotourism project. Including benefit-sharing with local communities in potential ecotourism planning and managing may even decrease rural out-migration (Gurung and Seeland, 2008).

Unequal distribution of the benefits of ecotourism between local communities and other external stakeholders and also among the local residents themselves is a recurring problem in newly developed ecotourism areas, particularly in developing countries (He et al., 2008). Unequal competition for potential ecotourism business and its financial benefits may occur between local residents in Ruste on the one side and investors establishing tourism businesses on the other side. This may occur because the local community lacks business development skills and experience and this skills gap needs to be considered when planning for ecotourism development in the Kurdistan region. In this case, training programmes should be provided to the local community focusing on creating small local based ecotourism projects, such as local tourism guides, vendors, handcrafts, etc. In addition, there should be implementation of an agricultural plan, such as conducting general surveys to study the extent of food production and the competition with imported food, and how the quality and quantity of the local crop production can be improved. More about how to improve the agricultural sector in Kurdistan is discussed in more detail in a report by Fuad (2013). Furthermore, more strict rules should arise from the government regarding the conversion of agricultural land in rural areas into areas for holiday houses. Otherwise this will have long-term impacts on agricultural production and capacity to develop ecotourism in the future. Therefore, unless this issue is dealt with urgently, the consequences will be irreversible.

Third, conservation literature, such as a case study of Bigodi village, Uganda (Lepp and Holland, 2006), suggests that positive attitudes towards conservation are generated with increased local community involvement in conservation. Therefore, in order to promote positive attitudes towards conservation programmes in Ruste it is essential to increase community environmental knowledge (Hsu and Roth, 1996). This in turn may help build positive attitudes towards ecotourism development and then directly and indirectly influence their intention to participate in the development, as successfully took place in an ecotourism project in Beimen District,

southern Taiwan (Zhang and Lei, 2012). The community's environmental knowledge can be enhanced via educational programmes, which connect conservation and ecotourism and their impacts on natural and cultural heritage of areas. This happens when education promotes community participation in the decision-making process leading to community empowerment. Empowering local communities could be achieved through involving popular organisations, local mosque groups and indigenous societies in decision-making processes and on representative bodies such as national park boards or regional tourism associations (Scheyvens, 1999). Following preliminary awareness raising, local community environmental knowledge can further be practically enhanced through targeted environmental education programmes. Examples of these include a wildlife conservation workshop targeting elementary school teachers as conducted in Columbia by White and Jacobson (1994), or summer conservation education camps targeting youths as conducted in Florida by Kruse and Card (2004). In both cases the educational programmes successfully improved participants' environmental knowledge and as a result increased participation in the planning and management process.

Fourth, because of ongoing political instability, the local community in Ruste and elsewhere in the Kurdistan region may have more immediate objectives, such as securing shelter, food and security as a priority over environmental issues. If the conflict continues, it may greatly influence people's attitudes and intentions towards conservation and ecotourism. Therefore, in order to avoid failure in any potential conservation and/or ecotourism programme, the authorities should bear this in mind before allocating funds and efforts. More generally, in such an environment, in order to prevent the collapse of any ecotourism-related conservation programme, it is essential to continuously maintain contingency plans in the form of 'crisis management planning' (Pennington-Gray and Pizam, 2011). The tourism industry is highly vulnerable to political crises (Hall, 2002). Therefore, integrating crisis management into tourism planning in Kurdistan will be of great benefit for tourism and ecotourism development there. However, implementing any crisis management planning requires improved cooperation between the tourism stakeholders (Ulmer, 2001) which was found to be one of the main issues in the present study.

6.6 Conclusion and Recommendations

This study suggests poor communication between the government and local people has led to lack of awareness about the proposed ecotourism project in Ruste village. Therefore, a two-way communication mechanism should be established to provide information and expose local people to the proposed government plans and the HSNP management. In addition, a collaborative

decision-making framework should be set up to strength the relationships between the local people and the government, particularly the GBT. Management authorities have to take into consideration the turbulent history of Ruste and its impacts on local people's mentality and thinking, when establishing national parks and implementing conservation programmes including ecotourism development. Local knowledge, traditions and priorities should be incorporated when implementing any conservation programme in the HSNP and/or developing ecotourism in Ruste, empowering local communities and increasing their environmental knowledge so they can participate in management decisions about natural and cultural resources.

In order to address the out-migration issue, well-paid employment opportunities should be provided for the local community, particularly via support for local agriculture, which is the preferred employment sector among the community. In addition, public services need to be improved. Meanwhile, the intention to relocate the residents in Sakran village needs to be reviewed by the decision-makers. Considering experiences from elsewhere, this is an out-of-date and bound-to-fail policy and must not be implemented here.

It can be concluded that the GBT might not have fully considered all the above issues before proposing ecotourism development in Ruste. Therefore, unless such issues are considered, conservation and ecotourism development in Ruste may be in great jeopardy. Finally, there is a need for more research to assess migration patterns within the Kurdistan region to inform rural development plans.

Chapter 7: Participatory Planning of Ecotourism Sites Using GIS-Based Multiple Criteria Evaluation

7.1 Summary

The ecotourism industry is expanding worldwide and the Kurdistan Region of Iraq intends to develop this industry as part of its sustainable development strategy. The main objective of this research (chapter) is to identify and prioritise potential ecotourism sites (PESs) using Geographic Information System (GIS) and Multiple Criteria Evaluation (MCE). Stakeholders from government, private agencies and NGOs were consulted to gain an understanding of their perspectives on this industry and PESs. Stakeholders were consulted over the criteria that made a site suitable for ecotourism and asked to identify specific sites for ecotourism development. Consultation took place through two stakeholder consultations. The initial consultation was conducted through a workshop using stakeholder consultation techniques inspired by Ketso and were directly followed by a set of semi-structured interviews with some more stakeholders. The follow-up consolation, in the form of interviews, took place two years later. Participants identified a range of criteria as indicators of suitability for ecotourism development, namely: Neo-Assyrian rock-face relief sculptures (NArrs), archaeological sites, natural attractions, rivers and lakes, key biodiversity areas (KBAs), and religious sites. A comfortable regional climate and absence of landmines were further criteria for suitability. Participants in the initial and follow-up consultations suggested 65 and 78 sites respectively that had potential for ecotourism development. Spatial data on each criterion were obtained from government and commercial data providers and MCE used to characterise each site's suitability within a GIS. The methodology adopted and the outcomes achieved suggest that: (1) MCE and GIS were effectively used for the identification of potential ecotourism sites; (2) MCE and GIS are applicable to decision-making in ecotourism development in the context of a country recovering from decades of conflict; and (3) consensus and differences between different stakeholders could be assessed using MCE, and that more consensus decision-making for ecotourism development can be achieved through the participation of different stakeholders in such an MCE and GIS consultative exercise.

7.2 Introduction

7.2.1 Multiple Criteria Evaluation and Ecotourism

GIS and MCE applications have been widely used for tourism (Aminu, 2007; Beedasy and Whyatt, 1999; Yianna and Poulicos, 2002) and ecotourism (Bello-Pineda et al., 2006; Fung and Wong, 2007; Ghahroudi Tali et al., 2012; Van der Merwe and Van Niekerk, 2013) planning in North America, Asia and Africa. However, these applications have seldom been used in countries recovering from conflicts such as Iraq (Bukenya, 2012).

The principal focus of this research is to utilise GIS and MCE techniques as decision-support tools to promote stakeholder participation in site and criteria selection (see section I of 2.3.1).

The main objectives of this study are, therefore, to:

1. Identify and prioritise potential ecotourism sites using GIS and MCE.

2. Evaluate the utility of MCE as a tool for consensus planning and differences between different stakeholders in a conflict affected area.

In addressing these objectives, the study explores the value of iterative consultation with stakeholders. It also develops an alternative approach to the AHP for assessing consistency of stakeholder input and examines the potential use of gravity models as an alternative to distances to nearest features as input criteria.

7.3 Data and Methodology

In this study, an iterative approach to stakeholder consultation for GIS-based MCE analysis was adopted. Figure 48 shows the methods used to collect and analyse the data. An initial stakeholder workshop using consultation techniques inspired by Ketso (February 2012) and a set of semi-structured interviews with stakeholders (March 2012) were used to identify both criteria that defined suitability for ecotourism and specific locations within Kurdistan that might be suitable for development. This informed an initial GIS-based MCE to identify suitable sites for ecotourism development. Following a second consultation two years later (June-July 2014), the GIS-based MCE was revised and the results of the initial and revised MCEs compared.

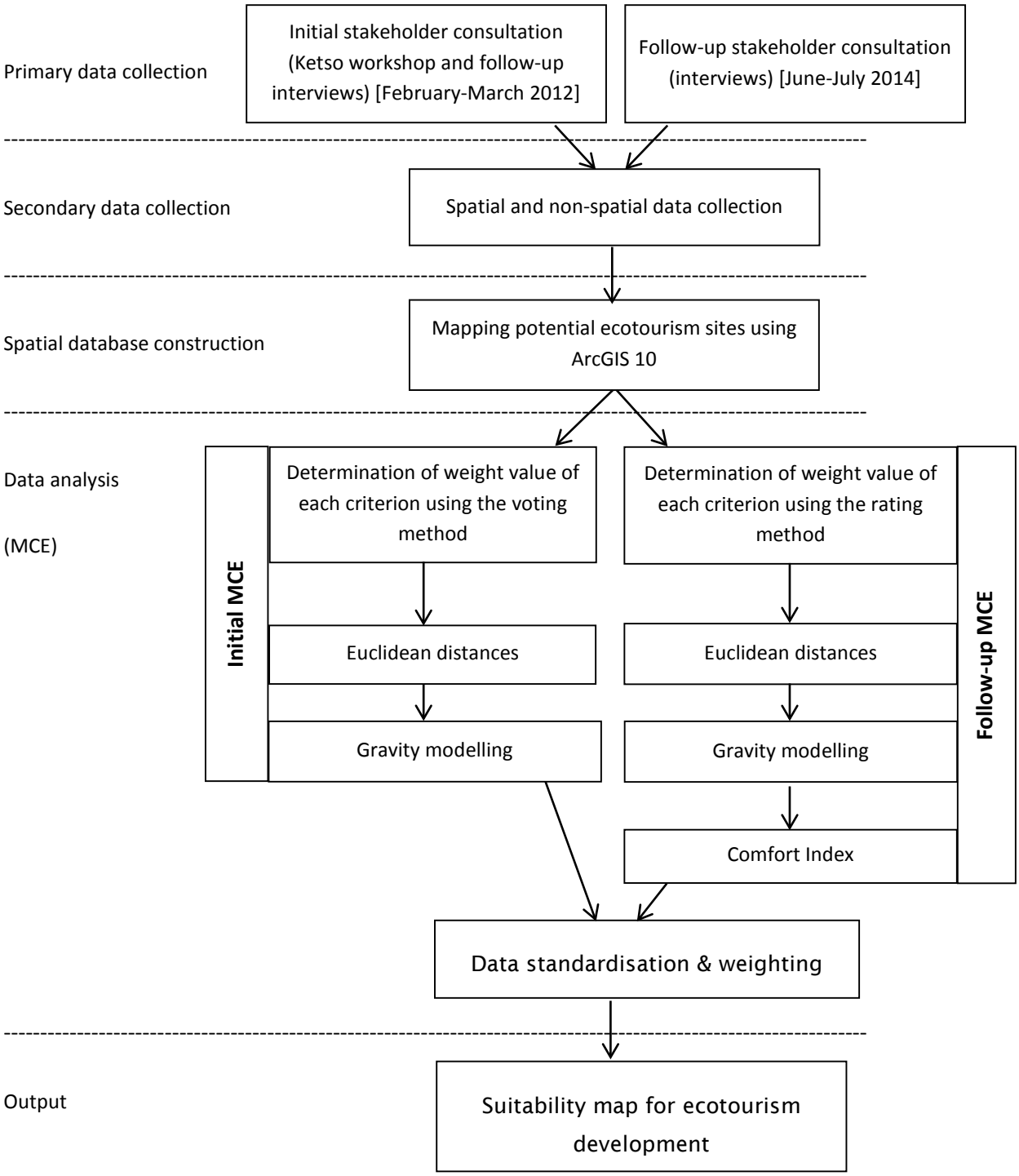


Figure 48: Flowchart of methodology for identifying suitable ecotourism sites in the Kurdistan region of Iraq

7.3.1 Initial Stakeholder Consultation and Data Collection

During a workshop conducted with different stakeholders in February 2012, participants placed cards on a map of the Kurdistan region to choose sites they thought had potential for ecotourism (see section 5.3.1 and Figure 30). Following the workshop, further PESs were identified during follow-up interviews with more ecotourism stakeholders in March 2012 (5.3.2). In total, 20 stakeholders from different private and governmental agencies were consulted (Table 14). Ultimately sites from both consultations were mapped using the ArcMap10 computer software. Workshop and interview participants were also asked to identify criteria that indicate a destination's suitability for ecotourism.

7.3.2 Initial Multiple Criteria Evaluation

Locations of candidate PESs were digitised and mapped. The criteria identified by stakeholders in this initial workshop and survey were then matched against existing spatial data. This entailed grouping some concepts listed by stakeholders together under a single indicator, such as birds and other wildlife under a more general biodiversity criterion. Available secondary data, in the form of either geographical coordinates, maps in PDF format, or GIS digital map layers, were collected from different KRG agencies and private agencies such as the General Board of Tourism [GBT], General Board of Statistics, Directorate of Environment, Directorate of Geological Surveys Directory, Ministry of Planning, Iraqi Kurdistan Mine Action Agency, Warar Organisation, Department of Planning, Nature Iraq [NGO], and Directorate of Archaeology (Appendix 14). However, some of the above sources were reluctant to provide data. Where not already georeferenced, relevant, appropriate data were digitised using ArcMap 10.

Relevant map layers (Table 15) were collated within a geospatial database. For all layers, except the Key Biodiversity Areas (KBAs) criterion which was measured using a gravity modelling approach (described below), Euclidean distances were calculated to the nearest feature within map layers depicting potential ecotourism attractions, amenities, and impediments such as landmines (Figure 49) using ArcMap 10. Here Euclidean distance was used instead of distance through road networks because of a lack of an up-to-date digital road map layer (section 7.5.5).

Rather than calculating Euclidean distance to the nearest KBA (as took place for other criteria), gravity modelling was used to represent a weighted combination of distance to multiple KBAs. Gravity models are used in various social sciences to refer to the modified law of gravity to predict movement of people, information, and commodities between different areas such as cities or countries (Matyas, 1997). Under a gravity modelling approach, the gravitational potential of an

origin depends on the number of surrounding sites, the attractiveness of each destination, and the distance from the origin to each site. Here, in estimating the attractiveness of each KBA, it was assumed that KBAs having more positive qualities than threats to conservation would attract more visitors than areas having less positive qualities [or having more threats]. The type of positive qualities and threats of each KBA are shown in Appendix 18 as a survey produced by Nature Iraq NGO report (Ararat et al., 2009). The attractiveness of each KBA was determined by subtracting the number of threats (e.g. oil or other pollution; agriculture; removing of plant cover or grazing; constructions and roads; garbage and/or sewage; hunting; overfishing and/or electrofishing) from the number positive qualities (e.g. locals/officials willing to help in conservation efforts; and hunting/fishing ban) represented as 'Mass'. Since there were generally more threats than positive qualities, the lowest resultant score was (-3). Since a gravity model requires attractiveness to be zero or greater, three was therefore added to all scores. The attractiveness of each KBA (Mass) was then divided by the distance squared between the KBA and a potential ecotourism site (PES), as shown in the following equation:

$$G = M/d^2$$

Where, (G) = gravitational 'pull', (M) = mass, and (d) = distance between the PES and KBA.

The distance between each PES and all the KGAs was calculated by using the 'Point distance' tool in ArcMap 10. The final gravity model for each PES was calculated from the sum of gravitational 'pull' of each PED and all the KBAs, as follows:

$$A_{i=\sum_1^{35} G_j}$$

Where, (Ai) = the sum of gravity model for each PES, Gj = gravitational 'pull' for KBA i (with there being 35 KBAs).

In total, seven digital map layers were produced representing these criteria.

Before combining each layer into a single index, all data values from the Euclidean distance analysis were range-standardised (Voogd, 1983; Carver, 1991) by subtracting the minimum value for each map layer and then dividing by the range (i.e. the maximum minus minimum value) for each layer. Range-standardisation was used here because it preserves the distribution of the underlying data without requiring them to be normally distributed (Carver, 1991). This kind of standardisation is expressed as follows:

$$\text{Standardised score} = \frac{\text{raw score} - \text{minimum raw score}}{\text{maximum raw score} - \text{minimum raw score}}$$

Standardised scores lie between 0 (worst score) and 1 (best score). To ensure that high standardised values consistently referred to greater suitability, standardised scores were inverted for all layers except distance to landmines, where suitability increased rather than decreased with distance. Evaluating a matrix purely on the basis of standardised criterion scores might be considered unrealistic because different criteria have different levels of importance (Carver, 1991). Therefore, a weighting for each criterion was calculated based on the combined number of stakeholder votes it obtained during the Ketso-derived workshop and follow-up interviews.

Three criteria suggested by some participants, including distance to accommodation, roads and distance from the Kurdistan-Turkey international border (associated with political insecurity), were not included in the MCE analysis because of lack of suitable spatial data. Although some accommodation (245 hotels and 97 motels) was listed by the General Board of Tourism (http://kurdistantour.net/site/maps/) and others (57 hotels and motels) by MapCruzin (http://www.mapcruzin.com), these tourism accommodation inventories omitted at least some rural accommodation facilities known to the researcher. The website also omitted accommodation in some cities and towns such as Amedi and Halapja, the two potential ecotourism destinations suggested by the participants. The road network was excluded from the subsequent MCE because available data, such as the map layers from DIVA-GIS (http://www.diva-gis.org/datadown) were considered to be outdated and incomplete when presented to Ministry of Planning staff. Distance to the Turkish border was excluded because following the preliminary ecotourism consultation, a Turkey-Kurdistan Worker Party (PKK) peace process was initiated in May 2013 which aimed to resolve the Turkish-Kurdish conflict (Christie-Miller, 2013).

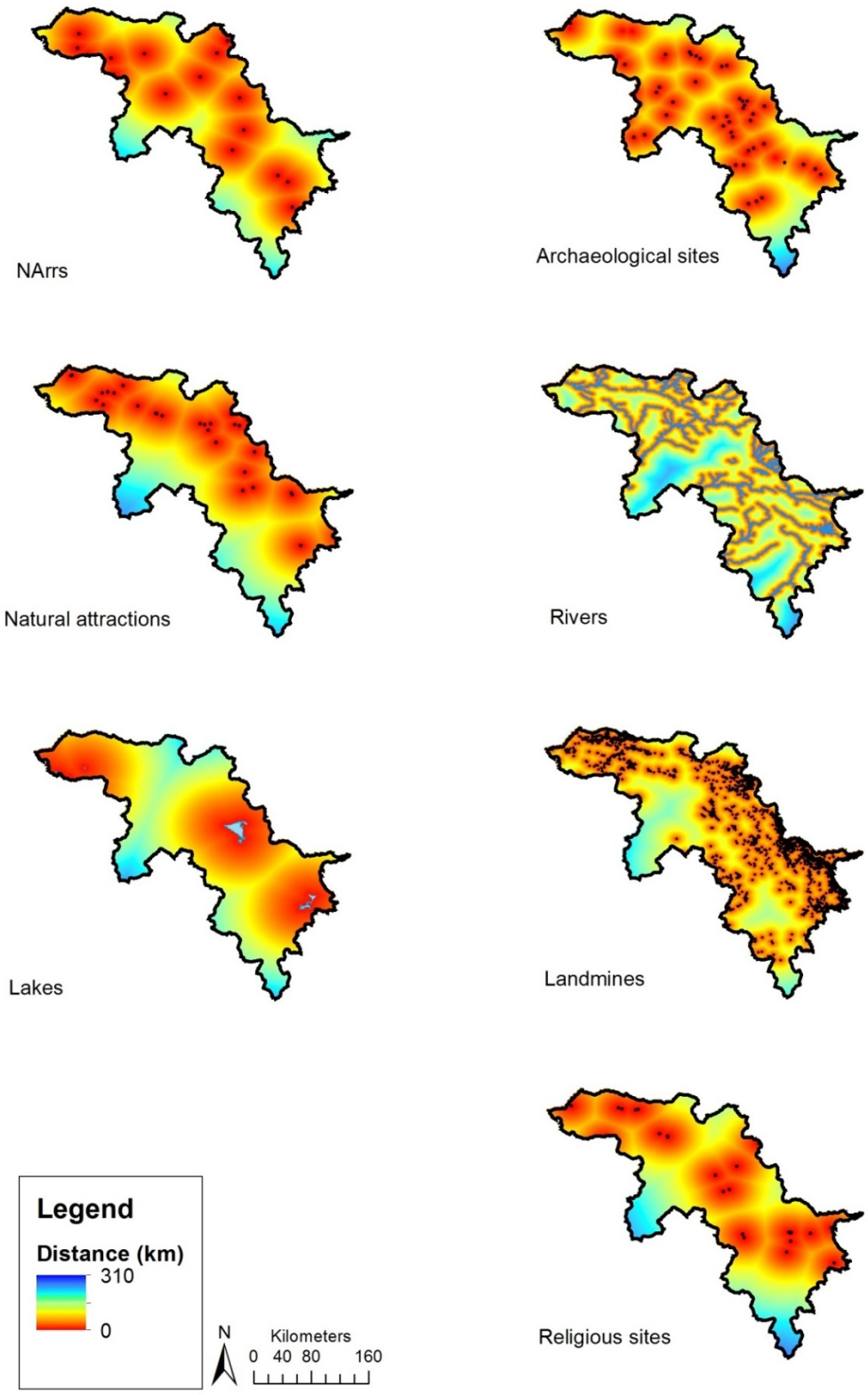


Figure 49: Map layers showing the Euclidean distances from particular types of feature for each criterion.

7.3.3 Follow-up and Extended Stakeholder Consultation

In June-July 2014, the 20 participants from the initial workshop and survey (Table 14) were contacted again by phone or over Skype and their informed consent obtained to participate in a follow-up study. Seven of the original participants either refused or were unavailable to participate, namely two local community members (Akre and Barzan), a private sector tour operator who had changed employment, two from academia, and two from government agencies. These last two stakeholders suggested other members of staff in their agencies to be interviewed. Those who agreed to take part were then emailed the following documents: a questionnaire concerning potential ecotourism destinations and their characteristics (Appendix 15) and a map of potential ecotourism sites (Appendix 16) either identified through the earlier consultation or designated by the GBT. Interviews were conducted by phone or Skype.

Respondents were asked to highlight any potential ecotourism site(s) on the map that had either been omitted or whose selection they disagreed with, thereby generating a revised list of such sites. They were also asked to review the criteria suggested by the participants in the previous consultation exercise, together with the associated map layers used to represent each criterion. An additional criterion 'distance to international airports' was added to the questionnaire, even though it was not suggested by any participants. This criterion was added firstly, to validate the appropriateness of the criteria given by the participants in the initial consultation and secondly, because this seemed a plausible potentially important criterion that the participants might have missed in the initial consultation (Prideaux, 2000).

The resultant revised list of criteria were rated by each participant on a 7-point Likert scale ranging from least important [1] to most important [7]. A Likert-based rating method was chosen because previous work had suggested that respondents found this method more straightforward than more complex alternatives, such as the fixed point scoring, ordinal ranking and Analytical Hierarchy Processes (Hajkowicz et al., 2000; Tecle et al., 1988). Respondents were also asked whether they thought there were specific thresholds, for each map layer mentioned above, at which sites become unsuitable for ecotourism, or whether suitability increased linearly with each criterion.

Following snowball sampling through referral by the initial workshop participants, it was apparent that the private sector and to a lesser extent civil society bodies were under-represented among the participants consulted, despite being ecotourism stakeholders according to Choi and Sirakaya (2006), Eadens (2009), and Lu and Bao (2004). An expanded set of new participants were therefore sampled and also interviewed using the follow-up survey protocol. These participants included an oil company worker, chosen because some participants in the initial survey noted a

need to control the environmental impacts of the oil industry in developing ecotourism. A second participant was from an international tour operator company, since no private sector contacts were recommended during 'snowballing'. Two other such tour operators declined to be interviewed. Since respondents in the initial survey had noted potential religious restrictions on tourism development (e.g. on alcohol consumption or inter-mingling of genders), a person from the organisation of Religious Endowments (a local religious clerk), a civil society body that manages Muslim holy sites and assets, was selected for interview.

Table 14: Characteristics of stakeholders consulted in a participatory workshop and follow-up interviews

	Sector		Initial consultation		Follow-up consultation	
			Workshop	Interviews	Iterative	New
1	Civil society	Environmental NGO		1	1	
2		Warar Development & Growth Org.		1	1	
3		Religious (local clerk)				1
4		Local community		3	1	
5	Private bodies	Local tour operator		2	1	
6		International tour operator				1
7		Accommodation (Hotel)				1
8		Oil Extractor				1
9		Vendor*				1
10	Governmental agencies	Environmental Protection Forces	1		1	
11		General Directorate of Environment	2		1	
12		General Directorate of Tourism	2		1	
13		Institute of Planning		1	1	
14		General Board of Tourism		1		1
15		General Board of Investment		1	1	
16		Duhok Governorate		1	1	
17		General Directorate of Municipalities		1		1
18		Directory of Archaeology		1	1	
19		National Security Forces				1
20		Forestry and wildlife Research service				1
21		Social welfare services				1
22		Health care sector (Ministry of Health)				1
23		General Board of Statistics				1
24		Education sector (Ministry of Education)				1
25		Geology Department				1
26	Academia (universities)		4	1	1	1

* A representative of the 'Qabana' wholesaler group

7.3.4 Follow-up Multiple Criteria Evaluation

The map layers used for the initial MCE were revised in the light of the follow-up consultation (section 7.3.1). As with the initial MCE Euclidean distances were calculated from features in each of these map layers (Figure 49). Similarly, the attractiveness of KBAs (Masses) were calculated versus all the PESs to obtain their gravitational 'pulls'.

However, the *climate and human comfort* criterion was measured using a different methodology. Since some participants from the follow-up consultation mentioned climate as an important criterion, the Human Comfort Index (Terjung, 1968) was used to represent this. Terjung's Comfort Index attempts to integrate the psychophysiological sensations of the average person in terms of temperature and humidity. The closer the combination of air temperature and relative humidity for a site falls to zone (0) of the Comfort Index nomograph (Figure 50), the more suitable the site is for ecotourism as the more comfortable a person will feel (Terjung, 1968). Areas with negative and positive comfort zone numbers are considered to be uncomfortably cool or warm respectively. This was calculated for the coldest month (January) and warmest month (July), based on air temperature and relative humidity.

Gridded average air temperature data for 1950-2000 were obtained from WorldClim (http://www.worldclim.org/tiles.php) with 30 arc-second spatial resolution. Gridded average relative humidity data for July 1983 – June 2005 were obtained from OpenEI (http:// en.openei.org/datasets/taxonomy/term/543) with 10 minute spatial resolution.

Gridded data were reclassified in ArcMap 10 and the results for each potential ecotourism site were then compared to the comfort zones (+4, +3, +2, +1, 0, -1, -2, -3, etc.) shown in the Terjung psychrometric chart shown in Figure 50 (Terjung, 1968, p. 120). For the MCE analysis, the comfort index for January was added to the one for July and the sum was range-standardised.

All data values from the Euclidean distance analysis were again range-standardised, but the method for deriving weights was revised. Instead of the number of votes being used for the initial MCE, criterion weights were based on the mean Likert rating across all participants (Hajkowicz et al., 2000). When a participant suggested the removal of a criterion, it scored zero. Standardised criterion scores for all PESs were multiplied by the mean weight obtained across all participants to produce the final suitability index for the PESs.

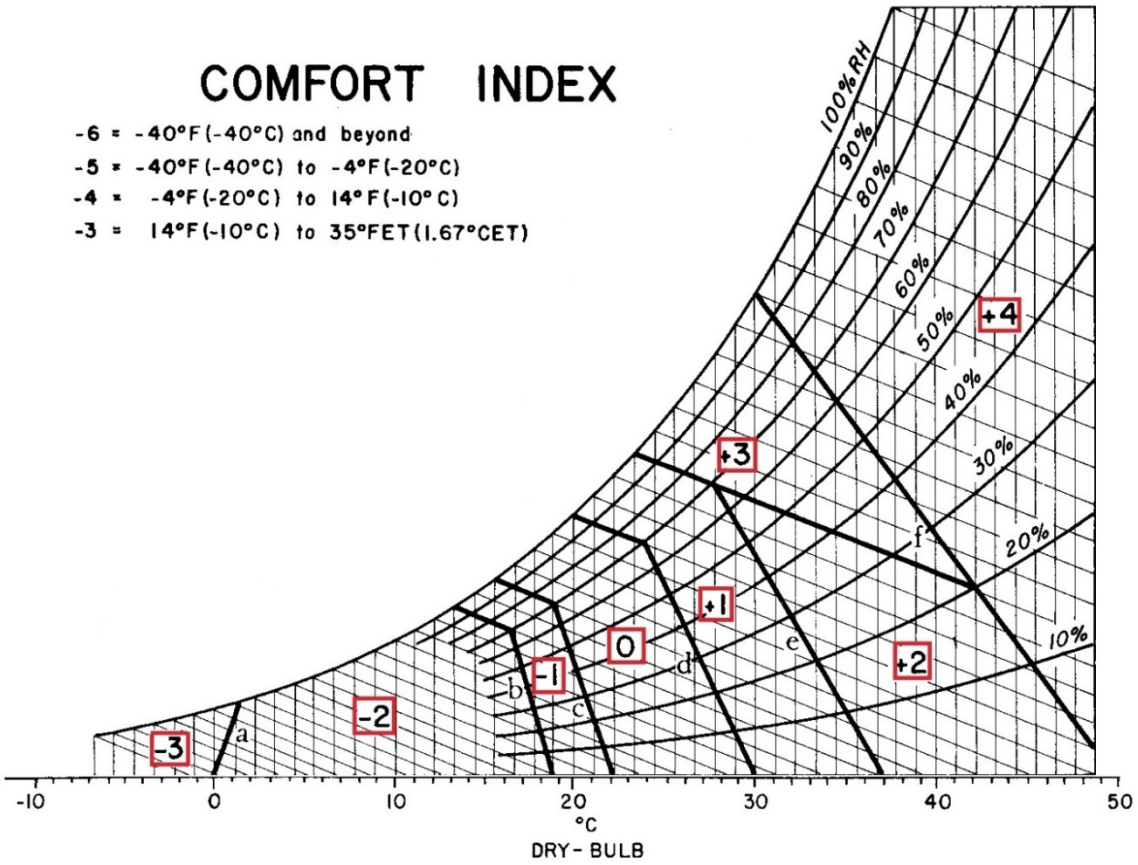


Figure 50: Nomograph of Comfort Index. Symbols of Index: -6, ultra cold; -5, extremely cold; -4, very cold; -3, cold; -2, keen; -1, cool; 0, mild; +1, warm; +2, hot; +3, sultry; +4, extremely hot. ET = Effective temperature; RH = relative humidity. a = 1.7°CET; b = 15.6°CET; c = 17.8°CET; d = 22.2°CET; e = 25.6°CET;f = 30.0°CET. Source: Terjung (1968, p. 120).

Some criteria were not considered for MCE analysis because relevant spatial data were either out of date and/or incomplete. For tourism viewpoints, viewpoint data for the Kurdistan region in OpenStreetMap were incomplete (https://www.openstreetmap.org). The criterion of public transport was also not considered, as there is no reliable public transport system in the Kurdistan region and the limited, localised bus networks run irregularly within and between cities only (ITG, 2014). In terms of other relevant facilities, health centres were excluded since those listed by the General Board of Tourism (http://kurdistantour.net/site/maps/) were only recorded for two main cities (Erbil and Sulimani) excluding all other cities, towns and villages, whilst places of worship, police stations, fuel stations, and restaurants were recorded only sporadically in OpenStreetMap (https://www.openstreetmap.org). Population density was not included because there has not been a population census of the Kurdistan region since 1997 (GEOHIVE, 2014; KRSO, 2014).

In total, nine digital map layers were produced representing the criteria for the follow-up MCE analysis.

7.3.5 Assessment of Consistency between Proposed Destinations and Ecotourism Criteria

In order to check whether the list of proposed destinations by the stakeholders was consistent with the list of criteria they suggested, MCE-derived scores were calculated for a second set of sites in addition to those proposed by the stakeholders, based on the same criteria. For this purpose, MCE scores were calculated for 58 accommodation locations (hotels and motels), listed by MapCruzin (http://www.mapcruzin.com), using the same criteria, map layers, weights, and process as for the proposed ecotourism destinations. MCE scores for these 58 sites were then compared to those for the PESs. This process was repeated using the initial and revised MCE procedure.

7.4 Results

7.4.1 Initial Stakeholder Consultation and MCE:

During the initial stakeholder consultation 65 destinations were suggested as having potential for ecotourism development, as shown in Figure 34. Meanwhile, the following seven criteria were considered as important measurable characteristics for developing ecotourism: Neo-Assyrian rock-face relief sculptures (NArrs) [built in the 8th – 7th BC], archaeological sites, natural attractions, rivers, lakes, KBAs, and existence of landmines. Table 15 shows these criteria and the number of votes each obtained during the workshop and the follow-up interviews. For example, the NArrs criterion was only suggested by one participant during the interviews, while concepts related to cultural heritage and archaeology obtained a total of 34 votes from the participants from the workshop (12 votes) and interviews (22 votes).

All 65 proposed destinations were scored according to the criteria and divided equally into five groups of suitability as shown in Figure 52. It is clear from the figure that the 13 most suitable sites (i.e the highest MCE scores, with a red colour) are mostly located near Amedi (about 8 sites) in Duhok province. In contrast, all three sites located outside the official Kurdistan regional boundary (Tilkef, Tilafar, and Shingar) have low suitability scores. Of the sites proposed by the GBT for ecotourism development (section 4.3) Amedi obtained the highest MCE score [red] while Halapja and Ruste fall within the second [yellow] and third [bright green] groups of suitability respectively (Figure 52).

Figure 51 shows the KBAs with their mass values (ecotourism attractiveness) against the PESs, as calculated in section 7.3.2. Here it is apparent that of the 35 KBA sites only three have a mass value of 3 and the rest have values of 0, 1 or 2. Figure 51 shows that in north of Kurdistan a cluster of PESs, including Amedi, are located very near a group of KBAs including one with the highest mass score. In contrast, PESs outside the Kurdistan region, i.e. Shingar, Tilafar and Tilkef, are far away from the KBAs with Shingar being the farthest.

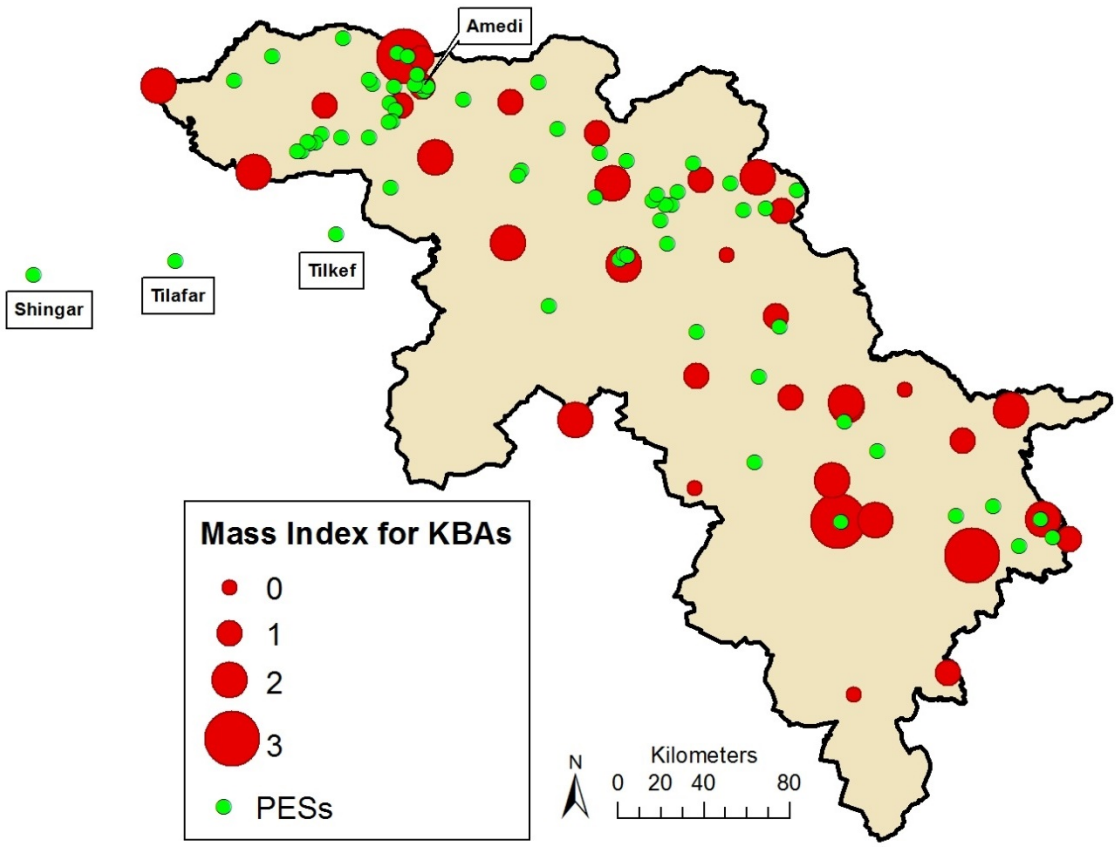


Figure 51: Mass Index for Kurdistan Biodiversity Areas (KBAs), as used to calculate potential natural heritage value using a gravity model for each potential ecotourism site (PES) for the initial consultation

Table 15: Criteria for GIS-based Multiple Criteria Evaluation (MCE) from the initial consultation

Criteria	Data set	No. of votes (weight)/23 participants (9 Workshop + 11 Interviews + 3 Local community)		
		Workshop	Interview	Total
Distance to NArrs	World Digital Library (http://www.wdl.org/en/item/212/)	0	1	1
Distance to Archaeological sites	World Digital Library (http://www.wdl.org/en/item/212/) and Directory of Archaeology	12	22	34
Distance to Natural Attractions (Resorts)	General Board of Tourism in Erbil (http://kurdistantour.net/site/maps/)	4	7	12
Distance to Rivers	Directorate of Geological Surveys in Erbil	4	6	10
Distance to Lakes	Directorate of Geological Surveys in Erbil	5	5	10
Distance to KBAs	Nature Iraq report on key biodiversity areas (Ararat et al., 2009)	3	19	22
Distance to Landmines	Iraqi Kurdistan Mine Action Agency in Erbil	3	3	6
Distance to International Border (Kurdistan-Turkey)*	n/a	1	7	8
Distance to Accommodation*	n/a	0	4	4
Distance to Roads*	n/a	0	3	3

* The criteria were not used due to lack of suitable spatial data or subsequent political events

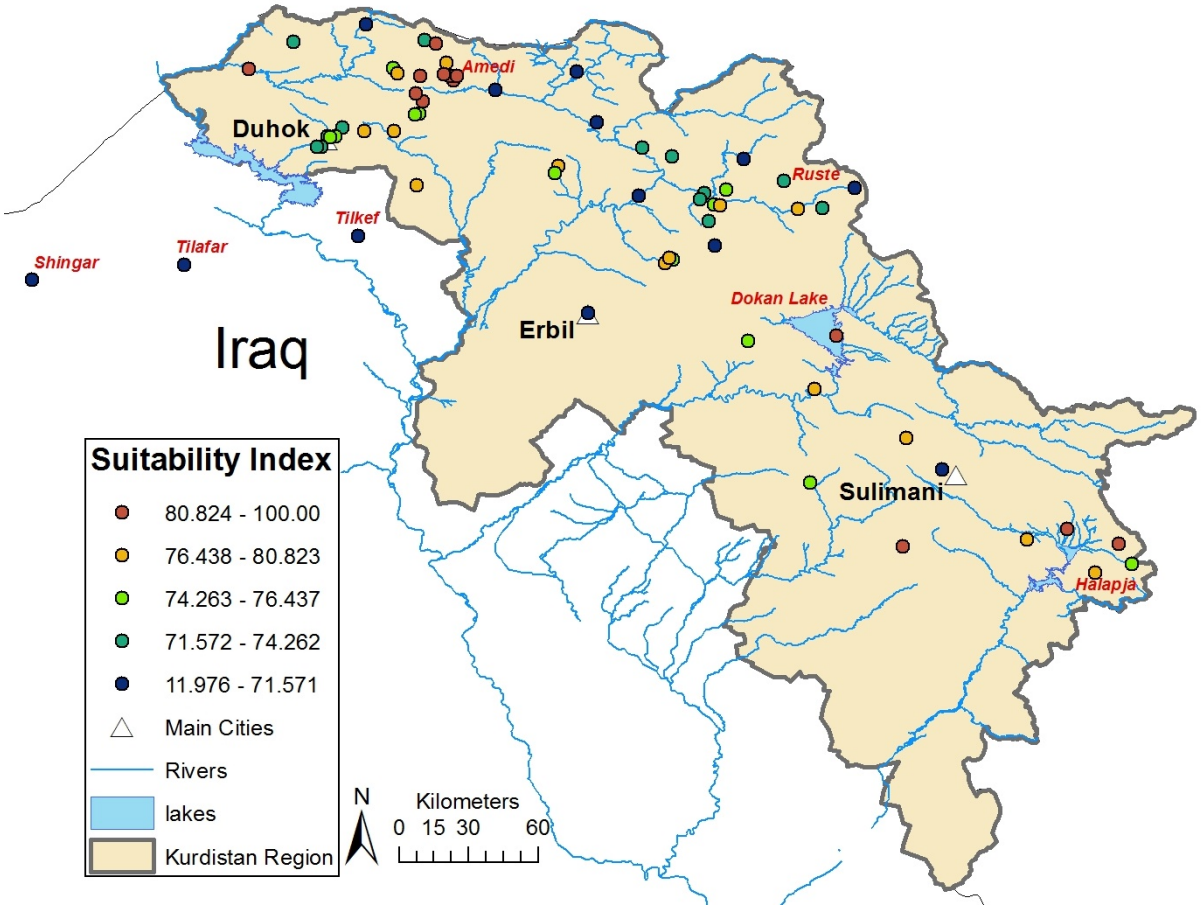


Figure 52: Potential ecotourism destinations and their MCE scores from the initial consultation

7.4.2 Follow-up Stakeholder Consultation and MCE

In the follow-up stakeholder consultation, 78 destinations were considered as having potential for ecotourism development. Respondents suggested the removal of 26 of the original 65 PES from the initial stakeholder consultation, while 55 new, additional potential ecotourism sites were proposed. The PESs proposed in the initial consultation and located within the disputed areas (as seen in Figure 52), namely Tilkef, Tilafar and Shingar, obtained 4, 4 and 2 votes respectively for removal (Figure 56). Sites such as the historic Dalal Bridge in Zakho and the Sarchinar leisure resort in Sulimani were also nominated for removal because of concerns over their heritage value. Meanwhile, sites such as Jerwan, one of the earliest known aqueducts, and Khinis, a series of rock carvings in relief depicting the principal Assyrian gods, were suggested by two and three stakeholders respectively as potential ecotourism sites.

In addition to retaining all criteria from the initial stakeholder consultation, participants proposed the following 10 new criteria for developing ecotourism: religious sites (holy sites), health service access, nature reserves, viewpoints, transportation, climatic factors, public services, police bases,

sites of worship (mosques), and population density (Table 16). Likert scores for most criteria varied between participants, as shown by the ranges of scores in this table. Whilst transportation access was only suggested by two participants, once proposed, it was considered important by all participants. Similarly, NArrs scored on average 4.2, despite only one participant from the initial consultation proposing this criterion. 22 participants voted for removal of distance to international border (Kurdistan-Turkey). All participants suggested that the distance to airports (the criterion not proposed by any of the stakeholders but added to the questionnaire by the researcher) should be dropped.

Differences are apparent in the magnitude of criteria votes in the initial consultation and average Likert scores from the follow-up consultation. For example archaeological sites gained 34 votes, compared to 1 vote for NArrs and 6 votes for landmines. In contrast, these three criteria had broadly similar average Likert scores in the follow-up consultation, as shown in Table 16.

Furthermore, some of the participants also voted for threshold effect but with quite a wide range of the effect between different voters. For example, 16 participants voted for threshold effect for existence of transportation at average of (8.2) kilometres with a range of (4-15). Also out of 26 participants who suggested NArrs only 8 voted for its threshold effect at average of (8.3) kilometres with a range of (1-20). While some participants suggested thresholds at which criteria became unimportant for ecotourism suitability, these thresholds were not, however, used for the MCE analysis. This was because in most cases, fewer than half of the participants set a threshold and there was wide variation in the thresholds given by different participants as shown in Table 16.

Overall, the wide range of criteria weights and their threshold effects, and the suggestion of dropping some PESs (initially proposed by the participants in the initial consultation) indicate the extent of disagreement between stakeholders, and hence a lack of consensus. In both consultations, the criteria selected by the stakeholders and the rating they received were greatly affected by the participants' experience and background, which included a wide range of professions including biologists, civil engineers, physicians, teachers, etc. The effect of this is apparent in Table 16 where, for the 'landmines' criterion for example, there are large differences between different stakeholders' Likert scores and threshold level results (1-7 and 1-40km respectively).

Despite being considered important for ecotourism development, criteria such as distance to road networks, international border [Kurdistan-Turkey], accommodation, public transportation (buses and trains), tourism viewpoints, health services centres, public services, police points, worship places, and population density were all not used for MCE (see 7.3.4).

Table 16: criteria for GIS-based MCE from follow-up consultation

Criteria		Data set	No. of voters	Likert score (1-7)		Votes for removal(3)	Votes for threshold effect	Threshold level (km)	
				Average	Range			Average	Range
1	Existence of Transportation(2)		24	6.1	4-7	0	16	8.2	4-15
2	Dist. to KBAs	Table 15	27	6	3-7	0	10	6.5	1-15
3	Dist. to landmines	Table 15	27	6	1-7	0	15	5.9	1-40
4	Dist. to Archaeological sites	Table 15	27	5.9	2-7	0	11	7.2	1-20
5	Dist. to Police points		27	5.8	4-7	0	13	10.6	3-15
6	Dist. to Natural Attractions	Table 15	27	5.6	4-7	0	13	11	3-25
7	Dist. to Roads(2)		27	5.5	4-7	0	12	3.9	1-10
8	Dist. to Accommodations(2)		27	5.4	1-7	0	16	13	8-20
9	Dist. to lakes	Table 15	27	5.1	2-7	0	11	11	1-35
10	Dist. to Public services(2)		27	5	3-6	0	8	9.1	5-20
11	Dist. to Rivers	Table 15	26	5.2	0-7	1	12	7.2	1-20
12	Dist. to Nature reserves(2)		27	4.8	2-7	0	8	21	10-30
13	Dist. to Health services(2)		27	4.8	3-7	0	18	11.1	5-35
14	Dist. to Tourism viewpoints(2)		27	4.7	2-7	0	7	12	5-30
15	Dist. to Religious sites(1)	GBT website	27	4.8	3-7	0	5	9.2	1-30
16	Dist. to NArrs	Table 15	26	4.2	0-7	1	8	8.3	1-20
17	Climatic factors(1)	World Clime and OpenEI	24	3.8	0-5	3	n/a	n/a	n/a
18	Dist. to Population density(2)		21	3.9	3-7	6	8	23.3	10-50
19	Dist. to Int. Border (Kurdistan-Turkey) (2)		5	2.4	0-7	22	4	12.5	5-20
20	Dist. to Worship places(2)		20	2.4	0-5	7	11	11	7-15
21	Dist. to Airports		0	0		27	0	n/a	n/a

(1) criteria suggested during the follow-up consultation and incorporated into MCE
(2) criteria suggested during the follow-up consultation but not incorporated into MCE
(3) n = 27

After calculating the mass values for the KBAs (section 7.3.2) they were measured against the PESs suggested in the follow-up consultation similar to the case for the PESs from the initial consultation (section 7.4.1). Figure 53 shows that to the south of Kurdistan three nearby PESs, namely: Awa Spi, Qaradakh and Qopi Qerakh are located within three KBAs, one each, including one KBA with the highest mass score. Relative to Figure 51 which shows the equivalent data from the initial consultation, the distribution of PESs has changed with some sites removed, such as Shingar, Tilafar and Tilkef (Figure 51) and some other sites added, such as Awa Spi and Qopi Qerakh (Figure 53).

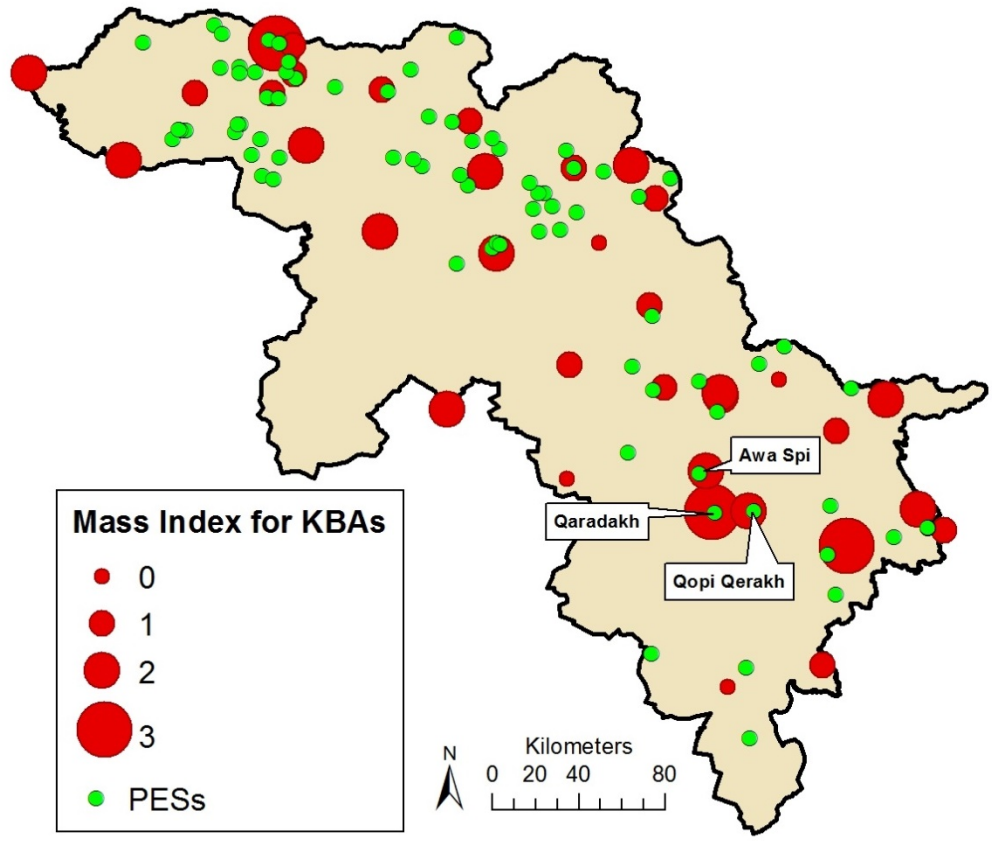


Figure 53: Mass Index for Kurdistan Biodiversity Areas (KBAs), as used to calculate potential natural heritage value using a gravity model for each potential ecotourism site (PES) for the follow-up consultation

For the climate criterion for July, all Kurdish areas lay in Terjung's hot [+2] and warm [+1] Human Comfort zones. Figure 54 shows only a few sites are within zone [+1], such as Ruste, Hassan Bag Mountain, Karokh Mountain and Haji Omaran to the north-east and Kista Village to the north. In Contrast, in January all the Kurdish areas lay in Terjung's cold [-3] and very cold [-4] Human Comfort zones. Figure 55 shows that only Karokh Mountain is within zone [-4].

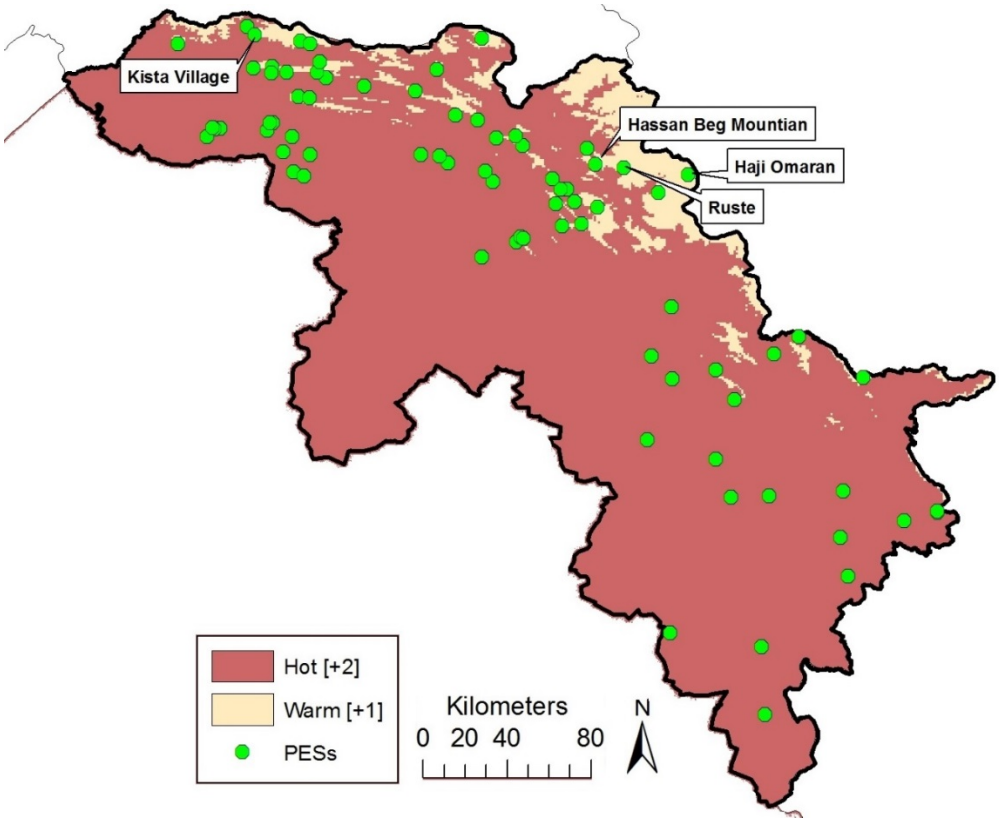


Figure 54: Terjung's Human Comfort Zones [+2] and [+1] for July and the Potential Ecotourism Sites (PESs)

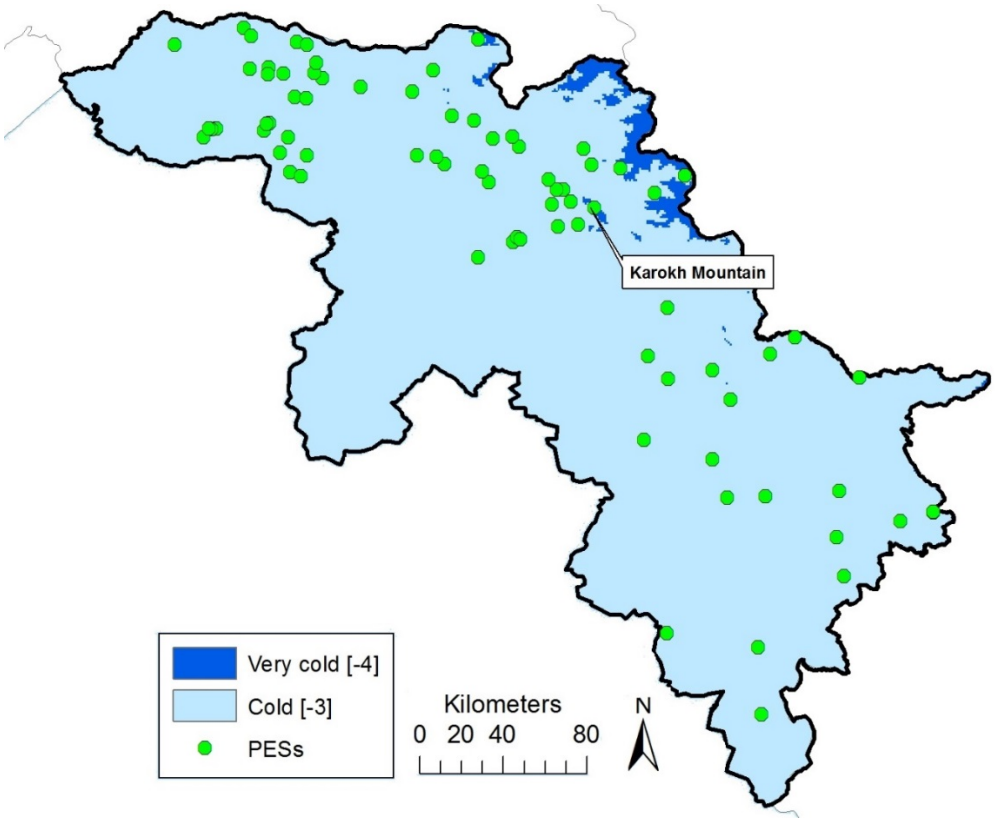


Figure 55: Terjung's Human Comfort Zones [-4] and [-3] for January and the Potential Ecotourism Sites (PESs)

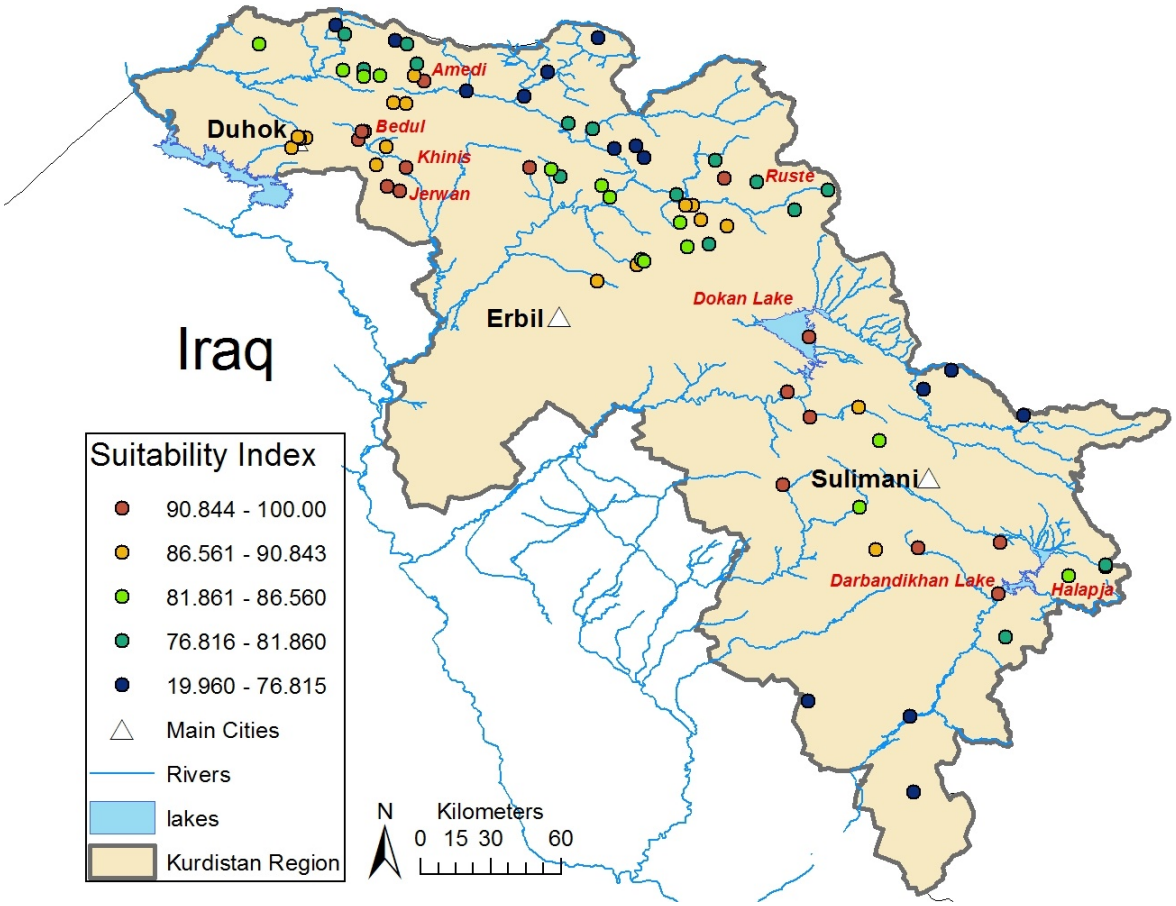


Figure 56: Revised potential ecotourism destinations and their MCE scores from the follow-up consultation

Proposed destinations were again equally divided into five groups according to suitability as shown in Figure 56. Destinations' scores changed considerably between the two MCE phases. A group of highly scoring sites such as Khinis, Jerwan and Bedul are shown to the east of Duhok which are not apparent within the initial MCE map (Figure 52). Conversely, some of the top 13 highest scored sites, in the initial MCE map, such as Haspa Valley, Bare Sile, Sarsink, Ahmadawa and Inishki were dropped whilst others such as Bshesh Mountain, Gara Mountain, Safin Mountaion, Salahadeen, Shaqlawa, and Hawraman scored much lower in the follow-up evaluation. Dokan Lake retained its high MCE score during both phases of the MCE analysis. Regarding the sites proposed by the GBT for ecotourism development (section 4.3) Amedi also regained its high MCE score [red], while Halapja [bright green] and Ruste [dark green] scored lower by one level each in the follow-up MCE compared to the initial MCE.

7.4.3 Assessment of Respondents' Consistency MCE

Figure 57 and Figure 58 show the MCE suitability scores for the respondents' proposed PESs versus the accommodation units from the initial and follow-up consultations respectively. The destinations proposed by the participants, in both consultations, have higher MCE scores than the accommodation units chosen by the researcher. For example, 86% of the PESs from the initial consultation (n=65) have suitability scores of over 70, with the majority in the range 70-80. In contrast, 80% of the accommodation sites (n=58) have suitability scores of less than 60 with the majority in the range 50-60 (Figure 57). In the follow-up consultation 70% of the PESs (n=78) have suitability scores over 80, with the majority in the range 80-90. In contrast, 88% of the accommodation sites have suitability scores of less than 80 with the majority in the range 50-60 (Figure 58).

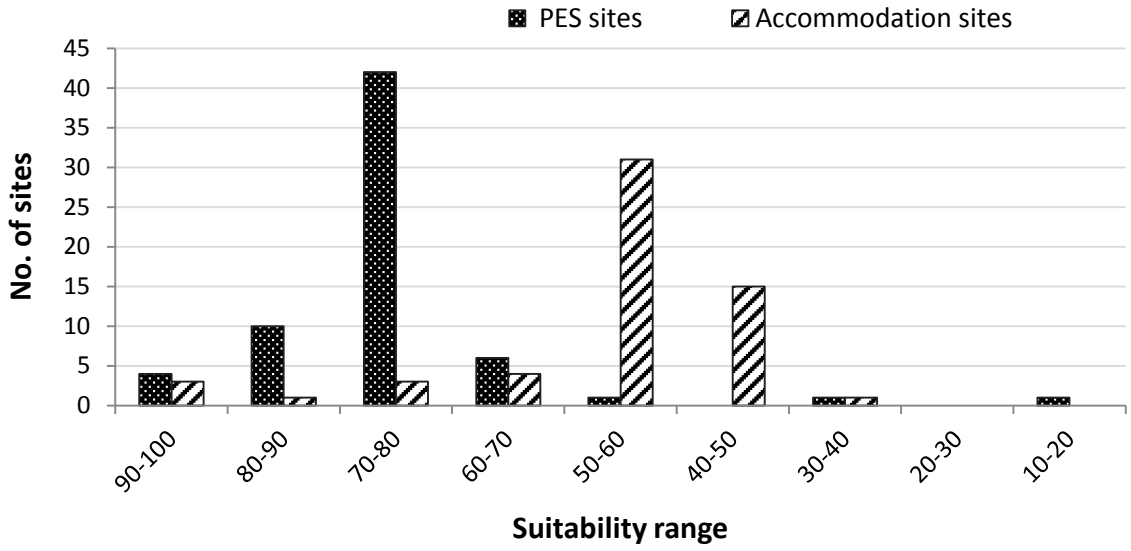


Figure 57: Frequency of different suitability (MCE) scores between PESs proposed by stakeholder in the initial consultation and sites selected by the researcher (accommodation units).

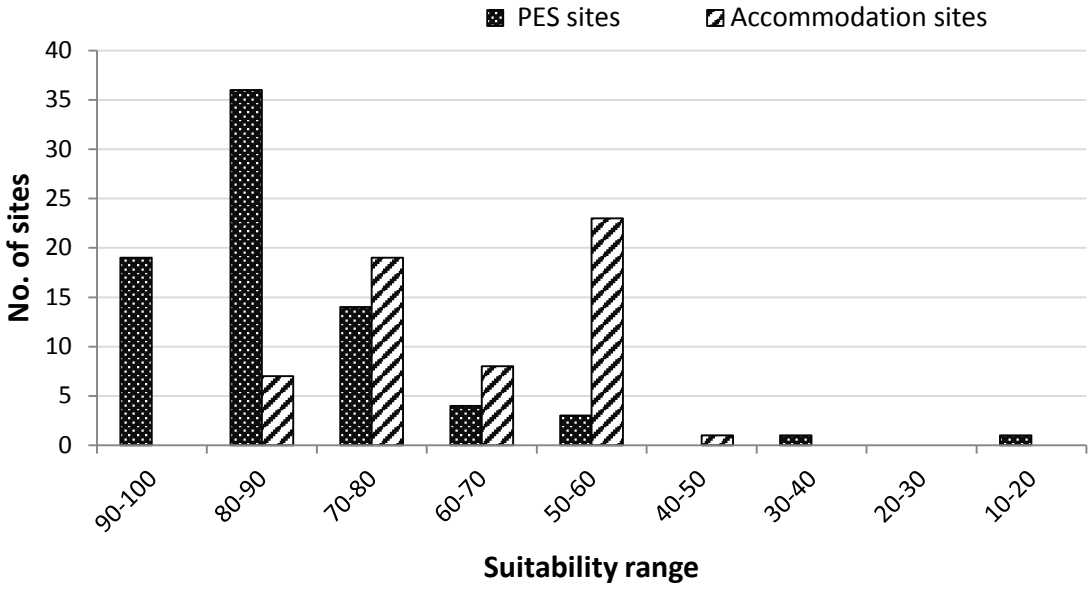


Figure 58: Frequency of different suitability (MCE) scores between PESs proposed by stakeholder in the follow-up consultation and sites selected by the researcher (accommodation units).

7.5 Discussion

Whilst Multi-criteria Decision Analysis and GIS has been used in the Kurdistan region of Iraq to examine suitability for human settlement in Semil and Amedi districts (Abdullah, 2014), no study has been conducted to date that uses MCE with GIS to identify suitable ecotourism sites in the region. In neighbouring Iran, however, GIS-based MCE has been used to identify suitable areas for ecotourism in Qesham Island (Dashti et al., 2013) and Miankaleh Peninsula (Ghahroudi Tali et al., 2012). The reasons behind the absence of studies in Kurdistan are many but include the scientific isolation that the whole country has experienced for decades due to wars and internal political conflicts. This study therefore has addressed the absence of research work in this field by using GIS-based MCE in participatory planning to identify and prioritise potential ecotourism destinations and, furthermore, to assess the utility of MCE as a tool for consensus planning and differences between different stakeholders.

7.5.1 Destinations and their Potential for Ecotourism Development

Ecotourism destinations in Kurdistan are being promoted by the General Board of Tourism (GBT) through their website (http://kurdistantour.net/site/maps/) and leaflets, by international news channels such as the BBC (http://www.bbc.co.uk/news/world-middle-east-11392098) or by international tour operators (e.g. http://www.the-traveller.co.uk/). However, the sites selected have not been systematically evaluated for their suitability for ecotourism development. In this study, sites could be prioritised according to measurable and transparent criteria using MCE with GIS and stakeholders' opinions. The approach here entailed iterative consultation whereby the decision- makers' point of view was revised and consolidated, with ongoing sharing of information between different stakeholders (Finch et al., 2009), following recommended practice and thereby increasing confidence in outputs. Furthermore, ecotourism destinations nominated by participants had consistently higher MCE scores than a set of accommodation locations chosen without reference to stakeholders (Sections 6.3.5 and 6.4.3), suggesting respondents provided logically coherent input to the MCE.

Of the three sites proposed by the GBT for ecotourism development (section 2.4.5), Amedi fell in the first suitability group with the highest MCE score whilst Ruste obtained the lowest during both phases of the MCE analysis. Despite this finding, the GBT only approved Ruste to be developed as an ecotourism destination. Located near to Ruste (approximately 12 kilometres away), Hassan Bag Mountain, a potential ecotourism site proposed by participants in the follow-up consultation, obtained a higher MCE score than Ruste but was not proposed by the GBT for ecotourism

development. This probably indicates that GBT decision-making in this regard was not based on any evaluation of multiple criteria and this may create some potential conflicts during and after ecotourism development in Ruste. In other ecotourism development contexts, however, such as in Iran (Zarkesh et al., 2011), Uganda (Bukenya, 2012) and India (Kumari et al., 2010) extensive efforts have been made to use MCE to integrate conflict goals when selecting sites for successful ecotourism development.

Whilst there was near-consensus among participants in both consultations in voting for the KBAs, however, it was noticeable that none of the participants had considered local communities' involvement and needs. For example, no participant considered local communities' potential role in protecting areas for sustainable tourism (Jamal and Stronza, 2009; Krüger, 2005), their empowerment (Scheyvens, 1999) and/or local economic benefits (Wunder, 2000) as criteria. This underpins the results obtained in the initial stakeholder consultation (Section 4.5.7) which indicated that local communities were generally ignored as stakeholders in the ecotourism industry (Coria and Calfucura, 2012; Stronza and Gordillo, 2008; Blangy and Mehta, 2006; Lu and Bao, 2004).

Similar to the initial consultation results (4.5.2), the participants in this exercise also avoided selecting any sites from the disputed areas between the Kurdistan region and Iraq, voting to remove any proposed ecotourism sites from this region. One reason for this could be the threat that the militant rebels known as the Islamic State in Iraq and Syria (ISIS) posed to these areas, particularly after they took control of Mosul city in June 2014, as one participant mentioned.

7.5.2 Consensus and Differences between Stakeholders

In this study, stakeholders were asked to select potential ecotourism sites and identify their characteristics, enabling evaluation of the degree of consensus between different stakeholders, unlike some other studies in which researchers themselves selected the evaluation criteria (Bukenya, 2012) or criteria preference weights (Bunruamkaew and Murayam, 2011). Different stakeholders gave very different scores to different destinations in the follow-up consultation, as evidenced by the Likert score ranges in Table 15. These areas of disagreement may reflect a lack of communication between different ecotourism stakeholders in the Kurdistan region, as was also noted in the initial stakeholder consultation (see section 4.5.6).

Despite these differences, there was some evidence of stakeholder opinion moving towards consensus over some aspects of ecotourism development during this iterative consultation. This is

apparent when all participants bar one in the follow-up consultation voted for the retention of distance to NArrs, while it was only proposed by one participant in the initial consultation. Furthermore, while only 2 participants added a transportation criterion in the follow-up consultation (Table 15), all participants recognised its importance once it was highlighted. This indicates that the application of MCE may have built consensus in at least some aspects of site selection and increased communication between stakeholders as well.

7.5.3 Stakeholder Awareness of Ecotourism and Iterative Consultation

There was substantial disagreement in ranking different criteria between the initial and follow-up consultations, and in the sites put forward for ecotourism development. Some proposed sites that scored highly initially were subsequently removed in the follow-up consultation, such as Haspa valley, Bare Sile, Sarsink, Ahmadawa, and Inishki. One reason for the revised criteria assessment might have been the different ranking methods used, with the voting method used in the initial consultation and the Likert rating method used in the follow-up consultation. A second possible explanation is that the level of environmental awareness among stakeholders might have increased in the follow-up phase compared to 2012 when the initial fieldwork took place. This could be intuitively confirmed through, for example, their elimination of some sites lacking obvious potential for ecotourism development, such as Dalal Bridge in Zakho, and Sarchinar in Sulimani, and the addition of the sites at Jerwan and Khinis. These two Neo-Assyrian archaeological sites built in the 8th – 7th BC located to the south of Duhok city (Bonacossi, 2014; Boehmer, 1997) are already attracting international tourists (Traveller, 2013). This might indicate that stakeholders' understanding of ecotourism has broadened to include cultural as well as natural heritage (Ayala, 1996; Roaf, 1996; WMF, 2008). At the time, the widespread Neo-Assyrian rock monuments were voted for by all participants bar one as important evaluation criteria, despite only one participant from the initial consultation mentioning this criterion. This increased awareness might be due to the iterative participatory consultation used with the stakeholders (Ollonqvist, 2006; Pahl-Wostl and Hare, 2004), but could also be due to other influences such as the region's growing economic prosperity from oil revenues (Luft, 2005), a rapidly developing need to understand the environmental impacts of petroleum development and rapidly increasing engagement with the international community and its ideas.

It was also possible to validate the appropriateness of the criteria suggested by the participants in the initial consultation, when all the participants in the follow-up consultation voted for the removal of distance to airports criterion inserted by the researcher. The stakeholder panel thus did successfully reject a criterion that they themselves had not proposed.

7.5.4 Methodological Issues in MCE implementation

Unlike most previous MCE-based studies of tourism and ecotourism, this study has explicitly documented the process of consultation with stakeholders. None of these earlier studies reported consulting with stakeholders on an iterative basis, nor did they report on the degree of consensus between stakeholders over criteria and weights. Furthermore, whilst a small number of studies, such as Chandio et al. (2013) and Kumari et al. (2010), have used the Analytical Hierarchy Process to assess the logical consistency of input from stakeholders, the AHP approach has been criticized for making the process of assigning weights unclear to those who are consulted (Hajkowicz et al., 2000). This study has sought to address all of these deficiencies in published literature, particularly by cross-checking specific ecotourism destinations proposed by participants against proposed criteria and their associated weights to see if these were consistent with one another.

Relative to calculating distance to the nearest of a set of attractions (Kumari et al., 2010; Bunruamkaew and Murayam, 2011), the gravity modelling approach used for the KBAs had two advantages. Firstly, it gave greater consideration to the KBA sites having more potential, i.e. a better balance of positive versus negative qualities, to attract ecotourists (Sutton and Collerton, 2010). Secondly, it gave greater consideration to places close to clusters of KBAs compared to those close to a single, isolated KBA (Anderson, 2010). This gravity modelling approach could be extended to incorporate other criteria, such as the supply of suitable accommodation (Sharpley, 2000). Although the Terjung (1968, p. 120) comfort index has previously been used to analyse climatic suitability for ecotourism, this is believed to be the first time it has been used in an MCE-based study.

7.5.5 Limitations – MCE implementation under political instability

Decades of wars and internal political conflicts and instability have severely affected the region's natural and cultural resources and infrastructure. This situation also isolated the region in terms of research, producing a great absence of relevant local literature.

Given the relatively recent emergence of an independent regional administration, secondary data collection was limited by the absence as yet of a spatial data infrastructure (Rajabifard and Williamson, 2001) for the region, meaning that government departments had to be approached individually for data, often with limited success. For example, unsuccessful attempts were made to obtain an up-to-date road network of Kurdistan from the Ministry of Planning to be used as a criterion for destination development (Khadaroo and Seetanah, 2008). This lack of spatial data

could impact on the study findings. For example, the incorporation of data on transportation access could have reduced the difference between the MCE scores for the PESs and those for the 'control' accommodation units if a road network map layer was included in the MCE process, given that these accommodation units are typically located in areas with much better road access than PESs. Incorporation of census data on rural out-migration could similarly have a profound impact.

In addition, some of the existing indicators used here have certain limitations. For example, the archaeological sites and the NArrs considered in this study were identified from the Directory of Archaeology and an old map of Iraq dating from 1967. Nonetheless, there may still be other archaeological heritage sites of varying heritage value from other periods which have not been considered in the MCE analysis. However, due to the limited availability of more up to date information these sites were excluded. Moreover, neither the natural nor cultural heritage data used here included information about the fragility of the sites. The inclusion of such information could be used for gravitational 'pull', as was done for the KBAs (section 6.3.2).

Furthermore, the political and socio-economic situation in the Kurdistan region is rapidly changing due to the economic growth from oil revenues (Al-Khuzaie, 2013) and relative political stability and security in comparison to the rest of Iraq. This means the spatial data used to represent criteria may become outdated quite quickly; for example, as a result of road and infra-structure construction funded by oil revenue. Also incompleteness and lack of currency of data available online precluded their use in the MCE, such as the map layers from DIVA-GIS (http://www.diva-gis.org/datadown) whose outdated nature was noted by the Ministry of Planning staff.

In addition, in such a very uncertain political environment with very rapid socio-economic change, the results of the consultation exercise as a whole could rapidly become out of date. The escalating political disagreement between the Kurdistan Regional Government and the Iraqi Central Government and the rapid growth of Islamic State are both examples of this. Strategic planning outputs, such as those to come out of MCE, need to be reviewed very regularly, however, this also causes problems for long-term investments more generally, deterring potential investors (Teye, 1999). One solution in this situation would be repeating a stakeholder consultation frequently, but this adds to the costs of ecotourism development.

In this context, since early 2014, the occupation of many neighbouring areas by Islamic state has had a profound impact on the region. According to recent statistical figures published by the Ministry of Planning, the Kurdistan region has hosted more than 860 thousand refugees of the 1.8 million people who have been displaced throughout Syria and Iraq since January to October 2014, (MoP, 2014). In addition, the ongoing threat from Islamic State (Al-Qrtas, 2014) has greatly

influenced all aspects of people's lives, making tourism a lower priority and undermining international confidence in the region as a destination (Sönmez et al., 1999; Beirman, 2003). International tourism visitor numbers have dropped by at least 50% since August 2014 according to the Head of the Media Department at the General Board of Tourism. Data collection was similarly directly affected by this situation. This was reflected in poor response rates during the consultation exercise as some stakeholders were reluctant to participate and others gave only brief responses. At the same time, this political crisis made a fieldtrip to the Kurdistan region to consult with stakeholders face-to-face impractical and the interviews were conducted over phone and Skype instead.

As this study considered only the criteria suggested by participants in both consultations (Table 14 and Table 15), it did not choose criteria used in other studies such as land use/cover; species diversity; elevation; slope (Bunruamkaew and Murayam, 2011); or species distribution and conservation status [extinct, critically endangered, endangered, etc.] (Ghahroudi Tali et al., 2012). More in-depth initial education of participants could have potentially increased use of some of these criteria and consequently changed the MCE scores for the final suitability maps.

Although those consulted were all considered legitimate ecotourism stakeholders in the Kurdistan region, they had a wide range of professional backgrounds and interests. The selection of destinations and assessment of criteria, as a result, could be greatly affected by the experience and background of the consultative panel (Bögeholz, 2006). Unlike many other published MCE studies (Bello-Pineda et al., 2006; Proctor and Drechsler, 2006), this study has explicitly documented the nature of the group stakeholder consulted, enabling future reference for other researchers to judge the potential impact of participant group composition in their studies.

Finally, threshold effects are often regarded as neglected in MCE and can also alter site suitability scores (Fung and Wong, 2007). Since there were few votes for any threshold effects here, they were not used, but it is conceivable that some criteria (particularly those that are distance-based) are non-linear and may become unimportant beyond, for example, a day's journey time.

7.5.6 Future research

In future studies, more criteria could be progressively added to MCE as appropriate data become available, such as an updated road network, public services, tourism viewpoints, etc. In addition, depending on subsequent stakeholder consultation, other criteria such as visibility, land use/cover, species diversity, elevation, slope, etc. could be considered for MCE (Bunruamkaew and Murayam, 2011). Furthermore, criteria related to local community concerns (Hossain et al.,

2009; Tudes and Yigiter, 2010) including, for example, high rural unemployment, poor service access, high and rural out-migration, could be used to prioritise ecotourism site selection in MCE.

Possible future research could investigate the demand for different PESs from the viewpoint of local and international tourists or ecotourists (Ghahroudi Tali et al., 2012), selecting sites and criteria through consultation with these groups or international ecotourism operators (Higham and Carr, 2002). Thus, whilst this research concentrated on consulting only with in-country Kurdish stakeholders, future research could also consult with international organisations such as the World Tourism Organisation (UN-WTO). Given the emphasis on benefit-sharing with local communities in much ecotourism work, an appropriate next step following MCE would be to consult with local communities at destinations shortlisted through the MCE. Such an exercise could assess sites according to their capacity to provide socioeconomic benefits to local people (e.g. employment generation and preservation of cultural traditions) but also potential adverse impacts on the community (Stone and Wall, 2004). Future research could also look at the potential impact of ecotourism development on the proposed sites and their fragility to damage by visitors. This accordingly will help specifying carrying capacity of tourist activities in each site.

In order to maximise the benefits of any MCE, the approach used here could be incorporated into the initial site selection phase of ecotourism planning by the General Board of Tourism, to both review and expand the existing proposed set of ecotourism destinations.

7.6 Conclusion

MCE is a potentially valuable tool for ecotourism destination planning because it documents the impact of different criteria on the decision-making process. Its application has successfully identified and prioritized suitable sites for ecotourism development by considering various criteria. In addition, the iterative nature of this study has enabled review of the initial outcomes when the participants were re-interviewed about 2 years after the initial consultation. This has further helped to assess the extent of change in stakeholders' attitude and knowledge towards the environment and ecotourism. From an ecotourism perspective, MCE has also simultaneously provided insights into the level of consensus planning and differences between different stakeholders.

The outcomes of this study confirm that there are sites which can be developed such as Amedi which was among the most suitable PESs in both consultations. This finding is consistent with the recommendations of a workshop conducted in April 2012 at the General Board of Tourism in Erbil,

where Armedi was proposed as a site for ecotourism development (see section 2.4.5). Through iterative consultation, broad consensus emerged over some new criteria for ecotourism development including Neo-Assyrian rock monuments. This may indicate that there could be other important criteria and therefore PESs missed by participants of this research, which combined with political instability, suggests a need for ongoing stakeholder consultation to develop the industry. The study also indicated that the gravity modelling method can be applied to the spatial distribution of visitor attractions such as KBAs for MCE and GIS, and could also be used for other criteria if enough spatial data are available. In addition, a climate comfort index was applied in an MCE context for the first time.

The application of MCE in Kurdistan was also somewhat restricted by a lack of secondary spatial data, since not all criteria suggested by the participants could be matched to relevant data sets. This might have affected the evaluation process and the final MCE scores. The study highlighted the lack of any proposed criteria concerning the local community, indicating their marginalisation by other stakeholders. Including such criteria in the application of MCE, however, would direct ecotourism development towards areas more beneficial to local communities.

Finally, the procedures used here could be considered by decision-makers in planning and reviewing sites selected for ecotourism development, taking multiple criteria into account through a transparent consultative process.

Chapter 8: Discussion and Conclusion

This chapter aims to evaluate the three methodological approaches used in earlier chapters and evaluates the potential for ecotourism development in the Kurdistan region of Iraq. This evaluation could also be of use for other post-conflict and conflict-affected settings that are attempting participatory planning and ecotourism development. The chapter discusses how the study objectives, mentioned in section 1.2, have been met through the findings of this research, and how the findings here contribute to knowledge. It further discusses the rapid economic and political change in Kurdistan and the impact these changes have on data collection for this study and the methodological limitations encountered. Lastly, some implications for future research are suggested, after discussion of the implications for ecotourism development in Kurdistan, before giving a brief conclusion to the study.

8.1 Research Objectives and Addressing Gaps and Weaknesses in the Literature

The following sub-sections return to the objectives introduced in Chapter 1 (Section 1.2) and review the evidence that was gathered through fieldwork in response to each objective in turn. Having examined each objective in turn, section 8.2 focusses on how the work undertaken has developed the understanding of both participatory planning in post-conflict situations and ecotourism development in Kurdistan.

8.1.1 OBJECTIVE 1: To examine stakeholders' understanding, views, and experiences of participatory planning and ecotourism in a context of political instability and lack of democratic tradition

As stated in the literature review (Chapter two), participatory planning of tourism and ecotourism is seldom implemented in countries experiencing or emerging from periods of political conflict. This research has sought to address this gap by exploring whether it was possible to engage a wide range of stakeholders in post-conflict planning.

The turbulent political history of Kurdistan, in the form of villagisation, forced land acquisition, destruction of villages, and the ongoing internal wars has made environmental protection a low

priority. Instead, the population's priorities have been essential livelihood issues such as food security and reconstruction.

The most significant feature of stakeholders' understanding and perception of participatory planning concerned the legitimacy of the local community as a stakeholder in the planning process. Despite the generally positive attitudes and intentions towards ecotourism development in Ruste, there was little apparent concern for local community participation and engagement in ecotourism development and planning on behalf of government officials, NGOs and private sector organisations involved in tourism. Supporting evidence for this assertion included:

i) other ecotourism stakeholders seldom recognised the local community as a legitimate stakeholder (section 5.5.1). In addition, at a conference on Tourism Development for Kurdistan held in London in July 2013 benefit-sharing with local communities was absent from the conference programme and local community development was not addressed (TIDC, 2013);
ii) benefit-sharing with the local community was omitted from the ecotourism definition provided by stakeholders (section 5.4.2);
iii) most stakeholders described their relationships with the local community as either limited or non-existent (section 5.5.7 and Figure 36);
iv) there was an absence of research focusing on issues affecting communities in ecotourism sites, such as rural out-migration (section 6.5.2);
v) only 23% of local residents in Ruste and Girdik were aware of the ecotourism plan for Ruste (section 6.5.3), indicating a lack of participation in decision-making and a lack of political empowerment of the local community, whilst there was no evidence of economic empowerment or benefits for the local community;
vi) In the GIS analysis, no map layers concerning local community issues, such as employment opportunities, service access, and rural out-migration, were suggested by the other stakeholders (section 7.6).

Exclusion of local communities from ecotourism planning and benefits has been observed in other developing countries and in post-conflict settings. In Cyprus, for example, the government's plans to develop sustainable tourism in the Akamas peninsula were undermined because local communities were not consulted when establishing a national park and they were largely excluded from all stages of tourism planning (Ioannides, 1995). The authorities justified their exclusion on the grounds that local involvement would provoke a confrontation between interest groups within the community and thereby undermine project progress. However, this resulted in failure to understand how environmental protection would benefit the local community. As a consequence, the planners had no comprehensive vision of how the local community could be

involved in the park's management and operation. Ioannides (1995) found that some villagers threatened to react against government plans to develop tourism within the national park through setting fire to the national forest or destroying the turtle nesting grounds that existed in the area. In addition, the literature suggests similar local community concerns over employment opportunities in post-civil war Lebanon, with associated out-migration to already over populated cities (Abou-Jaoude, 2008). In both examples above, the destruction of rural life ultimately affected ecotourism development.

In addition, in Ruste valley, a lack of interest in participating in ecotourism development was noted among some residents (section II of 6.4.1). This might be attributed to a lack of a participatory governance tradition in Iraq (Blanton, 1999), resulting from a lack of education, lack of democracy and the influence of decades of dictatorship and associated adaptation to the centralised governance system, where decisions are made through an oligarchy (Farouk-Sluglett, 2001). This could also be attributed to the wider population's lack of experience in ecotourism business management and of its associated economic benefits. The local communities studied by Lai and Nepal (2006) in Taiwan showed greater intention to take up ecotourism-related employment, perhaps because they were already exposed to economic benefits of tourism via a nearby tourism destination known as Vilaulau Hot Springs. Most other Kurdish stakeholders believed local communities lacked the capacity and means to manage tourism. Whilst these stakeholders recognised the need to educate and raise environmental awareness among local communities, they did not propose any community empowerment mechanisms, other than education.

It is therefore suggested here that the local community should not only be the focus of education and environmental awareness campaigns, but that they should also be empowered to participate in ecotourism development and management. In order for local communities in Kurdistan to be empowered, they should be able to "decide what forms of tourism facilities and wildlife conservation programmes they want to be developed in their respective communities, and how the tourism costs and benefits are to be shared among different stakeholders", as stated by Akama (1996, p. 573), evaluating environmental values and nature-based tourism in Kenya. Local community empowerment has been defined as "a multi-dimensional social process that helps people gain control over their own lives" (Page and Czuba, 1999, p. 3). Such dimensions, for example, are sociological, psychological, economic, and political (Scheyvens, 1999). In Ruste, only 23% of the residents knew about the GBT's ecotourism plan, indicating a lack of political empowerment of the local community, whilst there was no evidence of economic empowerment or benefits for the local community. Furthermore, frustration with the decline of agricultural production due to the intense competition from imported food may suggest limited psychological

empowerment. Finally, the out-migration which disperses rural communities may possibly contribute to a lack of social empowerment or, at least, social fragmentation. From the above analysis, it is clear that the local community is disempowered regarding the four dimensions (sociological, psychological, economic, and political) described by Scheyvens (1999) as indicators of local community empowerment. This, in turn, is reflected in their attitudes and intentions towards conservation and ecotourism, and ultimately degrades their participation in decision-making.

Local community empowerment against the four dimensions mentioned above will require long-term commitment and effort. For example, to economically empower the local community, Tosun and Timothy (2001) confirmed the necessity of sharing economic benefits to motivate them to engage with ecotourism planning. On this basis, a case study of a natural reserve deemed as successful in China, Li (2006) suggests evaluating the fairness in benefit distribution to the local community is as important as monitoring their participation in ecotourism development and decision-making. Therefore, this study suggests that the government, in post-conflict areas, should give more consideration to the role of various non-governmental organisations (NGOs) to manage natural conservation and cultural heritage preservation. The role of these NGOs is also needed to educate and empower the local community. In addition, more efforts should be made to conduct research regarding local community dynamics, livelihoods, and socio-economic conditions.

Furthermore, local involvement and participation in ecotourism could be enhanced by, firstly, providing proportional distribution of economic benefits between all stakeholders and among the member of local community, which will ultimately increase all stakeholders' support for conservation (He et al., 2008) and secondly, increasing environmental awareness among local residents, which should increase their ability to participate meaningfully in ecotourism management (Zhang and Lei, 2012). Several existing approaches are available for doing this, such as the procedure of 'People Empowering People' and 'Cultural Heritage and Peacebuilding', which are further described in section 8.6.2 below.

The findings of this research indicate that developing ecotourism in the Kurdistan region, with its lack of democratic process and political interference in the decision-making process, requires consideration of the political system and power structure of society. Similar arguments could be revealed from the existing literature presented by Yasarata et al. (2010), who criticised tourism development in North Cyprus as being a product of political influence and greatly subject to bureaucratic decision-making in planning. In this regard, there are concerns that management

systems and principles will vary with each political change. This puts the norm of *long-term planning* in jeopardy.

8.1.2 OBJECTIVE 2: To establish the extent and nature of interaction between stakeholders and the factors underpinning this interaction

During this study, it emerged that the government, rather than NGOs or private companies, was seen to be the key player in managing ecotourism development by providing, for example, loans for ecotourism projects, environmental education, marketing, and employment. The absence of any referral to private sector bodies through snowball sampling is one line of evidence that corroborates this point (section 5.3.2.1).

Despite this, the government was often criticised for inadequate development planning, lack of transparency, limited staff capacity, the insufficient budget for tourism and decision-making centred on individual viewpoints rather than institutional policies. The apparently limited consideration given to other stakeholders such as NGOs and private tourism companies reflects experience elsewhere, such as in North Cyprus (Yasarata et al., 2010), as referred to in sections 5.5.6 and 6.5.1. In successful ecotourism development cases (such as in Alberta, Canada) the private sector, including NGOs and private tourism companies, have played important roles in developing and managing ecotourism without the direct involvement of government (Wight, 2002). However, the centralised government system and the absence of a well-developed private sector may explain why the government is considered the key player in Kurdistan. In addition, lack of any experience of democracy and lack of consensus in decision-making in Iraq has led Iraqis to perceive decision-making as the responsibility of those in authority, with little consultation with other stakeholders, particularly local communities. In other settings where this was the case, such as in Jamaica, the process of sustainable tourism development encountered issues of lack of consensus, transparency and collaboration between stakeholders which impeded sustainable tourism development. This further led to financial constraints and social problems (Altinay et al., 2007).

Innes (1996) argued that proper consensus building with stakeholders can produce decisions that reflect public interest. However, within the Kurdish context, it is difficult to arrive at consensus decisions. In a similar context, according to Healey (1997), it is important to obtain a collaborative participation between different groups of stakeholders to solve complex consensus problems. There is a contingency model of collaboration called “collaborative governance”, which can build more consensus between ecotourism stakeholders. Through this mode of governance consensus

on decision-making might be achieved by bringing multiple stakeholders together in common forums with public agencies to facilitate face-to-face dialogue, trust building and the development of commitment and shared understanding (Ansell and Gash, 2008, p. 543). Most importantly, in this context collaborative governance and consensus building, as a result, cannot be accomplished in a short time (Coglianese and Allen, 2003; Imperial, 2005). It is, therefore, important to consider this for developing programmes which need to be implemented in a short time. The strengths and weaknesses of collaborative governance and the conditions under which such a model can be applied are discussed in more detail by the literature (Emerson et al., 2012; McCloskey, 1999; Warner, 2006; Freeman, 1997; Imperial, 2005).

Given its intentions to develop ecotourism in the region (GBT, 2013c) the KRG should aim to strengthen relationships between stakeholders, particularly with local communities. There are many other international examples of this model of development, including Alishan, a well-known eco-travel destination in Taiwan, where interaction among different tourism stakeholders was found to be a critical component for sustainability (Tsaur et al., 2006). This, in turn, may avoid problems that may result from lack of co-ordination as Yuksel et al. (1999) observed in their study of tourism planning in Pamukkale, Turkey, where a centralised and hierarchical decision-making structure, which made tourism planning difficult. Although the KRG has a masterplan for ecotourism (KRG, 2013e), awareness of this plan among interview and workshop stakeholders was low, and so part of this strategy should entail wider dissemination of the KRG masterplan and consultation on future revisions to this document.

8.1.3 OBJECTIVE 3: To identify the barriers and enablers to the planning and implementation of ecotourism development in the region

The findings of this research indicate that there are few enablers and many barriers to ecotourism development, particularly the ongoing problems from years of political conflict. The most obvious of these problems is the ongoing destruction of the natural and cultural heritage of the region which may lessen the potential for attracting international tourists. Political conflicts in Iraq caused the destruction of thousands of villages in the Kurdistan region under Iraq's previous regime in the 1970s and 1980s (see section II of 4.4.1). Interviewees in this study (see section II of 6.4.1) corroborated Ghaidan's (2008) report of the destruction of more than 500 villages in 1983 alone. These events have greatly affected rural livelihoods and as a consequence jeopardised Kurdish cultural heritage, one of the essential elements for ecotourism development in the region.

In addition, conflict between the main Kurdish parties, the Kurdistan Democratic Party (PDK), Patriotic Union of Kurdistan (PUK) and Kurdistan Worker Party (PKK), in the mid-1990s caused about 400 villages to evacuate near the battlefronts and migrate to towns and cities, such as Duhok, due to insecurity (Table 7 in section 5.4.2.5). The United Nations Centre for Human Settlements (UNCHS-Habitat, 2001) stated that this fighting caused about 15,000 people to be displaced. There were concerns that the indigenous culture of these areas would not be revived easily, as the rural population might not return to their villages even after conflict ceased. According to a UNCHS-Habitat survey in 2001, only 45% of displaced families were expected to return to their villages of origin. However, even after the conflict ceased in 1997, according to one participant in the present study (Table 7 in section 5.4.2.5), due to the intervention of the Turkish army who entered the Kurdistan region in that year (Fawcett and Tanner, 2002), only about 20% of rural residents returned to their villages thereafter. There are still some deserted villages such as Bare Gara and Nerwa u Rekan villages. The subsequent ongoing fighting between the Turkish army and the PKK militants in the Kurdistan region lasted until 2013 not only led to insecurity in some villages but also forest fires, negatively affecting tourism in areas prone to clashes between these two groups. The same consequences can now be observed from the ongoing conflict between the Kurdish army (Peshmerga) and ISIS fighters mainly focused around the disputed areas between the Kurdistan region and the rest of Iraq. For example, about 200,000 Yazidis fled from Shingar into other parts of the Kurdistan region (Phillips, 2014) and others to Turkey after Shingar was occupied by ISIS in August 2014. All this has greatly degraded the cultural heritage of both the Kurds and other Iraqi regions. In early 2015, for example, ancient artefacts at Mosul Museum were destroyed by ISIS fighters (Bauer, 2015).

Moreover, the continuous and uncontrolled increase in the number of holiday homes in rural areas (section II of 6.4.1 and Figure 43) is taking place at the cost of natural and cultural resources. Similar trends of urbanisation and pressure on landscapes in Kwangju city region in South Korea led to severe environmental problems, changes in landscape character, and threats to biodiversity due to loss and fragmentation of woodlands (Kim and Pauleit, 2007). Collectively, this evidence indicates that the natural heritage of the Kurdistan region, an essential element of ecotourism development, is being continuously eroded.

Furthermore, decades of conflict have left behind residual hazards for tourism development, most notably minefields. There was, however, consistency between the landmine map obtained from the Iraqi Kurdistan Mine Action Agency in Erbil (Table 15), with the areas of landmines identified in this study by stakeholders (section 5.4.2.5) and by the local community in Ruste (section IV of 6.4.1). This suggests that the Mine Action Agency's data are a credible basis for mine clearance and planning. Alongside this, Halapja, which was subjected to chemical attacks in 1988 by Iraqi

forces, is still affected by hazardous concentrations of mustard gas which may deter tourist visits and pose health risks to groundwater supplies and via contaminated soil (Ashmore and Nathanail, 2008).

Post-conflict areas are typically at high risk of conflicts reigniting, and this has held true in Kurdistan. The unstable political and security situation caused by fighting with ISIS, accompanied by regional financial crises, have greatly impacted the international tourist flow into Kurdistan, which dropped by about 50% in the second half of 2014 according to the GBT. This situation has also affected investment opportunities across all industrial sections (Dun&Bradstreet, 2014), trends reflected in tourism in other conflict-affected states. The flow of international tourists to Lebanon, for example, declined in 2011 after the internal war ignited in neighbouring Syria (Economist, 2013). Depending on the intensity and duration of violent political unrest in a certain destination, according to Steiner (2007), tourism flow decreases and foreign investment declines with time until it eventually ceases altogether, as happened in some Middle Eastern and North African countries after 9/11. This may indicate that if the conflict with ISIS continues the decline in tourist numbers and investment in Kurdistan may become permanent. Aside from media reports, international travel advice and travel insurance can be critical factors in this process. As of April-May 2015, the Foreign and Commonwealth Office, for example, advised against all but essential travel to the Kurdistan region (www.gov.uk/foreign-travel-advice/iraq). While both are important considerations for international tourists, insurance and travel advice were not mentioned by any stakeholders in this research.

The long-term social and psychological impacts of villagisation programmes have been examined in relation to such programmes in Tanzania (Lorgen, 1999b), Mozambique (Coelho, 1998), and Ethiopia (Cohen and Isaksson, 1987). In Mozambique, for example, villagisation, which was adopted by the local government between 1977 and 1982, led to considerable popular dissent against subsequent government policy (Lorgen, 2000). However, the long-term consequences of such internal displacement of populations in Iraq have been little studied. In this study, the legacy of villagisation by the previous Iraqi government (section II of 6.5.1) may have exacerbated current fears of forcible land acquisition by the government, as evidenced by residents fencing their lands in Ruste (section II of 6.4.1). The government's plans for housing acquisition in Sakran village (section I of 6.4.1) suggest that these fears may be justified. In rural areas like Ruste with a history of villagisation, land tenure is thus likely to be an issue where mistrust in government is particularly pronounced.

The mistrust in government by local communities, owing to high levels of villagisation and land acquisition, is considered a large barrier to ecotourism development in the region as it results in increasing discrepancy between the local community's attitudes and intentions towards

conservation and ecotourism development, as discussed in section II of 6.5.1. In other settings, research suggests that land acquisition for conservation without conducting a proper cost-benefit analysis achieved smaller outcomes of conservation planning (Naidoo et al., 2006). Relocating local communities from protected areas is considered unacceptable to most community members who have developed long-term bonds with these areas (McNeely, 2001). Conflicts were observed between the authorities of three national parks in Taiwan and the indigenous people living nearby as a consequence of relocating the indigenous people, whose activities were regarded as incompatible with the goal of natural resource conservation (Chi and Wang, 2005). Therefore, this study suggests that building more trust between the community and the government will reduce the barriers to ecotourism development.

The findings from the present study suggest that the rate of rural out-migration is increasing (section II of 6.4.1 and Figure 45) and that there is limited awareness of this among the KRG authorities (section I of 6.4.1 and Figure 41), suggesting limited communication with the local community and lack of local community participation in ecotourism development. While there are studies of post-conflict migration In Iraq (Davidson, 2013; Eklund and Pilesjö, 2012), rural-urban migration in Iraq has attracted little attention previously. This was found to be related to local community concerns over local agricultural production being undermined by competition from imported food from neighbouring countries. Moreover, the poor pay for Peshmerga reservists and lack of employment opportunities also lower quality of life in rural areas. Another local community concern observed during this study, contributing to out-migration, was the lack of public services (section 5.4.2.5), notably the absence of a nearby secondary finishing school in Ruste (Section 6.5.2). Sales of local agricultural produce to tourists could potentially stem this trend, but the rural out-migration problem requires further investigation to understand how widespread it is. Mass rural out-migration was also observed in post-war Lebanon due to high rural unemployment, negatively affecting tourism development (Abou-Jaoude, 2008). However, despite ecotourism development frequently taking place in remote, rural communities, there has been comparatively little attention paid to the lack of services and outmigration as local community concerns in previous studies of ecotourism projects.

Finally, the long history of political conflict in Iraq has also led to a lack of available data for tourism planning. The lack of a recent census (see section 7.3.4) makes population and migration estimation in Iraq difficult (Habib, 2013), preventing identification of rural communities affected by out-migration and unemployment. The available data on migration are largely focussed on conflict-related migration (Davidson, 2013) (see section 6.5.2). Spatially referenced data on services such as schools and health centres are similarly lacking, and these are again key concerns for rural communities. Similarly, as shown in Chapter 7, a lack of ecological survey work in Key

biodiversity areas (KBAs) and lack of legislation establishing conservation areas – both low priorities in times of conflict - led to difficulty in mapping biodiversity within the MCE and GIS analysis.

8.1.4 OBJECTIVE 4: To develop a mixed-method, iterative approach to participatory planning for ecotourism development in regions of political instability

Although there is a wealth of experience of participatory planning in countries such as Kenya, Sri Lanka, and the Philippines (Thompson, 1995), it is unclear how effective such approaches would be in conflict-affected Kurdistan, with its long history of dictatorship. Stakeholder reactions to the three participatory tools used in Kurdistan can be evaluated in three ways: by considering patterns in refusal rates, by examining participants' reactions during interviews and workshops, and by assessing the degree of consensus achieved through each method.

Firstly, in terms of refusal rates, the participatory tools used in this research seemed to be largely accepted by most of the participants. In the Ketso-derived workshop, for example, three out of twelve invited stakeholders did not attend the workshop due to various duties preventing them from doing so. In the follow-up consultation (sections 5.3.2.1 and 7.3.3) out of 20 stakeholders who participated in the initial consultation (nine in the Ketso-derived workshop, section 5.3.1.1, and eleven in the follow-up interviews, section 5.4.2.1), seven did not participate in the follow-up consultation (section 7.3.3), as they either refused or did not respond. Their refusal to participate could be related to the beginning of the internal conflict with ISIS around the time this survey took place (June-July 2014). In Ruste valley, out of 80 residents asked to participate in the questionnaire interviews, ten refused because they either did not have time or were disinterested, stating they had not benefited from previous ecotourism-related surveys (section I of 6.3.3).

Secondly, in terms of participant reactions to the consultation process, participants in the Ketso-derived workshop initially expressed surprise at its format, unlike traditional presentation workshops, but subsequently remarked on the distinctiveness of this participatory process, making them feel actively engaged in sharing ideas. Stakeholders who participated in the semi-structured questionnaire (Chapter 5 and Chapter 7) generally reacted positively towards this participatory survey. Two participants suggested that such participatory surveys needed to be more widely adopted to develop Kurdistan and that autocratic decision-making should cease. On the other hand, three participants, despite recognising the value of participatory surveys, argued that it was still early for the Kurdish community, used to dictatorship, to depend on such participatory surveys for development planning.

Thirdly, the degree of consensus between stakeholders over criteria and weights was assessed in Chapter 7. The high levels of disagreement between stakeholders were apparent from the wide range of criteria weights and over their threshold effects, hence the lack of consensus. For instance, the range of Likert scores for the 'landmines' criterion was 1-7 while the threshold level varied from 1 to 40 km (section 7.4.2 and Table 16). Despite this, the iterative basis of this research itself might have generated some consensus between stakeholders through increasing their awareness of ecotourism. For example, stakeholders' awareness of the importance of cultural heritage (e.g. Neo-Assyrian sites) increased between the initial and follow-up MCE consultations, with knowledge of such sites spreading across the group after they were suggested by only one participant in the initial consultation (section 6.4.2). It can be argued here that the iterative method of using stakeholder consultation approaches helps to assess the degree of consensus achieved between stakeholders in politically instable settings.

In Ruste valley (Chapter 6), the residents interviewed could be divided into three groups: those who were proponents of ecotourism development referring to its potential to improve living standards through employment opportunities, for example; those who were neutral and did not express strong reactions about ecotourism; and those who were suspicious of any KRG intention to improve their livelihood through ecotourism. For example, the latter group argued that the government had ignored their demands for public services and argued about the decline in the agriculture market (as explained in section 6.5.6). Although the community was thus somewhat divided, some degree of consensus was observed to exist between the residents in Ruste. For instance, most residents agreed that traditional tribal sites, such as Gorbabila village, should be preserved, and were similarly likely to help maintain these sites or participate in local festivals or traditional events (section III of 6.4.2 and statement pair six in Table 13).

In summary, several key findings emerge that were not apparent from previous literature either on ecotourism planning or on participatory planning in post-conflict situations. Firstly, there are likely to be long-lasting impacts from centralised, autocratic rule that may take decades to undo. Thus, past programmes such as enforced villagisation have led to deep mistrust of government in relation to land ownership, whilst paradoxically, highly centralised governmental control of economic development has led to a culture of dependence on the state. Secondly, the ecotourism literature has largely failed to document the needs of the remote rural communities where ecotourism takes place. Not only are services and employment creation key priorities of such groups, but alongside this, reducing rural out-migration and its social consequences is critical for such communities.

8.2 Methodological Developments in Participatory Planning – Contribution to Knowledge

The principal methodological contribution of this thesis was to devise a GIS-based technique for assessing consistency in stakeholder input to participatory suitability mapping. The technique involved cross-checking specific suitable sites proposed by stakeholders against a set of site suitability characteristics, ordered according to their importance. The technique has potential application not only in ecotourism, but also for other forms of participatory suitability mapping, and could be transferable to other settings outside of Kurdistan. Secondary methodological contributions include the application of existing techniques to a post-conflict setting, notably the methodology for assessing local community attitudes and intentions developed by Lai and Nepal (2006), and the use of a Ketso-derived stakeholder consultation process. These contributions are described in greater detail in turn.

In Chapters 5, 6 and 7 an attempt was made to develop the methodology underpinning each of the three participatory tools used or else assess their application to a new field. In Chapter 5, the Ketso-derived technique was used in a post-conflict area (the Kurdistan region in this case) for the first time and also applied to ecotourism for the first time. At the beginning, some of the participants of this research expressed surprise in the way the Ketso-derived workshop was run and the apparent frivolity in using colourful cards against the more traditional styles of workshop they were used to. However, they then remarked on the uniqueness of this participatory process. The way the workshop activities were run via Ketso-derived workshop made the participants feel that they were all involved and able to share their ideas. The confidence of the participants grew as the workshop activities progressed, after an initial period of surprise in the first one or two stages of the workshop. Ketso has the potential to enhance the quality of communication and interactions between stakeholders in a participatory setting. The mixed nature of Ketso workshop activities encourages individual thinking and sharing ideas for more discussion in a group environment. This creates an unusual environment and was observed in this research to be more productive than traditional 'round-table' workshops due to the ground-rules encouraging turn taking and the use of a physical means to record people's ideas, ensuring everyone is heard. The information discussed during the workshop is likely to be more outstanding and memorable because of the unusual experience provided by the setting and the display, and practical nature of the workshop technique (Ketso style). In addition, using the participatory workshop (Ketso style) successfully avoided problems of dominant group members, despite the fact that participants were unused to participatory processes. Furthermore, the participants located potential ecotourism destinations on a map of the Kurdistan region (Figure 30) in a participatory mapping

activity which has not often been used with Ketso in previous research. It also helped understand the complexities and variation in participants' understanding of using the key themes to structure and prioritise ideas on the Ketso-derived workspaces (Furlong and Tippett, 2013), which is essential in determining the development of tourism. Yuksel et al. (1999) have related the failure of ecotourism development to a lack of such understanding. This study, therefore, adds to the range of applications and settings where Ketso has been successfully implemented, alongside studies of environmental management and water quality (Furlong and Tippett, 2013; Tippett et al., 2011).

While the Ketso-derived participatory workshop was accepted by most of the stakeholders who were invited to the workshop, some invited stakeholders did not attend the workshop for various reasons (section 5.3.1.1). One possible reason could be a lack of interest in participatory planning, which is common in post-conflict settings. However, these and additional stakeholders were consulted in the follow-up questionnaire interviews (section 5.3.2.1). In addition, in some different situations or settings, there could be more reasons why people may not be able to gather in one participatory meeting. For example, if this participatory stakeholder consultation had taken place in the Kurdistan region during the mid-1990s, it would not be possible for participants, from different parts of the region, to easily gather in a meeting in one place/city due to internal political conflicts and restrictions on people's movement in the region during that time (Fawcett and Tanner, 2002). Civilians in some parts of Iraq are still anxious about freely moving between different areas/cities due to Iraq's sectarian divide and violence (Haddad, 2011). The same movement restrictions exist on civilians in Afghanistan due to political conflicts and a lack of security. Furthermore, various transport challenges in Afghanistan, such as a lack of infrastructure facilities, roads and the inconsistent public transport, also limit people's mobility in the country, particularly in remote rural areas (Fluri, 2011). This study suggests that employing methodological approaches, such as questionnaire interviews and RRA techniques alongside the workshop, assists in the consultation of stakeholders who are less interested in gathering or cannot be gathered in one or more meetings, i.e. workshops.

In Chapter 6, Lai and Nepal's (2006) attitude and intention framework was for the first time used in a post-conflict area (the Kurdistan region in this case). A similar approach has also been used in Taiwan (Zhang and Lei, 2012) and Nicaragua (de los Angeles Somarriba-Chang and Gunnarsdotter, 2012) to study community engagement in ecotourism development. In contrast to these two studies, using RRA techniques alongside Lai and Nepal's approach in Ruste helped to better capture behaviours not apparent from the questionnaire interviews. For example, while local residents expressed positive attitudes and intentions regarding discouraging and even challenging tourists over littering, they were observed to be littering themselves (section II of 6.4.1).

Alongside this, field observations via transect walks of the local community in Ruste uncovered instances of fencing off of their lands, for the fear of land acquisition by the government (section II of 6.4.1), indicating their unwillingness to participate in conservation programmes and in ecotourism development. In addition, by using RRA interviews, it was possible to hold short conversations with the local community members who refused to take part in the questionnaire surveys. This suggests that questionnaire surveys such as that of Lai and Nepal should be accompanied by ancillary field observations and RRA interviews, so that questionnaire responses can be corroborated and that respondents can participate in giving information, respectively.

Moreover, by calculating Spearman's rank correlation coefficient for each statement pair concerning attitude and intention from individual questionnaire responses, the statistical analysis of Likert scores seemed less misleading than when calculated from aggregate Likert scores as undertaken by Lai and Nepal (2006). For example, whilst an aggregate analysis suggests the correlation between attitudes and intentions is significant for the 'preservation of cultural tradition' domain (Table 3), it is apparent from Table 4 that attitude and intention are correlated for only one of four statement pairs within this domain. Therefore, the statistical analysis of Likert scores aggregated by domain, used by Lai and Nepal (2006), can potentially be misleading.

In Chapter 7, this study used stakeholder consultation with GIS-based MCE to identify potential ecotourism sites, unlike most other MCE studies, which do not include a consultative component. In addition, this consultation was undertaken on an iterative basis with a greater attempt to reach consensus (section 7.5.1) and the degree of consensus (section 7.5.2) between stakeholders over criteria and weights being quantified, unlike previous MCE-based ecotourism studies. The application of MCE may have built consensus regarding some aspects of site selection. In addition, the iterative nature of the consultation helped to revise and to consolidate stakeholders' point of view with ongoing sharing of information between them, which increased their confidence in the outputs. Such an iterative MCE approach can be applied in other conflict-affected countries, such as North Cyprus, where lack of consensus between different stakeholders is inhibiting sustainable tourism development (Ligay, 2011; Yasarata et al., 2010). The PESs proposed by the stakeholders, in both initial and follow-up consultations, had higher MCE scores than the 'control' accommodation units, used to assess respondents' consistency (section 7.4.3). Nevertheless, the difference between the MCE scores for the PESs versus accommodation units changed little between the initial and follow-up consultations (Figures 57 and 58), which may indicate that iteration did not necessarily strengthen understanding of site suitability.

Furthermore, whist the Analytical Hierarchy Process (AHP) is widely being used to evaluate the relative importance of criteria, such as by Kumari et al. (2010) and Chandio et al. (2013), the method has been criticised because of its complex pairwise ranking approach, which is seen to

reduce transparency when participants allocate weights (Hajkowicz et al., 2000). The present study has, therefore, avoided these deficiencies by cross-checking potential ecotourism sites proposed by participants against proposed criteria and their associated weights, in order to assess the consistency between criterion weights and proposed destinations. This approach to examining the logical coherence and consistency of stakeholder input to the MCE process has not previously been attempted in other published MCE studies.

Instead of using Euclidian distances between the Potential Ecotourism Sites (PESs) and the nearest Key Biodiversity Area (KBA), the gravity modelling approach was used to calculate distances to a set of KBAs (Bunruamkaew and Murayam, 2011; Kumari et al., 2010), weighting these by attractiveness and distance (section 7.2.1). To the author's knowledge, this is the first time that gravity modelling has been used with MCE for tourism planning and it has a number of advantages over simpler techniques. The gravity modelling was used because of its potential to give greater consideration to those KBA sites having more potential to attract visitors, with a greater balance of positive versus negative qualities (Sutton and Collerton, 2010). In addition, the gravity modelling gives greater consideration to the PESs close to clusters of KBAs compared to those close to an isolated KBA (Anderson, 2010). Similar gravity modelling approaches could also be used in other settings. For example, in Miankaleh Peninsula, Iran, Ghahroudi Tali et al. (Ghahroudi Tali et al., 2012) could have used a gravity modelling approach to represent a weighted combination of distance to multiple attraction sites as a suitability criterion to select ecotourism facilities instated of calculating distance to nearest attraction sites separately. The assumption in this case, is that the attractive sites which have more positive qualities, such as being more environmentally sustainable, would attract more environmentally friendly visitors than attraction sites that have less of such positive qualities (Hu and Wall, 2005).

This research is also believed to be the first in using the Terjung (1968, p. 120) climate comfort index in an MCE-based study. This helps to assess the potential of ecotourism sites to attract tourists during different seasons of the year. In addition, the nature of each stakeholder consulted was explicitly documented. This acts as a future reference for other researchers to judge the potential impact of participant group composition in their studies.

8.3 Impact of Rapid Economic and Political Change

The rapid pace of socio-economic development in Kurdistan, driven by oil revenues (Luft, 2005), and political change in terms of contact with the wider international community, affected both ecotourism development and the implementation of this study. For example, GDP per capita

increased from 0.534 million Iraqi Dinars (IDs), [GB£270] in 2004 to 4.740 million IDs (GB£2,450) in 2008, according to figures recently published by the KRG Ministry of Planning (MoP) (KRG-MoP, 2012). For the first time in the region's history, a five-year (2013-2017) comprehensive strategic plan was prepared by the MoP, which sets out all future development and capital investment projects in the region (KRG-MoP, 2012). More specifically, the GBT also developed a Tourism Master plan (KRG, 2013e) purportedly drawing on consultations with multiple stakeholders.

In addition, the recent political change caused by the conflicts between ISIS and the KRG (from the second half of 2014) negatively affected ecotourism development and the implementation of this study. Some of the findings of this research may have already become out of date. Furthermore, participants in the initial MCE consultation suggested Shingar, Tilafar and Tilkef as potential ecotourism sites. However, participants suggested these sites be removed in the follow-up consultation, as they were occupied by ISIS later in 2014, suggesting a dynamic and rapidly changing security situation. Moreover, stakeholders' awareness of the importance of map layers, for example in relation to Neo-Assyrian heritage sites, increased in the follow-up consultation, arguably because of the rapidly increasing engagement with the international community and its ideas.

Obtaining up-to-date digital map layers to use as criteria for destination development, such as a road network layer, was not possible due to rapid infrastructure development. For example, the digital road network map layer obtained from DIVA-GIS (http://www.diva-gis.org/datadown) was noted to be outdated by Ministry of Planning staff. Incorporating such map layers in the MCE analysis could have further increased the difference between the MCE scores for the potential ecotourism sites and that for the 'control' accommodation units.

The recent economic growth has increased urban job opportunities which in turn caused rural-urban migration, as was noticed in Ruste (section 6.5.2). Out-migration was further driven by the low economic returns from farming due to high competition from food imported from neighbouring countries. Jabary and Hira (2013) have attributed this influx of cheap agricultural produce to the foreign policies of Turkey and Iran, who wish to increase Kurdistan's dependency on imports and destabilise its agricultural sector. This, in turn, led to a much lower number of households in Ruste and Girdik than anticipated, which affected the sampling process (section I of 6.3.3).

Finally, some of the findings of this research may have already become out of date due to the rapid rate of social and economic changes in the Kurdistan region. Different responses might have been obtained, had the same participants been interviewed under the same protocol in 2015. The region has experienced rapid growth in economic prosperity, mainly from oil returns,

which have then helped to develop the region and improve livelihoods after years of political conflict and economic instability.

Therefore, in the context of the Kurdistan region and such rapid change, there is a need to regularly review any strategic planning outputs, such as those resulted from the MCE analysis. However, such an ongoing review process is likely to be costly and may deter potential investors. In Ghana, for instance, a master plan for tourism development for the period 1975-1990 was not implemented, even after it was well-prepared, due to economic deterioration caused by a decade of political instability. This deterred foreign investment and international tourists (Teye, 1999).

Despite the rapidly changing political environment, there are some findings that are likely to remain valid. For example, addressing the collapse in Kurdistan's agriculture as a result of cheap food imports from neighbouring countries, resultant lack of job opportunities and the need for services in remote rural communities are likely to remain priorities for the local communities where ecotourism could be located. More importantly, with modest financial support, the spatial planning methodology used here could be repeated, but for purposes apart from ecotourism that reflect current priorities in Kurdistan – for example, identifying sites for resettling of displaced populations.

8.4 Methodological Limitations

Particularly in Chapter 5, some stakeholders' limited understanding of ecotourism might have affected the integrity of the referral sampling process, as referrals may have been made to participants not meeting the eligibility criteria for an ecotourism stakeholder. Nevertheless, this limitation was subsequently handled by screening the proposed participants against the eligibility criteria (Mitchell et al., 1997, p. 854) of acquiring, at least, one attribute of 'power', 'legitimacy' and/or 'urgency', (see section 3.4.1). However, whilst inappropriate onwards referrals could be screened out of the sample, it was clear from the limited private sector representation that the referral process had not identified all stakeholders. In addition to these referral sampling problems, some potential participants did not attend the Ketso-derived participatory workshop and interviews, either because they were unavailable or otherwise refused to participate (sections 5.3.1.1; 5.3.2.1; and 7.3.3). There would have been a wider range of ideas and perhaps a different direction to some discussions if all the invited participants had been able to attend. However, various duties prevented delegates from the Ministry of Municipality and Tourism, a delegate from an NGO, and one person from a private tourism company from attending the event. This limitation was later partially addressed by conducting subsequent follow-up interviews

(initial interview survey) with these three delegates and others via 'snowball' sampling. For logistical reasons, workshop delegates and fieldwork was concentrated in the Duhok area, although the study aimed to examine ecotourism development across the whole Kurdistan region. This has, perhaps, affected the spatial pattern of proposed ecotourism destinations in the workshop, as explained in section 5.5.2.

The other limitation affecting interviews concerned the snowball sampling method for recruitment of stakeholders (Beauchemin and Gonzalez-Ferrer, 2011). The initial 'wave' of respondents, drawn from academia, government and NGOs, proved unable or reluctant to refer onwards to private sector stakeholders. Despite efforts to overcome this deficiency by separately recruiting private sector stakeholders via a listing of tour operators, this apparent deficiency in the 'snowball' sampling suggests those interviewed may well be a biased subset of ecotourism stakeholders more generally.

The limited budget for this study prevented the purchase/rent and subsequent use of the commercial Ketso kit in the participatory workshop described in Chapter 5. This meant that participants drew their ideas on coloured cards and then displayed them on poster boards being used as 'workspaces' rather than on mats on tables, as would happen with the commercial Ketso kit. The use of poster boards rather than tables as 'workspaces' may have to some degree inhibited discussion between participants, simply because the physical layout of a 'workspace' on a table makes dialogue easier. The shape of the leaves and branches also makes it easier for participants to identify patterns amongst the themes. It is therefore suggested that in order to encourage more discussion among the participants, use of the commercial Ketso kit is strongly recommended.

Although useful in generating initial insights into local community perspectives on ecotourism, the RRA approach is still criticised for lacking rigour and is sometimes regarded as suitable only for the preliminary phases of research (Townsley, 1996). It is also criticised for selection bias when choosing participants to be interviewed (Chambers, 1981).

Furthermore, household numbers in Ruste were reduced due to out-migration and interviews took place only with those who remained, so the views of out-migrants were not captured (section I of 6.3.3). A wider range of ideas and perhaps a different direction to some discussions could, therefore, have been obtained from the missing potential participants.

More generally, there was little consideration of international stakeholders such as international tour operators in this study, due to both time and financial constraints.

In Chapter 7, secondary data collection was limited by the absence of a spatial data infrastructure (Rajabifard and Williamson, 2001), due to years of political conflict and the relatively recent emergence of an autonomous regional administration in Kurdistan. This has greatly affected the implementation of this study. For example, if available, correct data on rural out-migration would have helped plan the sampling of local community members in Ruste. Where data are available, they can prove difficult to obtain because of the bureaucratic working environment in the Kurdistan region, a problem also encountered in other countries such as in China (Roy et al., 2001).

The present internal political conflicts with ISIS in the Kurdistan region made a field trip to Kurdistan to conduct face-to-face interviews with stakeholders for the follow-up survey impractical (section 7.5.5). Therefore, interviews were conducted by phone and Skype instead, but this is likely to have affected the rapport between interviewer and interviewee (Sturges and Hanrahan, 2004).

8.5 Implications for Ecotourism Planning in the Kurdistan Region

This study evaluated participatory ecotourism planning approaches in an environment of political conflict. While an extensive body of research has been conducted on ecotourism development in politically stable areas in developed countries such as Australia and New Zealand (Hall et al., 1994) and in developing countries such as Jamaica (Altinay et al., 2007), less research in this field has been carried out in post-conflict settings. In addition, the literature review identified various research publications about tourism and ecotourism in neighbouring countries, including a study that analysed the potential for ecotourism development in Golhisar district, Turkey (Yılmaz, 2011) and a study of the planning and development of cultural tourism and ecotourism, Iran (Azimi and Hajipour, 2008). However, no study was found to have investigated the potential for ecotourism development in the Kurdistan region. Consequently, the present research focused on the Kurdistan region of Iraq, which has been scientifically isolated from the rest of the world for more than two decades and under-studied, due to ongoing insecurity.

In order to coherently develop ecotourism in the Kurdistan region, there is a need to strengthen relationships between stakeholders including local communities. In other settings, such as in an eco-travel destination named Alishan in Taiwan, interaction among different tourism stakeholders was reported to be an important component behind its sustainability (Tsaur et al., 2006). Elsewhere, such as in Pamukkale in Turkey, lack of coordination between stakeholders due to a centralised and hierarchical decision-making structure led to difficulties in tourism planning

(Yuksel et al., 1999). In order to improve stakeholders' relationships in ecotourism development, there should be some proportional distribution of economic benefits between them, including to the local community. There should also be programmes to strengthen the environmental knowledge of all stakeholders, which will ultimately increase their ability to successfully participate in ecotourism management (Zhang and Lei, 2012). Specific practical approaches which could be used to strengthen relationships between stakeholders include the "People Empowering People" approach (Page and Czuba, 1999, p. 4) and the "Cultural Heritage and Peacebuilding" programme (UoL, 2013), which are further described in section 8.6.2 below.

An example from Bigodi village in Uganda indicated that local community attitudes towards conservation became more positive when they were involved in conservation (Lepp and Holland, 2006). In the Beimen District case study in Taiwan, Zhang and Lei (2012) found that community environmental education led to more positive attitudes towards ecotourism development. Environmental knowledge can be increased through educational programmes, such as wildlife conservation workshop targeting elementary school teachers as conducted in Columbia by White and Jacobson (1994) or summer conservation education camps targeting youths as conducted in Florida by Kruse and Card (2004). Studies from elsewhere, e.g. Wolong Nature Reserve of Giant Panda in China (He et al., 2008) and a national park in Uganda (Infield and Namara, 2001), also suggest that unless benefits from conservation are equally distributed among stakeholders and within the local community, people's support for conservation and ecotourism programmes may waiver. Therefore, this evidence suggests the HSNP development and Ruste ecotourism project would both benefit from greater community involvement, benefit-sharing and environmental education.

Furthermore, a particular concern emerging from this study is the GBT's potential plans for compulsory land and housing acquisition in Sakran. Such a programme is clearly a form of 'fortress conservation' (Siurua, 2006a, p. 73), at odds with ecotourism tenets (see section 6.3.3), and needs urgent reconsideration.

Creating natural reserves, such as national parks and KBAs, is an important step to promote conservation of natural resources and preservation of cultural traditions in Kurdistan. According to Scheyvens (1999) and Garrod (2003b), such reserves improve the quality of planning and decision-making and, at the same time, facilitate people to understand ecotourism in their areas. Unless urgent steps are taken to develop and increase such reserves in Kurdistan, both natural and cultural heritage could be greatly affected by unplanned development, such as the increase in holiday homes, as discussed in section II of 6.4.1 and Figure 43, which is taking place at the cost of natural and cultural resources. In other post-conflict settings, such as Lebanon, the gazetting of nature reserves has played an important role in marketing ecotourism (Shackley, 2004). However,

since the Kurdistan region lacks such natural reserves it remains challenging to market the region to ecotourists . In contrast, the excessive effort by the KRG to develop and market the Kurdistan region as a mass tourism destination (section 4.2) may detract from efforts to market it as an ecotourism destination, a problem observed by Altinay et al. (2007) in their case study of ecotourism in Jamaica. More generally, the government should encourage NGOs with appropriate experience to get involved in establishing national parks and developing ecotourism. Such organisations may be better placed than government to work with local communities, given current mistrust of government bodies. This strategy successfully worked in In Madagascar, for instance, where different local and external actors were drawn into partnerships with global public-private networks in conservation policy-making and international financial institutions such as the World Bank. For example, NGOs such as the Wildlife Conservation Society have been involved in directly managing national parks, through arranging debt for nature swaps (such as from World Bank) and lobbying the national government over particular environmental policy directions (Duffy, 2006).

Accessing data for research from administrative organisations in Kurdistan conduction proved difficult and requires complex and time-consuming procedures and approvals from heads of institutions, sometimes depending on personal relationships. For example, attempts to obtain an up-to-date road network of Kurdistan from the Ministry of Planning were unsuccessful. One solution to this would be to generate a centralised repository of data for the KRG, where relevant meta-data and access arrangements would be recorded. However, this would take considerable political effort.

Over and above all of these issues, however, the ongoing political instability in the Kurdistan region is already negatively affecting ecotourism development as, for example, security and food become higher priorities than ecotourism development. In addition, the number of national and international tourists to Kurdistan decreased in late 2014 due to the internal conflict with ISIS, as stated by the GBT. Causevic and Lynch (2013) indicate that political stability and personal safety are prerequisites for tourism development. Given the rapidly changing security situation, there is a need to build contingency plans in the form of ‘crisis management planning’ (Pennington-Gray and Pizam, 2011; Sönmez et al., 1999) to prevent the collapse of any ecotourism-related programme. Such plans were recommended by Issa and Altinay (2006) to helped bolster the resilience of tourism and ecotourism in post-civil war Lebanon.

Despite these negative impacts, destinations such as Halapja, villages destroyed by the Saddam Hussein regime and caves used by Peshmerga fighters in the Ruste valley (see section II of 6.4.1) may all potentially be considered as landmarks of interest for international tourists in much the same way as Hiroshima and Nagasaki are in Japan (Cooper, 2006). Regardless of political conflicts,

tourism may still take place in Kurdistan. Such a case can be seen in Palestine where tourists are attracted to Bethlehem and its segregation wall as a new experience that differs from a traditional holiday (Isaac, 2009). At the meantime, wars could be important drivers in propagating tourism in some countries, as seen in Vietnam since the war in 1955-1975. Post-war Vietnam has become an attractive destination for Western travellers intrigued by the high profile war through which Vietnam is represented in tourism literature, popular media, academia, journalism and politics (Alneng, 2002).

8.6 Implications for Future Research

Implications for future research could be divided into two parts, discussed in the following two sub-sections: data requirements for ecotourism development in Kurdistan, and further research in participatory planning in politically unstable areas.

8.6.1 Data Requirements for Ecotourism Development in Kurdistan

Each chapter of the thesis points to specific deficiencies in the data currently available for planning ecotourism development in Kurdistan. These deficiencies could be addressed as follows:

i) The stakeholders consulted in Chapters 5 and 7 included only one international tour operator (section 7.3.3), and so the market potential of the proposed ecotourism sites was never evaluated by respondents with strong insights into international tourism market segments. Therefore, future research could include an assessment of the demand for ecotourism in Kurdistan from the perspective of more experienced international tour operators (Curtin and Busby, 1999; López-Espinosa de los Monteros, 2002). Such an exercise could also include consultation with international organisations such as the World Tourism Organisation (UN-WTO) and the International Ecotourism Society.

ii) In Chapter 6, which investigated the perspectives of the local community in Ruste village, the unexpected scale of out-migration meant that only those still living in the valley were consulted. Out-migrants who had left the valley were not consulted, meaning the consultation was incomplete and a possible key social objective of ecotourism – to draw out-migrants back to the local community – was less likely to be encouraged by the stakeholder engagement. Similarly, little attempt was made to examine conflicts within the local community. Specific steps could be taken to address these issues:

a. Future research could consider consulting with out-migrants alongside those who remained behind (section 6.5.5). Such research would also investigate out-migrants' potential future plans to return to their villages. More generally, the phenomenon of rural out-migration deserves further investigation, for example through large-scale household surveys.
b. Following others, such as Liu et al. (2010) and Xu et al. (2006), local community members' attitudes and intentions towards ecotourism could be examined in relation to socio-demographic characteristics such as gender, age, income, occupation and/or education level. The current research in Ruste (Chapter 7) did not consider such socio-demographic characteristics. Because it was, qualitatively, recognised that participants with different genders, age ranges or educational levels provided similar perspectives, with the exception that elderly respondents had more information about the KRG plans for ecotourism development in Ruste.

iii) Finally, Chapter 7 highlighted numerous limitations in data available for spatial planning. Because of limited resources, no attempt was made to follow up the GIS analysis with site visits. These limitations could be addressed as follows:

a. The current research could not find evidence of sufficient scientific surveys on the cultural and natural heritage of certain areas. This may have resulted in excluding some more important KBAs, that have not been surveyed in the report by Nature Iraq NGO (Ararat et al., 2009), for MCE analysis (see section 7.3.2). Thus, future studies should include surveys to understand more in-depth ecological survey work in Key Biodiversity Areas (Knight et al., 2007) and conduct a basic inventory of Kurdistan's cultural heritage (Bessière, 1998). This will help to map biodiversity and cultural heritage within any future MCE and GIS analysis.
b. Qualitative evaluation schemes should be drawn up to address the fragility of the natural and cultural heritage of the protected areas, including the potential ecotourism sites, to resist the negative impacts from tourism pressure. The current research could not find evidence of the existence of such qualitative evaluation schemes for the Kurdistan region. In Italy, for example, Petrosillo et al. (2006) developed an approach to estimate the pressure (number of tourists in a sub-region) and the proportion of the protected area that draws tourists to each sub-region, in order to provide relevant operational indicators to manage these areas.
c. It would be beneficial to quantify levels of unemployment, service access, and assets among communities living within the HSNP and in areas shortlisted for ecotourism development, as well as their attitudes and intentions towards conservation, in order to form a baseline for subsequent impact assessment (Xu et al., 2006; Jim and Xu, 2002).

Under this impact assessment, the socio-economic situation of local community first needs to be considered and then to be re-assessed to gauge any impact of conservation programmes in the HSNP (Garrod, 2003b). Should such an impact assessment have been available prior to the present research in Ruste, examining local people's attitudes and intentions towards ecotourism development would have been easier and more accurate. Therefore, it is suggested to investigate local communities' cultural, economic, educational and environmental background prior to examining their reactions to a proposed ecotourism project. This, in turn, will more accurately quantify the discrepancy between locals' attitudes and intentions towards such projects.

d. When more data become available, future studies could include more criteria in the MCE analysis, such as tourism viewpoints or landscape character (Kim and Pauleit, 2007), an updated road network, public services, health centres, land use/cover, and local community concerns such as rural unemployment or out-migration (Tudes and Yigiter, 2010; Hossain et al., 2009). MCE analysis for selecting and evaluating potential ecotourism sites, in chapter 7, did not consider the above-mentioned criteria due to the lack of relevant spatial data (sections 7.3.2and 7.3.4). Furthermore, different potential ecotourism sites could be selected by incorporating national and international tour operator and tourists' opinions (Ghahroudi Tali et al., 2012), in addition to those of local stakeholders. The gravity modelling approach, used for the criteria of KBAs, could be extended to incorporate other criteria, such as the supply of suitable accommodation (Sharpley, 2000).

8.6.2 Further Research in Participatory Planning in Politically Unstable areas

Future research in participatory planning in post-conflict and politically unstable settings could intend to explore the following directions:

i) There is a need to conduct long-term, longitudinal studies of participatory planning techniques in post-conflict areas. For this purpose, participatory approaches, such as Ketso workshops and questionnaire surveys, could be used repeatedly and iteratively with the same stakeholders. This could be done, for instance, every year for a few years. In this case, it might be possible to explore whether people's attitudes towards participatory approaches change over time, by monitoring the drop-out of stakeholders from the participatory structure, when not attending future workshops; examining the extent of communication between stakeholders; investigating the extent to which it is possible for different stakeholders to arrive at consensus decisions, and explore the variables when

consensus is not clear; assessing benefit sharing with all stakeholders, particularly with local communities; and examining environmental knowledge on the part of stakeholders, particularly in local communities.

ii) In order to consider whether there is any inter-relationship between local people's attitudes and intentions towards ecotourism development in Ruste, for the 17 statement pairs (Table 10), the current research considered calculating the correlation between the raw respondent scores for attitudes and intentions for individual pair of statements using Spearman's correlation coefficient (Table 12). This was done in addition to assessing the mean aggregate attitude and intention scores per statement, looking at each of Lai and Nepal's four dimensions separately (Table 13), see section III of 6.3.3. Therefore, future research elsewhere can do the same. i.e. to calculate the correlation between the raw respondent scores for attitudes and intentions for individual pair of statements, to further examine whether these domains mask considerable variation in attitudes and intentions.

iii) The approach to assessing the logical coherence and consistency of stakeholders input to the GIS-based MCE process, i.e. the process of cross-checking specific ecotourism destinations proposed by stakeholders against proposed criteria and their associated weights to see if these are consistent with one another (section 7.5.4), needs to be evaluated in other settings. The same approach could even be evaluated with other stakeholder groups and other planning projects, such as projects to identify suitable sites for afforestation or residential development. Furthermore, in order to examine whether the consistency of stakeholder input improves over time, it is important to conduct such evaluation over time.

iv) In order to assess the consistency of PESs with a list of criteria suggested by the stakeholders, the current research calculated MCE-derived scores for a second set of comparator sites (some existing hotel locations, in this case) in addition to those PESs by the stakeholders (section 7.3.5). However, these MCE scores would have been different, and so the final assessment score between PESs and ecotourism criteria, if a different set of comparator sites (such as some tourism destination from a tourist guide book) had been chosen for this purpose. Therefore, in future research, the sensitivity of the technique to the choice of such comparator sites needs to be evaluated and guidelines developed for selecting appropriate comparison sites.

v) In order to evaluate the matrix for each PES, the current research calculated the weighting for each criterion, based on the combined number of stakeholder votes (section 7.3.2) and the mean Likert rating (section 7.3.4). Therefore, future research could consider the consistency of input from each individual stakeholder, rather than the group as a whole.

vi) Investigate the potential of various private stakeholders, such as NGOs, to work independently from the government in developing participatory planning. This will assess whether or not a non-governmental model towards improving local livelihoods, through community education and empowerment, whilst enhancing natural conservation and cultural preservation, works better than a centralised model. The impact of participatory planning, in this case, could be monitored by examining the attitudes of marginalised local communities towards participatory planning.

8.7 Conclusion

One of the first studies to research ecotourism development in the Kurdistan region of Iraq, this research has evaluated different participatory approaches for ecotourism planning in the study site. In this context, there are similarities with other studies reported in the literature: it illustrates some of the challenges encountered in a post-conflict area while examining the feasibility of participatory planning and ecotourism development. A recurring theme was the ways in which the centralised structure of a government affect ecotourism development.

While the Kurdistan region's outstanding natural beauty and cultural heritage have been scarred by wars and political conflicts, there is still good potential for the region to develop ecotourism. This potential exists in the abundance of forests, wildlife, waterfalls, mountains, historical towns and villages. In addition, there are new attempts to protect the environment and cultural heritage through the establishment natural reserves, such as the Halgurd-Sakran National Park, and as part of efforts to boost ecotourism, raise awareness towards the local environment, and improve the socio-economic conditions of local communities.

Nevertheless, this research suggests that the ecotourism development is negatively affected by the lack of consideration for multiple stakeholders, particularly local communities. Furthermore, while most stakeholders, including the local community in Ruste, have accepted the three participatory tools used for data collection here (Chapters 5, 6 and 7), they considered the government to be the key player in ecotourism development and stakeholders, blaming it for creating problems and holding it responsible for solving them. This might be attributed to a number of factors, including: a lack of participatory governance; lack of education; lack of experience; and the history of dictatorship and associated adaptation to the centralised governance system, where decisions are made through an oligarchy.

Similarly, the concept of local community participation in ecotourism planning is not considered by other stakeholders, in particular, the KRG institutions. Rather, the other stakeholders did not consider the local community as a legitimate stakeholder, and the latter is thus excluded from participation in decision-making and the potential economic benefit sharing of tourism. This was made evident by a lack of awareness about the proposed ecotourism project in Ruste village, indicating poor communication between the government and local people. The local community's attitude towards conservation and ecotourism development was affected by their lack of education and lack of engagement in environmental issues. Alongside this, mistrust in government, evidenced in the local community's fear of land acquisition, is found to build discrepancy between their attitudes and intention towards conservation and ecotourism development. This discrepancy also stems from the recent historical events such as displacement, villagisation, and negative socio-political situations. This further prevents local communities from participating in ecotourism development. It is therefore suggested that the history of local communities ought to be considered by management authorities when planning for conservation programmes and ecotourism development. Moreover, ecotourism development is significantly affected by the cultural loss resulting from ongoing rural out-migration, due to poor socio-economic conditions and internal political conflict (section 6.5.2). On the other hand, urbanisation, as evidenced the increase of holiday houses, is further contributing to the cultural loss (section 6.5.6).

Furthermore, this research suggests that people in post-conflict settings, Kurdistan in this case, have not bought into the ideal of participation. This is apparent, for example, in the lack of any proposed criteria concerning the local community in the application of MCE indicates that local communities are marginalised by other stakeholders. It can, therefore, be argued here that conducting multi-stakeholder consultation in such contexts, i.e. post-conflict contexts, is fundamental. This research suggests that the iterative approach of using stakeholder consultation, through the GIS-based MCE, helps to assess the extent of change in stakeholders' views and knowledge towards the environment and ecotourism development. This also assesses the degree of consensus achieved between stakeholders in politically instable settings. It can be argued here that the iterative basis of this research itself might have built some consensus between stakeholders through increasing their awareness of ecotourism. Considering stakeholders' opinions to identify PESs and criteria is also important for obtaining feedback at all stages of ecotourism planning process when using a GIS-based MCE approach. In addition, this study effectively examines the value of using gravity modelling as an alternative to distances to nearest features as a criterion, and also using votes by disparate stakeholders to assess the consistency of stakeholders' input, as an alternative approach to the AHP.

Some new analytical techniques are developed in this thesis that can also be applied in different settings. These techniques included: i) assessing the correlation between the raw respondent scores for people's attitudes and intentions for individual pair of statements concerning ecotourism development; ii) evaluating the input by stakeholders when assessing suitability criteria for ecotourism development in MCE by cross-checking proposed ecotourism destinations against criteria that make destinations suitable; and iii) the suitability criteria in GIS-MCE are assessed with a different set of comparator sites, identified by the researcher.

The effect of the unstable political situation, such as the effect of ISIS activity, on the overall economic, political and security situation, and particularly the tourism sector, has been significant in the region. The absence of a clear plan to contain or stop the conflict in the region might suggest that plans for ecotourism development are jeopardised, since ecotourism and even tourism have by necessity become a low priority and the number of international visitors has dramatically dropped.

Finally, greater empirical insights are needed to cover a broader range of stakeholders' views and a wider scale of study areas in post-conflict settings. In addition, a deeper understanding on how post-conflict countries can create a balance between the economic benefits of tourism and sustainable forms of development is needed.

Appendices

Appendix 1 Themes used to collect information during the Ketso-derived workshop represented as EASEL, and the colour representation of different cards

- **Economic**: ideas related to money and finances, e.g. the flows of money in the area or through tourism/ecotourism.
- **Activities**: ideas related to different activities that people do in the area.
- **Social**: ideas to do with how people are organised including networks, institutions, working together, e.g. ideas around politics and education.
- **Environment (built) & Infrastructure**: ideas related to built environment, e.g. buildings, neighbourhoods and infrastructure that make up human community and human-made elements of an area, e.g. technology and tools.
- **Landscape & Ecology**: ideas related to the ecosystem, water systems, geology and soil and natural energy sources, and features created by natural processes, e.g. essential elements for life.

Different coloured cards had different meanings:

- **Yellow cards**: goals emerging from the ideas discussed and overall vision for the future.
- **Brown cards**: existing assets.
- **Green cards**: future possibilities and solutions, such as possible new activities, training or technologies.
- **Grey Cards**: Challenges – key barriers to successful ecotourism implementation.

Other feature/symbol cards referred to:

- **Exclamation** cards : Discussion about one another's ideas, such as questions / comments.
- **Tick** cards : identifying priorities, the most important ideas.

See Ketso (http://ketso.com/examples-case-studies for more information on the workshop process used to develop the questions and themes here.

Appendix 2 Ketso-Derived Workshop Agenda

Workshop Agenda	
21st February, 2012 – Social and Cultural Centre, University of Duhok	
Overview Workshop Plan 7 hours (Activities and Sequencing)	

	Stage of Workshop	**Duration (m)**
1.	Arrival; Tea and coffee, (08:00 – 08:30)	
2.	Introduce myself, and have the participants to introduce themselves, (08:30 – 08:45)	**15**
3.	Tourism vs. ecotourism / Pictures / Requirements of ecotourism / Resources, (Presentation, Sarook) (08:45 – 09:00)	**15**
4.	Review the 'Aim, Objectives and Benefits' of the workshop, (09:00 – 09:15)	**15**
5.	The importance of ecotourism / Brain storm (09:15 – 09:30)	**15**
6.	**Wild visions of success / Brief warm up exercise*** (yellow) (09:30 – 10:00): in an ideal world, what would you like to see in this area? Write down three words or phrases (3 cards) each that would describe what you would most like to see in the area. Write down what you like most about a potential ecotourism project – what interests you? These don't have to be realistic at this stage.	**30**
7.	**Existing assets / what is good about the Region? (Brown)** (10:00 – 10:30): Write ideas on own, start to place cards under the themes where they seem to fit, adding more as going along	**30**
8.	**Break** (10:30 – 10: 45)	**15**
9.	**Future possibilities / what could we differently? (Green)** (10:45 – 11:15): Creative thinking 1, be as creative and open as possible, no right or wrong answers at this stage. Start with time on own to develop ideas, and then share them with others.	**30**
10.	**Discussion about each other's ideas** (exclamation cards '!') (11:15 – 12:00): question / comments / why important, participants. People should stand up and go round the plaques and place the comment cards on each other's ideas, by deciding which ideas they think are the most important (! icons) and stating why important (white cards). And also to ask questions.	**45**
11.	**Key challenges*** (Grey) (12:00 – 12:30): what are the key challenges in the Region, and what might be the barriers to implementing these new ideas you have been developing? I may add some key challenges pre-prepared, or issues I wish participants to consider adding at this stage.	**30**
12.	**Solutions to challenges (Green)** (12:30 – 13:00): creative thinking 2, finding solutions to the challenges.	**30**
13.	**Lunch Break** (13:00 – 14:00)	**60**
14.	**Identifying priorities** (Tick √ & Triangle Δ) (14:00 – 14:30): start with 1-2 tick icons per person, placed without discussion. Then as a group re-arrange the icons and decide on priorities. Warning triangles can show areas of disagreement.	**30**
15.	**Goals*** (Yellow) (14:30 – 15:00): What goals are suggested by the icons showing priorities? How will you achieve these goals?	**30**
16.	**Key next steps and actions*** (Yellow) (15:00 – 15:30): a. What are the key next steps (1-3 actions) suggested by the ideas on the workspace and the clusters of icons? b. What were the key ideas that came up for you that you will do next?	**30**

	c. What are you thinking of that you will try to influence other to do? d. What is important that you can't influence but that other need to do? Use white comments cards to show who could do what (if there is time)	
17.	**Feedback** (15:30 – 16:00)	**30**
18.	**Conclusions and outcomes** (16:00 – 16:15) a. re-iterate key actions that need to be acted upon, b. photos to be taken of all the workspaces and made available to participants, c. key messages to be considered by community group and fed to relevant bodies, small team will create an action plan from the key ideas.	**15**
*** Squashable stages**		

Appendix 3 Excel spreadsheet used to analyse the workshop results

Preliminary Stakeholder Workshop						
Theme on Bran	Leaf Colour	Meaning	Participants' Ideas (written on leaf)	Importance	Advances Goals	Cross-cutting themes
Activities	Brown	What works well	Exploiting all archeological sites which have special characteristics	2		Ecotourism Attractions
Activities	Green	Future possibilities	Creating qualified tourism staff	1		Education and Training
Activities	Green	Future possibilities	Providing the complete right (plenipotentiary) to the experts in the field of implementing tourism implementations	1		Experience
Activities	Green	Future possibilities	Coordinate with civilian society organizations	1		Relationships/Cooperation
Activities	Green	Future possibilities	Rural residents problems	1		Community
Activities	Yellow	Next steps/reflections	Publishing archeologic and tourism awareness in Kurdistan	1		Media
Activities	Brown	What works well	Camps within a special park for camping			Ecotourism Attractions
Activities	Brown	What works well	Developing museums			Ecotourism Attractions
Activities	Brown	What works well	Archaeological sites			Ecotourism Attractions
Activities	Brown	What works well	Using sites which have a natural environment to develop tourism			Ecotourism Attractions
Activities	Brown	What works well	Exploiting constructions (buildings) which have heritage nature			Ecotourism Attractions
Activities	Brown	What works well	Developing important archaeological sites			Ecotourism Attractions
Activities	Green	Future possibilities	Environmental education			Education and Training
Activities	Green	Future possibilities	Environmental protection regulation		1	Administration
Activities	Green	Future possibilities	Providing electricity networks especially for tourism places			Administration
Activities	Green	Future possibilities	Promoting tourism business through launching tourism departments in universities through out Kurdistan Region			Education and Training
Activities	Green	Future possibilities	Producing more strict regulations/rules to protect the environment	1		Administration
Activities	Green	Future possibilities	Developing villages and rural areas			Community
Activities	Green	Future possibilities	Publishing environmental awareness to all community sections to protect natural areas			Awareness
Activities	Green	Future possibilities	Increasing forests area and that to plant all barren spaces		1	Initiatives
Activities	Green	Future possibilities	Determining (choosing) the areas which need to be developed and determining the elements which needs to be developed			Ecotourism Attractions
Activities	Green	Future possibilities	Rules/regulations about the environment			Administration
Activities	Green	Future possibilities	Increasing watercourses which are regarded essential to flora and fauna distribution			Ecotourism Attractions
Activities	Green	Future possibilities	Observing the implementation of the rule/regulation regarding penalizing (fining) those who harm the environment			Administration
Activities	Green	Future possibilities	Respect all regulation/rules and activating them		1	Awareness
Activities	Green	Future possibilities	Law is above all (no differences between and among different community/society classes		3	Awareness
Activities	Green	Future possibilities	Stick with the rule/regulations in all government departments		1	Education and Training
Activities	Green	Future possibilities	Putting the right person in the right position			Experience
Activities	Green	Future possibilities	Making strategic plans by experts		1	Experience
Activities	Green	Future possibilities	Putting the right person in the right position		1	Experience
Activities	Green	Future possibilities	Putting the right person in the right position		1	Experience
Activities	Green	Future possibilities	Introduction of environmental awareness curriculums into educational levels		1	Education and Training
Activities	Green	Future possibilities	Introduction of specialized colleges in environmental field			Education and Training
Activities	Green	Future possibilities	Putting specialized experts as executives			Experience
Activities	Green	Future possibilities	Making environmental awareness in educational curriculums			Education and Training
Activities	Green	Future possibilities	Observing the rule/regulation by the authorities (government)			Administration

Activities	Green	Future possibilities	Giving a bigger role to the organizations working in environmental field			Relationships/Cooperation
Activities	Green	Future possibilities	Activating NGOs' role in environmental awareness field			Relationships/Cooperation
Activities	Green	Future possibilities	By the means of right information media			Media
Activities	Green	Future possibilities	Starting awareness from hight authorities to children			Education and Training
Activities	Green	Future possibilities	Spreading awareness through curriculum in several stages of school			Education and Training
Activities	Green	Future possibilities	Dedicating different information media for spreading awareness			Media
Activities	Green	Future possibilities	By information media			Media
Activities	Green	Future possibilities	Educational and academic bodies			Education and Training
Activities	Grey	Challenges	Deficiency of rules/regulations and no implementations			Administration
Activities	Grey	Challenges	Political problems and undeveloped local power resources			Security and Policy
Activities	Grey	Challenges	Omission of the rules/regulations of archaeological sites and heritage, which protect these sites and heritage			Awareness
Activities	Grey	Challenges	Weakness of environmental rules/regulations			Administration
Activities	Grey	Challenges	Lack of the availability of expert staff in environmental field			Education and Training
Activities	Grey	Challenges	Omission of the rules/regulations related to archaology and ecotourism			Awareness
Activities	Grey	Challenges	The existence of landmines			Security and Policy
Activities	Grey	Challenges	Scurity matters especialy on international boarders			Security and Policy
Activities	Grey	Challenges	Lack of expert staff			Experience
Activities	Grey	Challenges	Not implementing the rules/regulations accurately			Administration
Activities	Grey	Challenges	Unavailability of necessary facilities and services			Administration
Activities	Grey	Challenges	Not empowering the expert staff			Experience
Activities	Yellow	Next steps/reflections	Special teams to discover (unearth) sites			Experience
Activities	Yellow	Next steps/reflections	Effective and guided tourism information media			Media
Activities	Yellow	Next steps/reflections	Connecting all archeological and tourism sites with a good road network (system)			Administration
Activities	Yellow	Next steps/reflections	Landmines removal			Security and Policy
Activities	Yellow	Next steps/reflections	Exploiting all sites which characterized by their natural and geographical features for tourism purposes			Ecotourism Attractions
Activities	Yellow	Next steps/reflections	Using Erbil Citadel as an example of the most ancient inhabited citadel in the world			Ecotourism Attractions
Activities	Yellow	Next steps/reflections	Kurdistan free from landmines			Security and Policy
Activities	Yellow	Next steps/reflections	Increasing forests area			Initiatives
Activities	Yellow	Next steps/reflections	Environmental and tourism protection forces			Administration
Activities	Yellow	Next steps/reflections	Objective opinions and proposals should be taken seriously			Experience
Activities	Yellow	Next steps/reflections	Awareness			Awareness
Activities	Yellow	Next steps/reflections	Awareness			Awareness
Activities	Yellow	Next steps/reflections	Awareness			Awareness
Activities	Yellow	Next steps/reflections	Awareness			Awareness
Activities	Yellow	Next steps/reflections	Awareness			Awareness
Activities	Yellow	Next steps/reflections	Awareness			Awareness
Activities	Yellow	Next steps/reflections	Regulation			Administration
Activities	Yellow	Next steps/reflections	Regulation			Administration
Activities	Yellow	Next steps/reflections	Regulation			Administration
Activities	Yellow	Next steps/reflections	Regulation			Administration
Activities	Yellow	Next steps/reflections	Regulation			Administration
Activities	Yellow	Next steps/reflections	Producing a direct and an understandable environmental law/regulation			Administration
Activities	Yellow	Next steps/reflections	Feeling responsibility and resolving all fundamental points			Awareness
Activities	Yellow	Next steps/reflections	Ready to participate in environmental awareness/education in schools			Education and Training
Activities	Yellow	Next steps/reflections	Rising reccommendations and reports about the environment to the governor and council of ministers to help taking the right actions			Administration
Environment (Built)	Yellow	Next steps/reflections	Limit urbanization	1		Administration

Environment (Built)	Yellow	Next steps/reflections	Ecological survey	1	1	Education and Training
Environment (Built)	Yellow	Next steps/reflections	National parks	1		Ecotourism Attractions
Environment (Built)	Brown	What works well	Watercourse			Ecotourism Attractions
Environment (Built)	Brown	What works well	Mountain chain with unique topography			Ecotourism Attractions
Environment (Built)	Brown	What works well	Flora resources			Ecotourism Attractions
Environment (Built)	Brown	What works well	Untouched pristine water spring and waterfall and utilizing them the way which best serves the nature			Ecotourism Attractions
Environment (Built)	Brown	What works well	Distinctive mountain edges (sides)			Ecotourism Attractions
Environment (Built)	Brown	What works well	Very ancient caves			Ecotourism Attractions
Environment (Built)	Brown	What works well	Water resources			Ecotourism Attractions
Environment (Built)	Brown	What works well	Waterfalls			Ecotourism Attractions
Environment (Built)	Brown	What works well	Threatened fauna wildlife resources			Ecotourism Attractions
Environment (Built)	Brown	What works well	Mineral water resources			Ecotourism Attractions
Environment (Built)	Brown	What works well	Climate/weather (four seasons)			Ecotourism Attractions
Environment (Built)	Brown	What works well	Climate			Ecotourism Attractions
Environment (Built)	Green	Future possibilities	Making laws and legislations to develop tourism work			Administration
Environment (Built)	Green	Future possibilities	Observance of laws and regulations			Administration
Environment (Built)	Green	Future possibilities	Awareness		2	Awareness
Environment (Built)	Yellow	Next steps/reflections	Natural reserves			Ecotourism Attractions
Environment (Built)	Yellow	Next steps/reflections	Gara mountain climbing			Ecotourism Attractions
Environment (Built)	Yellow	Next steps/reflections	Natural reserves			Ecotourism Attractions
Environment (Built)	Yellow	Next steps/reflections	Building tourism compound with fair prices			Initiatives
Environment (Built)	Yellow	Next steps/reflections	Ecologicaly enlightened decision makers			Experience
Economics	Yellow	Next steps/reflections	Utilizing archaeological sites to develop tourism	1		Ecotourism Attractions
Economics	Yellow	Next steps/reflections	Giving facilities to farmers to use one or more room/s for tourism purposes in order to increase their income	1		Community
Economics	Brown	What works well	Using Shirin Mountain as an important ecological reserve in Kurdistan			Ecotourism Attractions
Economics	Green	Future possibilities	Building of ecological villages - Encouragement			Ecotourism Attractions
Economics	Green	Future possibilities	Benefiting from the 'Tourism Institute' in Erbil			Education and Training
Economics	Green	Future possibilities	International support (subsidization)			Finance/Funding
Economics	Green	Future possibilities	Government support (subsidisation)		1	Finance/Funding
Economics	Grey	Challenges	No support from higher authorities			Finance/Funding
Economics	Grey	Challenges	Concerns about growing the economy through tourism and archaeology			Finance/Funding
Economics	Grey	Challenges	Utilizing tourism sites by people with physical (monetary) influence			Finance/Funding
Economics	Grey	Challenges	absence of dedicating the right budget for the desired projects			Finance/Funding
Economics	Grey	Challenges	Monetary problems			Finance/Funding
Economics	Yellow	Next steps/reflections	Handicrafts attention			Community
Economics	Yellow	Next steps/reflections	Telpherages on mountains in Kurdistan			Ecotourism Attractions
Economics	Yellow	Next steps/reflections	High positions starting from ministries			Administration
Landscapes and Ecology	Yellow	Next steps/reflections	Natural reserves	1		Ecotourism Attractions
Landscapes and Ecology	Yellow	Next steps/reflections	Making a map for Kurdistan Region to determine phenomenal features which can be used for tourism purposes	1	1	Initiatives

Landscapes and Ecology	Brown	What works well	Water resources			Ecotourism Attractions
Landscapes and Ecology	Brown	What works well	Utilizing important waterfalls			Ecotourism Attractions
Landscapes and Ecology	Brown	What works well	Biodiversity			Ecotourism Attractions
Landscapes and Ecology	Brown	What works well	Flora and fauna			Ecotourism Attractions
Landscapes and Ecology	Brown	What works well	Plenty of rivers			Ecotourism Attractions
Landscapes and Ecology	Brown	What works well	Natural landscapes			Ecotourism Attractions
Landscapes and Ecology	Brown	What works well	Biodiversity			Ecotourism Attractions
Landscapes and Ecology	Brown	What works well	Plenty of caves, especially the unique caves such as Geze Village Cave			Ecotourism Attractions
Landscapes and Ecology	Brown	What works well	Landscape			Ecotourism Attractions
Landscapes and Ecology	Brown	What works well	Hawraman nature			Ecotourism Attractions
Landscapes and Ecology	Yellow	Next steps/reflections	Eco-camp			Ecotourism Attractions
Landscapes and Ecology	Yellow	Next steps/reflections	Natural reserves			Ecotourism Attractions
Landscapes and Ecology	Yellow	Next steps/reflections	Reserves			Ecotourism Attractions
Landscapes and Ecology	Yellow	Next steps/reflections	Protected national parks		1	Ecotourism Attractions
Landscapes and Ecology	Yellow	Next steps/reflections	Water lakes by building dams			Ecotourism Attractions
Landscapes and Ecology	Yellow	Next steps/reflections	Outstanding phenomenal			Ecotourism Attractions
Landscapes and Ecology	Yellow	Next steps/reflections	Hiking			Ecotourism Attractions
Landscapes and Ecology	Yellow	Next steps/reflections	Natural heritage			Ecotourism Attractions
Landscapes and Ecology	Yellow	Next steps/reflections	Biodiversity			Ecotourism Attractions
Landscapes and Ecology	Yellow	Next steps/reflections	Natural park			Ecotourism Attractions
Landscapes and Ecology	Yellow	Next steps/reflections	Maps to determine archaeological sites			Initiatives
Landscapes and Ecology	Yellow	Next steps/reflections	Flora maps for wild plants			Initiatives
Landscapes and Ecology	Yellow	Next steps/reflections	Maps for water resources			Initiatives
Landscapes and Ecology	Yellow	Next steps/reflections	Maps for soil types			Initiatives
Landscapes and Ecology	Yellow	Next steps/reflections	Maps for fauna distribution			Initiatives
Social	Brown	What works well	Customs and traditions of Kurds	2		Ecotourism Attractions
Social	Yellow	Next steps/reflections	Encouraging Kurdish culture (Food, costume)	2		Ecotourism Attractions
Social	Green	Future possibilities	Promoting ecological (environmental) guidance and education/culture	1		Education and Training
Social	Green	Future possibilities	Concerning about academic/educational subjects which are related to ecotourism during education levels	1		Education and Training
Social	Green	Future possibilities	Strengthening the relationships with authorities with relations such as archaeology and municipalities and agriculture	1		Relationships/Cooperation
Social	Yellow	Next steps/reflections	Rising tourism awareness in the whole sectors of community	1		Awareness
Social	Brown	What works well	Hiking and trekking in remote countryside areas with scenic landscapes			Ecotourism Attractions
Social	Brown	What works well	Adherence to religion			Ecotourism Attractions
Social	Green	Future possibilities	Getting advantage of specialist in their exact field		2	Experience
Social	Green	Future possibilities	Rules and regulations which are implemented by the government			Administration
Social	Green	Future possibilities	Promoting tourism and educational/cultural awareness in the community through publication (media)			Awareness

Social	Green	Future possibilities	Concerning about womens' role to develop ecotourism		Community
Social	Grey	Challenges	No government support for ecotourism		Finance/Funding
Social	Grey	Challenges	Archaeology and tourism sites are not looked after by concerned authorities		Administration
Social	Grey	Challenges	The weakness or lack of environmental awareness with most of government executives		Awareness
Social	Grey	Challenges	The degradation of awareness levels		Awareness
Social	Grey	Challenges	The lack of expert member of staff		Education and Training
Social	Grey	Challenges	The weakness or lack of cultural awareness		Awareness
Social	Grey	Challenges	Globalization		Relationships/Cooperation
Social	Grey	Challenges	Forest fires for arable land		Community
Social	Grey	Challenges	Environmental awareness	4	Awareness
Social	Grey	Challenges	Concerning more about self-interest than public (national) interest		Awareness
Social	Yellow	Next steps/reflections	Decision making and important priorities which approaches us to the goal		Administration
Social	Yellow	Next steps/reflections	Information media and awareness		Media
Social	Yellow	Next steps/reflections	Introduction of ecological concepts into primary school education		Education and Training
Social	Yellow	Next steps/reflections	Educate people		Education and Training
Social	Yellow	Next steps/reflections	Ownership problems		Community
Social	Yellow	Next steps/reflections	Concerning about archaeology and not destructing it by any other constructional work		Awareness
Social	Yellow	Next steps/reflections	Improving the political situation		Security and Policy
Social	Yellow	Next steps/reflections	Ecological awareness		Awareness
Social	Yellow	Next steps/reflections	Creating voluntary services to protect the environment		Community
Social	Yellow	Next steps/reflections	Promoting national folklore in tourism areas		Ecotourism Attractions
Social	Yellow	Next steps/reflections	Placing special touristic cabins in villages or installing simple cabins by farmers to accommodate tourists		Ecotourism Attractions
Social	Yellow	Next steps/reflections	Environmental protection police		Administration
Social	Yellow	Next steps/reflections	Awareness, the goal behind awareness is to understand ecotourism and its application		Awareness
Social	Yellow	Next steps/reflections	Law and informaiton (data)		Administration
Social	Yellow	Next steps/reflections	Ecological awareness for decision executors		Awareness
Social	Yellow	Next steps/reflections	Specified places for agriculture or construction, and determine forbidden places (no-man's-land)		Administration

Appendix 4 Questionnaire sheet for the government administrative stakeholders.

Name of your organisation: .....

Note/ You can dismiss any section of the questionnaire you do not have information about

1. What is your interpretation of ecotourism? (Probe, examples)
   ACTIVITIES & DESTINATIONS:
2. What do you think are the attributes of a good ecotourism destination? (Probe, why? Which attributes are most important?)
3. What ecotourism features do you think would have potential in Kurdistan? (Probe)
4. Where do you think these potential ecotourism activities should be located (MAP)? Why do you think these sites should be chosen? Existing assets (Probe to get detailed locations if unsure)
5. What are the current status of governance, management and funding of these places? (Economic values of places?!)
   STAKEHOLDERS:
6. Who (stakeholders) do you think are considered relevant to participate in potential ecotourism planning process? [Probe: Those who are not already participating in tourism industry]
7. What relationship does your organisation have with other stakeholders? (Private, public). How collaborative is your organisation with them?
   LOCAL COMMUNITY AS STAKEHOLDERS:
8. What relationship does your organisation have with local communities? How collaborative is your organisation with them?
9. What are your opinions about community-managed ecotourism? Local community knowledge to manage ecotourism? (Community empowerment).
10. Do you think that local communities have any role (power) in managing tourism/ecotourism? (Community empowerment).
11. Do you think that local communities have any sort of environmental knowledge? [Probe: Do you recommend any training programmes to increase environmental knowledge for locals?]
12. How do you feel about outsiders (foreigner ownership) becoming involved in this industry?
13. Do you think ecotourism would improve communities' socio-cultural, economic, and/or environmental conditions? How? (Probe). What effect would it have? **(IMPACTS)**
    CHALLENGES / BARRIERS:
14. What are the key challenges in the Region, and what might be the barriers to develop tourism/ecotourism in the sites you proposed? [Probe: What is the extent of security issues involvement in tourism / potential ecotourism activities in the future? Probe: Are there any private and public land-ownership problems?
    SOLUTIONS / RESOURCES:
15. Are there any alternative ways to overcome the challenges you just mentioned above?
16. What are your opinions regarding any potential contributions your organisation could make to develop ecotourism?
17. Are there currently any quality control measures over tourism? Do you recommend any for the potential ecotourism?
18. Do you think that there is any need for any outside support? What kind? How to access it?

Appendix 5 Participant Information Sheet

Study Title: Planning for the Development of a Nascent Ecotourism Industry in Kurdistan Region of Iraq – Preparing a Preliminary Stakeholder Analysis

Researcher: Sarook Sarky **Ethics number**:

Please read this information carefully before deciding to take part in this research. If you are happy to participate you will be asked to sign a consent form.

What is the research about?

My name is Sarook Sarky. I am doing this research project for my PhD degree, and it is to examine the different perspectives of participants on the development of ecotourism in the Region. I wish to ask you about potential ecotourism destinations in Kurdistan, as well as the potential benefits, drawbacks, and obstacles to ecotourism here.

Why have I been chosen?

You are one of the potential stakeholders of the tourism industry in the Region which may include ecotourism in the future and have been recommended to me as someone whose viewpoint is important by my colleagues.

What will happen to me if I take part?

If you take part, you will be asked for your views concerning ecotourism in a brief interview on a one-to-one basis, as well as any suggestions you may have for other people that I could interview.

Are there any benefits in my taking part?

One benefit is that you are helping the researcher conducting his research. And the second and most important benefit goes for the tourism/ecotourism development in Kurdistan Region. You may also find it helpful to have a chance to speak to others with interests in ecotourism through the workshop.

Are there any risks involved?

None, at all. Any comments that you make will be reported anonymously and be treated in confidence.

Will my participation be confidential?

Your responses will be kept confidential following the interview. Any comments that you make will be reported in an anonymous way and the information collected will be kept on a password-protected computer and the files will not be kept for more than 2 years beyond the end of the project. Names will be removed from records of both workshop and interview after they are complete.

What happens if I change my mind?

You have the right to withdraw at any time without your legal rights being affected.

What happens if something goes wrong?

You can contact Dr Martina Prude, Head of Research Governance (+442380 595058, mad4@soton.ac.uk).

Where can I get more information?

You can contact my any of my supervisors (Dr. Mary Edwards M.E.Edwards@soton.ac.uk or Dr. Jim Wright J.A.Wright@soton.ac.uk (+4423 8059 2217).

Appendix 6 Consent Form

Study title: Planning for the Development of a Nascent Ecotourism Industry in Kurdistan Region of Iraq – Preparing a Preliminary Stakeholder Analysis

Researcher name: Sarook Sarky

Study reference: Kurdistan Field Study 1

Ethics reference:

Please initial the box(es) if you agree with the statement(s):

I have read and understood the information sheet (insert date /version no. of participant information sheet) and have had the ☐

I agree to take part in this research project and agree for my data ☐

I understand my participation is voluntary and I may withdraw at ☐

Data Protection

I understand that information collected about me during my participation in this study will be stored on a password protected computer and that this information will only be used for the purpose of this study. All files containing any personal data will be made anonymous.

Name of participant (print name)……

Signature of participant……..

Date……

Selecting appropriate processes for particular contexts requires an analysis of the

goals of the programme and the organisational context in which it will be deployed,

so that the methodologies chosen are 'fit' for the particular context

Sustained support for a project is more likely when the people who are supposed to benefit feel that they have had a say in planning and development (e.g. Handley et al., 1998; Luz, 2000; McFarlane, 2000; Trenam, 2000). Interest in a long-term process is built and sustained when people are able to see their concerns reflected in actions on the ground.

Appendix 7 Workshop participant and questionnaire respondents waves

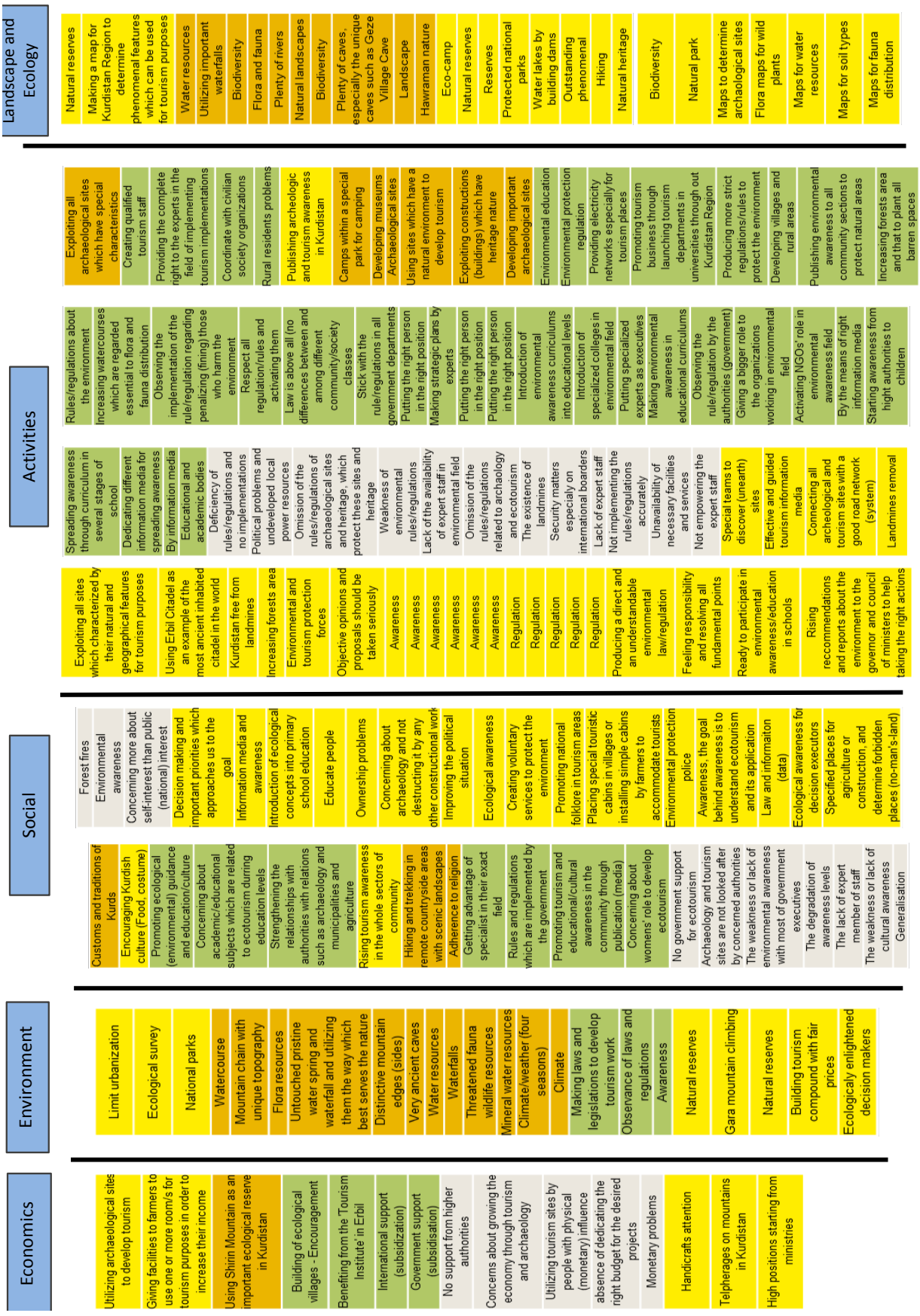
All the names are anonymised, as in waves 1, 2, 3, 4, 5, and 6 for the participants' convenience and confidentiality, and the names are coded e.g. W1, W2, etc. representing the workshop attendees; P1, P2, etc. representing the initial interview participants; and E1, E2, etc. representing extended interview participants

Workshop	**Initial Interviews**			**Extended Interview**	
Wave 1	**Wave 2**	**Wave 3**	**Wave 4**	**Wave 5**	**Wave 6**
W1					
W2	P2* - P7	P14 – E3* - E4		E8*	
W3					
W4	P9 – E1*				
W5	P3* - P10 - P12	P13* - P18	P19* - P21	E9* - E10 – E11	E13* - E14
W6	P1* - P6	P15 - P16 -			
W7	P11				
W8	E2*	E5*			
W9	P4* - P5* - P8	P17* - E6* - E7	P20*	E12*	

(*) Refers to those who were interviewed

Note/ two tour operators from two different tourism companies are coded as P22 and P23 (Initial Survey). Also one oil company worker, one international tour operator, and one religious clerk are coded as E15, E16, and E17 (Extended Survey).

Appendix 8 Meta Ketso from the stakeholder workshop, where colours coding means as: Yellow=Next steps; Grey=challenges; Green= future possibilities; Brown= what works well



Appendix 9 A framework for contemporary ecotourism definition: Key principles and associated elements of ecotourism [Source: adapted from Stacey and Needham (1993) sited by (Donohoe and Needham, 2006)]

Key normative tenets of ecotourism	Associated elements of ecotourism
Nature-based	A. Activity occurs primarily in nature
	B. Healthy ecosystems
	C. Undeveloped/pristine areas (minimal human interference)
	D. Provides opportunity for visits to natural areas
Preservation/ conservation	E. Maintenance and enhancement of ecosystems
	F. Awareness of ecosystem requirements
	G. Collaborative efforts between providers and community (protected area managers, locals, etc.)
	H. Incorporation and implementation of preservation/ conservation into management plan
Environmental education	I. Provision of bio-cultural education for all stakeholders (staff, guests, community, etc.)
	J. Encourage interaction with nature (to provide an experiential/ educational benefit)
	K. Increases awareness and understanding of an areas natural heritage
	L. Empowers visitors and other stakeholders to become involved in issues affecting heritage (both natural and cultural)
Sustainability	M. Achievement of equity and social justice
	N. Maintenance of ecological integrity
	O. Satisfaction of human needs
	P. Social self-determination and cultural diversity
	Q. Integration of conservation and development
Distribution of benefts	R. Equitable local access to resources, costs, and benefits
	S. Benefits compliment rather than replace traditional local practices and activities (fishing, crafts, etc)
	T. Maximises short and long term benefits for visitors, providers, locals, etc.
	U. Improves the quality of life for local people
	V. Complements existing tourism infrastructure
Ethics/ responsibility	W. Ethics based environmentally, socially and culturally responsible approach
	X. Ecological principles to guide decision making
	Y. Consideration of the impacts and consequences of travel in natural areas
	Z. Lead by example – increase awareness of the value of ethics based business and action.

Appendix 10 Participant information sheet used to make the participants aware of the research

Participant Information Sheet

Study Title: Local Perspectives of Ecotourism Development in Ruste Village area, Kurdistan Region of Iraq

Researcher: Sarook Sarky **Ethics number**: 5758

Please read this information carefully before deciding to take part in this research. If you are happy to participate you will be asked to sign a consent form.

What is the research about?

This is research forms part of a programme of PhD research at the University of Southampton. It is being conducted by Sarook Sarky, a student in Geography and Environment at Southampton and also an associate faculty member at the University of Duhok / Kurdistan Region of Iraq. My PhD is developing a framework for planning an ecotourism industry in Kurdistan and looking specifically at ways of involving local communities at prospective ecotourism destinations. This is because international evidence suggests that successful ecotourism projects have involved the local community in the planning process. The study is being funded by the Kurdistan Regional Government.

Why have I been chosen?

You have been chosen either (through previous research activity in Kurdistan) or because another member of your community has recommended that I contact you for my study, given your likely interest in any new ecotourism project that might take place in this area.

What will happen to me if I take part?

If you take part, you will be asked for your views concerning ecotourism in a brief interview on a one-to-one basis, as well as any suggestions you may have for other people that I could interview.

Are there any benefits in my taking part?

One benefit is that you are helping the researcher conducting his research. And the second and most important benefit goes for the tourism/ecotourism development in Kurdistan Region and specifically in your area.

Are there any risks involved?

None, at all. Any comments that you make will be reported anonymously and be treated in confidence.

Will my participation be confidential?

Your responses will be kept confidential following the interview. Any comments that you make will be reported in an anonymous way and the information collected will be kept on a password-protected

computer and the files will not be kept for more than 2 years beyond the end of the project. Names will be removed from records after they are complete.

What happens if I change my mind?

You have the right to withdraw at any time without your legal rights being affected.

What happens if something goes wrong?

You can contact Dr Martina Prude, Head of Research Governance (+442380 595058, mad4@soton.ac.uk).

Where can I get more information?

You can contact my any of my supervisors (Dr. Mary Edwards M.E.Edwards@soton.ac.uk or Dr. Jim Wright J.A.Wright@soton.ac.uk (+4423 8059 2217).

Appendix 11 Concent form

CONSENT FORM

Study title: Local Perspectives of Ecotourism Development in Ruste Village area, Kurdistan Region of Iraq

Researcher name: Sarook Sarky

Ethics reference: 5758

Please initial the boxes if you agree with the statements:

I have read and understood the information sheet (dated 22nd Oct 2012 /version 2.0) and have had the opportunity to ask questions about the study. ☐

I agree to take part in this research project and agree for my data to be ☐

I understand that my responses will be anonymised in reports of the research ☐

I understand my participation is voluntary and I may withdraw at any time ☐

Data Protection

I understand that information collected about me during my participation in this study will be stored on a password protected computer and that this information will only be used for the purpose of this study.

Name of participant (print name)……

Signature of participant……..

Date……

Appendix 12 Dimensions and guidelines of ecotourism development as identified by Lai and Nepal (2006, p. 1119)

Dimension 1: Conservation of Natural Resources

- Ecotourism development should contribute to the conservation of natural ecosystems (Honey, 1999; Wallace, 1996).
- Ecotourism development should encourage local communities to build the partnership for protected area conservation (Wight, 1994).
- Ecotourism development should provide education programs for local communities to learn and raise their awareness of their natural heritage (Honey, 1999; Wallace, 1996; Wight, 1994).

Dimension 2: Preservation of Cultural Tradition

- Ecotourism development should ensure that the economic benefits to local people should complement rather than overwhelm or replace traditional practices (Cooke, 1982; Wallace, 1996).
- Ecotourism development should provide education programs for local communities to learn and raise their awareness of their cultural heritage (Wight, 1994).

Dimension 3: Sustainable Community Development
P.-H. Lai, S.K. Nepal / Tourism Management 27 (2006) 1117–1129 1119

- Ecotourism development should be operated in an environmentally and socially responsible manner so that negative environmental and socio-cultural impacts could be minimized. (Cooke, 1982; Honey, 1999; Wallace, 1996; Wight, 1994).
- Ecotourism development should provide long-term environmental, socio-cultural, and economic benefits to the protected area as well as the nearby communities (Honey, 1999; Wight, 1994).

Dimension 4: Participation in Ecotourism Planning and Management

- The promotion of local attractions should be subject to residents' endorsement (Cooke, 1982; Wallace, 1996).
- Ecotourism development should promote communication and interaction between all the interested groups including local residents, tourists, protected area managers, government, NGOs, tour operators, and scientists, both before and during operations (Sproule & Suhandi, 1998; Wight, 1994).
- Ecotourism development should maximize local participation (Cooke, 1982; Sproule & Suhandi, 1998; Wallace, 1996).

Appendix 13 The questionnaire used to interview local people attitude and intention towards ecotourism development in Ruste and Girdik.

Local Perspectives on Ecotourism Development in Ruste village, Kurdistan Region of Iraq

Personal information

- Gender? Male Female
- Qualification? a. secondary school b. undergraduate c. postgraduate
- Age?a. 18 – 25 b. 26 – 40 c. 41-60 d. Over 61

Are you aware of any plans for ecotourism in Ruste area? [Prompt: if yes, what are those plans?

Prompt: How did you find out about them?]

Attitude statement: What is your feeling about the following 17 statements if ecotourism is to be implemented in Ruste? (Indicate your responses as: Agree, Neutral, or Disagree,)

1. **There** should be a maximum number of tourists who can undertake key activities in the national park (e.g. Shakhi Bokhaw, Serchawi Kchi Meer, Dergai Rash, Mamand Cave) at any one time.
2. There should restrictions (not completely open) on access to the national park for tourist activities, with tourists not allowed in all areas.
3. Trade and picking of rare plants from this area should be prohibited.
4. Trade and collecting of rare animals from this area should be prohibited.
5. There should be opportunities for local community to learn about the natural heritage of the area, e.g. flora and fauna.
6. **Traditional** tribal sites (e.g. *Biri Bakh Graveyard, Rasht, Gorbabila village, Pira Mat*) and events in the area should be preserved.
7. The spirit and content of the traditional ceremonies (e.g. Newruz celebration) should be protected against any change induced by tourism development.
8. Original economic activities (e.g. agriculture) should be replaced by tourism related jobs.
9. There should be opportunities for local community to learn about the cultural heritage of the area, e.g. history.
10. **Tourists** should be discouraged from littering, e.g. via signs and provision of bins
11. Waste generated by tourists should be reduced, e.g. when considering food products to be sold to tourists.
12. Groups of tourist should be allowed to visit the community, as this creates more local jobs and to understand local lifestyles and traditions (even though this might have some negative environmental and/or socio-cultural impacts).
13. Non-local tourism investment from outside the area should be encouraged as much as possible.
14. Steps should be taken to prevent negative tourism impacts (e.g. via protection forces, awareness campaigns and voluntary).
15. **Communication** between the local community and the local government should be increased as part of ecotourism planning.
16. The local community should work (participate) with other stakeholders (NGOs, tour operators, protected area managers, and scientists) in ecotourism planning.
17. Ecotourism-related employment opportunities for the local community should be encouraged

Intention statement: How likely are you to do the following if tourism is to be implemented in Ruste? (Indicate your responses as: Likely, Neutral, or Unlikely)

1. Do you visit the site / reserve now? If yes, I would stop visiting the site / reserve if many tourists were present.
2. I would help reserve managers to prevent illegal activities, e.g. by reporting people for tree-felling, hunting rare animals, etc.
3. If I saw somebody selling products made of rare plants, I would challenge them over this behaviour and try to educate them.
4. If I saw somebody selling products made of rare animals, I would challenge them over this behaviour and try to educate them.
5. If the government developed resources explaining the natural heritage of the area, e.g. national parks, natural reserves, leaflets, I would take time to read these materials or visit such sites (I would try to learn more about the natural heritage of the area).
6. I would participate in local festivals or traditional events or otherwise help maintain the traditional tribal sites in the area (this might mean mowing grass in the graveyard, repairing fencing, etc).
7. I would participate in traditional events/festivals even if tourists were present.
8. I would change my job (if it is a kind of traditional work such as agriculture) to a new and more profitable tourism related work (e.g. vendor).
9. If the government developed resources explaining the cultural heritage of the area, e.g. signs, visitor centres, leaflets, I would take time to read these materials or visit such sites (I would try to learn more about the cultural heritage of the area).
10. I would challenge people throwing litters and report it to the ranger.
11. Would you consider selling food / drink to tourists? If Yes: I would consider using reusable tableware (instead of disposable one), even it may require more labour and costs.
12. I would not mind to have a business (shop) in the most crowded area to have more customers (tourists).
13. If there was a shop or café in the village with an owner from outside the community, I would not mind using it or recommend visitors to use it.
14. If there is an environmental (ecotourism) awareness or voluntary campaign I would join.
15. I would rather work in a government ecotourism project than to have my own private (independent) work.
16. I would participate in ecotourism planning. Probe: (e.g. if a committee was formed to look at ecotourism issues, I would consider joining and representing the community). OR (I would attend meeting organised by other stakeholders regarding ecotourism planning).
17. Are you or your family members interested in new employment opportunities? If yes, I would consider working in a tourism-related business or encourage my family members to do so (e.g. hotel, restaurant or as a site guide).

Appendix 14 List of secondary data sources (from different governmental and private agencies contacted to obtain the data with dates contacted).

Agencies contacted for data	*Data*	*Dates contacted*
General Board of Tourism		April/2013
Directorate of Environment		April/2013
Directorate of Geological Surveys		April/2013
Ministry of Planning		April/2013
Iraqi Kurdistan Mine Action Agency	Landmine fields	April/2013
Warar Organisation		November/2012
Department of Planning		April/2013
Nature Iraq	KBAs	November/2012
General Board of statistics		April/2013
Directorate of Archaeology		November/2012

Appendix 15 Questionnaire sheet for GIS-based MCE

[Have you received the map of potential ecotourism destinations?]

1. Do you think the map highlights any areas as being suitable for ecotourism that you consider to be unsuitable? YES/NO/NOT SURE
   If yes – which ones?

   .....

2. Does the map omit any potential destinations that you would consider suitable for ecotourism development? YES/NO/ NOT SURE
   If Yes – which ones?

   .....

I am planning to map suitable ecotourism destinations based on the following input map layers:

Distance to [*Airports,* Neo-Assyrian rock-face relief sculptures (NArrs)*, Archaeology, Resorts, Rivers, Lakes, Key Biodiversity Areas (KBAs), and Landmines*]

3. Do you think the list of the above map layers we have used includes any that are irrelevant and not of any importance for ecotourism planning? YES/NO/NOT SURE
   If yes – which ones?

   .....

4. Are there any (important) measurable characteristics (i.e. ones for which data exist) of suitable ecotourism destinations that you consider important, but which do not feature on the list of map layers we have used? YES/NO/NOT SURE
   If yes – which characteristics and which data sets would you use to measure them?

   .....

5. How would you rate each map layer/characteristic in order of importance, excluding any you have suggested to be removed and including any you have suggested to be added in the question 3 and 4 above:

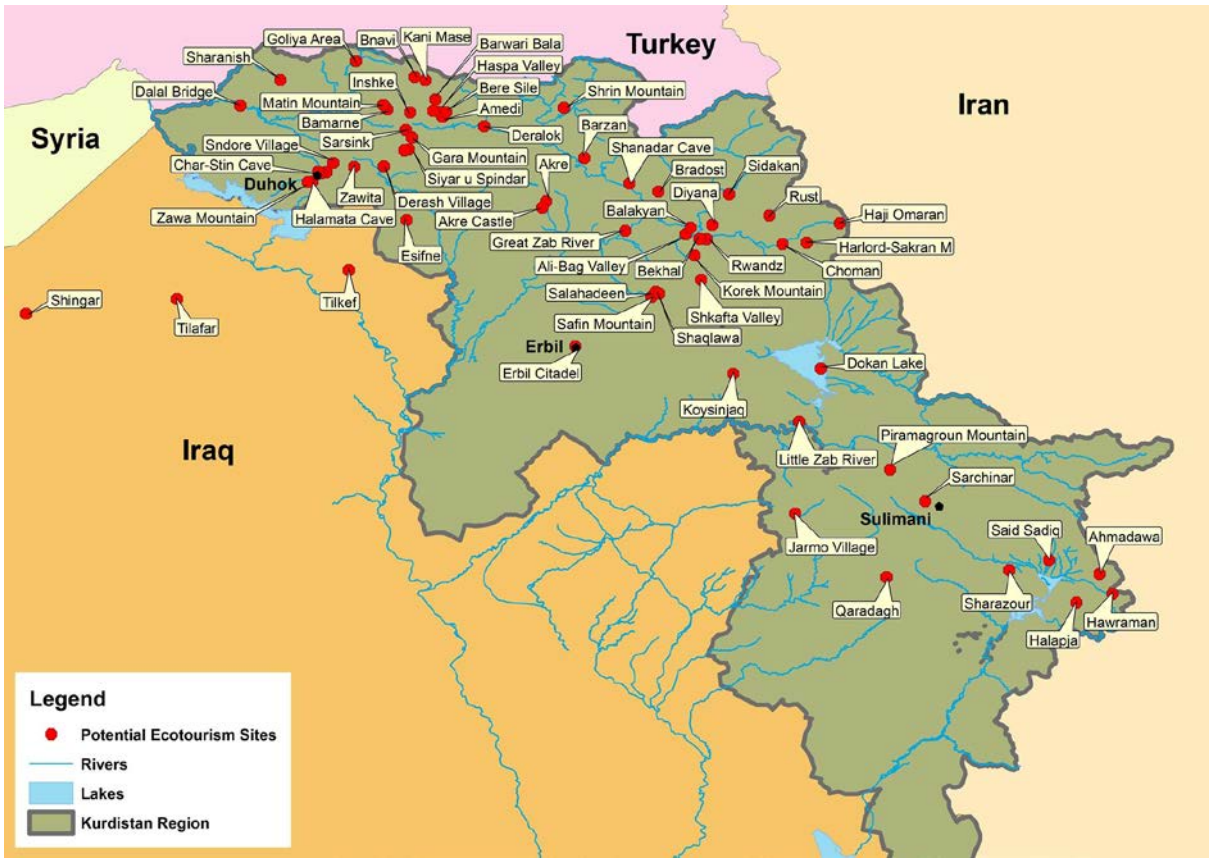
Map Layers (Characteristics)	*Importance* * (underlying map layers) Least important → Most important						
Distance to Airports	1	2	3	4	5	6	7
Distance to NArrs	1	2	3	4	5	6	7
Distance to Archaeology	1	2	3	4	5	6	7
Distance to Resorts	1	2	3	4	5	6	7
Distance to Rivers	1	2	3	4	5	6	7
Distance to Lakes	1	2	3	4	5	6	7
Distance to KBAs	1	2	3	4	5	6	7
Distance to Landmines	1	2	3	4	5	6	7
New layer	1	2	3	4	5	6	7
New layer	1	2	3	4	5	6	7
New layer	1	2	3	4	5	6	7
New layer	1	2	3	4	5	6	7

* **1**=No importance; **2**=Very low importance; **3**=Low importance; **4**=Moderate importance; **5**=Quite high importance; **6**=Very high importance; **7** = Overriding importance

6. Do you think there is a threshold at which sites become unsuitable for ecotourism?

Map Layers (Characteristics)	*Yes/No*	*If 'Yes': what is the threshold?*	
		Start	*End*
Distance to Airports			
Distance to NArrs			
Distance to Archaeology			
Distance to Resorts			
Distance to Rivers			
Distance to Lakes			
Distance to KBAs			
Distance to Landmines			
New layer			
New layer			
New layer			
New layer			

Appendix 16 Labelled potential ecotourism destinations map, proposed by participants in March 2012, used with the questionnaire (Appendix 15).



Appendix 17 Participant Information Sheet.

Participant Information Sheet

Study Title: Planning for the Development of Ecotourism Industry in the Kurdistan Region of Iraq – Stakeholders Perspectives

Researcher: Sarook Sarky **Ethics number**: 8848

Please read this information carefully before deciding to take part in this research. If you are happy to participate you will be asked to sign a consent form.

What is the research about?

This is research forms part of a programme of PhD research at the University of Southampton. It is being conducted by Sarook Sarky, a student in Geography and Environment at Southampton and also an associate faculty member at the University of Duhok / Kurdistan Region of Iraq. My PhD is developing a framework for planning an ecotourism industry in Kurdistan. For this work the MCE technique will be used to reclassify different GIS map layers, using the ArcMap computer software programme. This is to evaluate the potential ecotourism destinations, proposed by the research participants from last fieldwork, and probably some more potential destinations to be proposed in this survey, and the destinations obtained from different sources such as the General Board of Tourism, to show their suitability for ecotourism purposes on a graduated scale, i.e. from high to low suitability. This will help with underlying the different map layers (characteristics) used to evaluate the destinations.

The study is being funded by the Kurdistan Regional Government.

Why have I been chosen?

You are either:

- one of the potential stakeholders of the tourism industry in the Region which may include ecotourism in the future. You are chosen to do a follow-up interview for the consultation conducted (interview/workshop) in March 2012. (This group of participants will only answer the second part of questionnaire which includes the last 6 questions).
- Or you are a new participant, also considered an ecotourism stakeholder in the region, and asked to express your perspectives regarding the development of ecotourism industry in Kurdistan (this group of participants will all the questions which includes 11 questions plus 6 questions).

What will happen to me if I take part?

If you take part, you will be asked for your views concerning ecotourism in a brief interview on a one-to-one basis. You will be discussed about the findings and underlying assumption of an outcome map from the MCE (that includes the ecotourism destinations which were proposed in the last interview/workshop) as a follow up consultation. Also you may provide me with any suggestions for other people that I could interview. The interview may take about 30-40 minutes.

Are there any benefits in my taking part?

One benefit is that you are helping the researcher conducting his research. And the second and most important benefit goes for the tourism/ecotourism development in the Kurdistan Region.

Are there any risks involved?

None, at all. Any comments that you make will be reported anonymously and be treated in confidence.

Will my participation be confidential?

Your responses will be kept confidential following the interview. Any comments that you make will be reported in an anonymous way and the information collected will be kept on a password-protected computer and the files will not be kept for more than 2 years beyond the end of the project. Your name will be removed from records of the interview when the data analysis is completed.

What happens if I change my mind?

You have the right to withdraw at any time without your legal rights being affected.

What happens if something goes wrong?

You can contact Dr Martina Prude, Head of Research Governance (+442380 595058, mad4@soton.ac.uk).

Where can I get more information?

You can contact my any of my supervisors (Dr. Mary Edwards M.E.Edwards@soton.ac.uk or Dr. Jim Wright J.A.Wright@soton.ac.uk (+4423 8059 2217).

Appendix 18 Threats and Positive Qualities seen at KBA sites by Nature Iraq (Ararat et al., 2009), and the calculated Mass and converted Mass.

	Site Name	Negative qualities (Threats)							Positive qualities		Sum of		Mass (Index)	Mass + 3
		Oil or other Pollution	Agriculture	Removing of plant cover/ Grazing	Constructions & Roads	Garbage and/or Sewage	Hunting	Over fishing and/or electorfishing	Locals/officials willing to help in conservation efforts	Hunting/Fishing ban	Negative qualities (Threats)	Positive qualities		
1	Kalar		x	x			x				-3	0	**-3**	**0**
2	Sangaw Area										0	0	**0**	**3**
3	Maidan Area										0	0	**0**	**3**
4	Chamchamal						x				-1	0	**-1**	**2**
5	Darbandikhan Lake			x			x	x		x	-3	1	**-2**	**1**
6	Dukan Lake			x			x	x		x	-3	1	**-2**	**1**
7	Qara Dagh	**x**		x	x				x		-3	1	**-2**	**1**
8	De Lezha		**x**	x							-2	0	**-2**	**1**
9	Awesar		**x**	x	x						-3	0	**-3**	**0**
10	Ahmed Awa			x							-1	0	**-1**	**2**
11	Kuradawe		**x**	x	x						-3	0	**-3**	**0**
12	Penjween			x							-1	0	**-1**	**2**
13	Peramagroon		**x**								-1	0	**-1**	**2**
14	Homar Qawm & Shadal Va			x							-1	0	**-1**	**2**
15	Chami Razan		**x**	x							-2	0	**-2**	**1**
16	Parazan			x							-1	0	**-1**	**2**
17	Doli Plingian			x							-1	0	**-1**	**2**
18	Taq Taq		**x**				x		x	x	-2	0	**-2**	**1**
19	Barzan Area			x						x	-1	1	**0**	**3**
20	Altun Kopri Marsh			x		x	x				-3	0	**-3**	**0**
21	Bahraka					x					-1	0	**-1**	**2**
22	Doli Smaquli		**x**	x							-2	0	**-2**	**1**
23	Bakhma			x	x						-2	0	**-2**	**1**
24	Sakran		**x**								-1	0	**-1**	**2**
25	Halgurd Mountain		**x**	x							-2	0	**-2**	**1**
26	Sari Hassan Bag			x							-1	0	**-1**	**2**
27	Dure		**x**								-1	0	**-1**	**2**
28	Benavi		**x**	x							-2	0	**-2**	**1**
29	Garagu		**x**								-1	0	**-1**	**2**
30	Mangeesh		**x**	x							-2	0	**-2**	**1**
31	Mosul Lake			x				x		x	-2	1	**-1**	**2**
32	Fishkhaboor		**x**			x					-2	0	**-2**	**1**
33	Ser Amadia and Sulav			x							-1	0	**-1**	**2**
34	Gali Balinda			x	x						-2	0	**-2**	**1**
35	Gali Zanta & Garbeesh M		**x**	x							-2	0	**-2**	**2**

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