**Understanding plastic pollution impact on marine ecosystems in Southeast Asia**

This programme aims to bring together UK and Southeast Asian researchers to work collaboratively on:

* increasing understanding of both behaviour and impacts of plastics in marine ecosystems
* the risks to the essential services these ecosystems provide.

This programme will support collaborations between researchers in the UK, Singapore and the wider Southeast Asia region to increase understanding of the behaviour and impacts of plastics in marine ecosystems (including mangroves, coral reefs and beaches) and the risks to the essential services these ecosystems provide, in order to support the development of mitigation measures.

This programme is jointly supported by NERC and National Research Foundation, Singapore (NRF), a department within the Singapore Prime Minister’s Office. NRF sets the national direction for research and development (R&D) by developing policies, plans and strategies for research, innovation and enterprise. It also funds strategic initiatives and builds up R&D capabilities by nurturing research talent.

The UK funding for the programme comes from the Department of Business, Energy and Industrial Strategy (BEIS) through the [International Climate Finance](https://www.gov.uk/guidance/international-climate-finance) programme, a UK government commitment to support developing countries to respond to the challenges and opportunities of climate change.

Where appropriate, projects funded through this funding opportunity will be considered part of a joint UK-Singapore contribution to the Commonwealth Marine Plastics Research and Innovation Framework. The framework aims to provide a platform and overarching structure for bringing together governments, industry, researchers and practitioners from across the Commonwealth to work together to tackle this global issue.

This programme will address the following themes:

* modification and transformation
* hazard, risk and impact to the environment
* intervention, mitigation and adaptation.

Research supported through this programme will be co-designed and delivered in close collaboration with end-users in low-to-middle-income countries in Southeast Asia. This is to ensure that the outputs can be used by government, local authorities, businesses and local communities to make decisions about the management and mitigation of plastics in marine environments.

Plastics, and their derived products, have been found in the air that we breathe, in soils, throughout aquatic systems and biota, and have even been found in the most remote polar oceans and deepest abyssal trenches. While plastics have been found in almost all environments, we do not yet understand the impacts plastics have on ecosystems, and a key knowledge gap is the impact of plastics on marine ecosystems. Plastics are entering marine food webs but the effects they have on ecosystem function are not fully understood or quantified.

Compounding these concerns, is the distinct lack of knowledge over the sources, process dynamics, pathways and the dispersal of plastics in the marine environment. Understanding how plastics behave in the environment is at the heart of being able to assess the likely hazard and impact of plastics on marine ecosystems and marine ecosystem services, such as fish stocks and resilience to climate change and natural hazards.

The Southeast Asia region has among the highest levels of plastic pollution which is resulting in public concern about the impacts of this pollution on the health of the marine environment in the region.

The aim of this joint programme is to support the research needed to improve understanding of how plastics impact marine environments in Southeast Asia, such as mangroves, coral reefs and beaches, and the ecosystem services these habitats provide. This new understanding will be used to inform the development of strategies and approaches to reduce levels of plastic pollution in marine environments in Southeast Asia.