



COAST & FOREST

Integrated Coastal Management Programme

Challenge

The combination of climate change impacts and upstream development means that the Mekong Delta is now one of the most vulnerable deltas in the world. According to official studies, by 2100 39% of the Mekong Delta area may be lost to the sea due to rising sea levels caused by climate change. The coastal mangrove forests that help to protect the hinterlands from flooding and storms are disappearing. More than 194 kilometres of the Mekong Delta's coastline of Viet Nam's four southern seaboard provinces have been hit by major erosion of up to 30 metres per year. Waves along the



eastern and western coasts of the Mekong Delta can reach up to three metres in height, constituting a serious threat to the poorly protected hinterland. The intrusion of saltwater into groundwater is also becoming a major problem, particularly because it negatively affects soil fertility. Furthermore, drought, floods and extreme weather events threaten the future of the Mekong Delta and its ability to provide the essential ecosystem services that its resident communities depend on.

In response the Vietnamese government has launched an integrated coastal management strategy. However, while the problems along the coast are quickly worsening, putting in place the technical and financial capacity required to implement this strategy is a major challenge that will take time. For this reason ICMP is working

with the Vietnamese government on managing its coastal ecosystem in order to make it more resilient, protect the Mekong Delta and prepare the region for the impacts of climate change. Drawing on experiences gained from around 10 years working in the region, ICMP is focusing on the institutionalisation and scaling up of developed solutions.

Our Approach

Supporting the development of an integrated coastal protection plan

ICMP is supporting the Vietnamese authorities at the central and provincial levels to develop effective coastal protection strategies for tackling the challenges of coastal erosion and flooding. An Integrated Coastal Protection Plan (ICPP) will provide guidance on the planning of coastal protection measures for the seaboard provinces of the Mekong Delta. Since the problems in coastal areas are multi-sectoral and cross-provincial, the ICPP is seeking to harmonise the plans of all these provinces.

Supporting decision-making on coastal protection measures

ICMP has developed a set of decision support tools for measures to protect mangrove forests and coastal areas. The tools include guidance on sea-dyke design, breakwaters and breakwater fences (T-fences), coastal mapping techniques, mangrove plantation and mangrove forest rehabilitation, and other solutions that can help the provinces to stop erosion and improve how they protect their coasts.

Informing investments in coastal protection

Based on its experiences working in the coastal provinces, ICMP put together a general assessment of the 720-kilometres of coastline in the Mekong Delta. Dividing the coastline into 45 management sections, the assessment proposed measures for each section and indicated the urgency of each measure.

Supporting Vietnamese authorities through capacity building and policy improvement

Training on coastal spatial planning and coastal civil engineering has provided the provincial authorities with the knowledge and skills they need to plan in a multi-sectoral way and to effectively respond to the challenges arising along the Mekong Delta coast. ICMP assisted to develop a new decree on coastal forest management, protection and rehabilitation and advanced the technical guidelines on 11 different mangrove species which essentially increases the survival of mangrove plantations. In collaboration with the United Nations Environment Programme (UNEP), ICMP is working with the provinces to incorporate the national action plan in their provincial action plans, and is supporting the development of the legal framework and policy at the national level.

Impacts

- ICMP contributes to better protecting 720 kilometers of coastline of the Mekong Delta against extreme weather events and floods. This is expected to make more than 3.5 million people in coastal districts safer against impacts of climate change.
- ICMP developed feasibility studies which serve as a direct preparation for investments of 110 million EUR which are currently being prepared, especially in the area of coastal protection.
- The programme has successfully introduced T-shaped breakwater fences to Vietnam which in some sites stop erosion of up to 30 metres per year and in other sites restore up to 180 metres of land which had been lost to the sea. This new land consists of mud flats where mangroves and other plants can grow.
- Inter-provincial and cross-sectoral cooperation for the spatial planning and effective management of the region's coastal areas has been established.
- A co-management model for mangrove forests has been successfully introduced in Viet Nam and demonstrated the better protection of forest by active involvement of the local residents.
- ICMP support the development of a stronger national legal framework on coastal forest and improved the provincial capacity on mangrove monitoring and rehabilitation.

The Integrated Coastal Management Programme (ICMP) is a development programme funded by the governments of Australia, Germany and Viet Nam. Its objective is to support the Vietnamese authorities in preparing the coastal area of the Mekong Delta for a changing environment and to lay the foundations for sustainable growth. The programme works in six interlinked working areas: agriculture, aquaculture, coastal protection, forest, planning and budgeting, and water management.