



# Mangrove Destruction around Mahoma Island

## Issues:

- Collection of wood from mangroves by local people for construction
- Clearing of mangroves for shrimp farm
- Clearing of mangroves for developing tourism industry

## Introduction/Background Information:

- The local people have traditionally used wood from the mangroves for fuel and in the construction of their homes. This has historically been harvested at a relatively sustainable rate, however, as the island has become more developed, the rate of mangrove clearance for construction has increased.
- The local population have recently cleared a section of the mangrove forest for a small shrimp farm. This has been profitable and there is increasing pressure to extend the shrimp farm and thereby increase profits for the company and local workers.
- The mangrove forest and surrounding swamp is not seen as a good draw for tourism. The mud can be smelly at low tide and the forest makes access to the sea difficult where it borders the coast. Some of the key players in the tourist industry have been pushing for the clearance of the mangroves to improve the aesthetic appearance of the coast and allow for the creation of beaches on the Northern side of the island as well as the South
- The further loss of the mangrove forests will potentially have a range of consequences for Mahoma island. Among these are the loss of the protective buffer between land and the that shelters the island from storms and tsunamis and protects against erosion.
- The loss of species and biodiversity is the other key effect. The mangroves are an extremely rich ecosystem, second only to the tropical rainforest in terms of biodiversity. They act as an important nursery for juvenile fish and sharks as well as providing shelter for shellfish, birds and rare species like dugongs. The loss of fish nurseries leads to a decline in fish species which has a knock-on effect on the fishing industry and tourism.

## Key Terms:

- **Mangrove** - a tree or shrub that grows in chiefly tropical coastal swamps that are flooded at high tide. Mangroves have numerous tangled roots above ground and form dense thickets. Also refers to the tidal swamp that is dominated by mangroves and associated vegetation.
- **Biodiversity** - the variety of life in the world or in a particular habitat or ecosystem.
- **Nursery habitat** - a subset of all habitats where juveniles of a [species](#) occur, having a greater level of productivity per unit area than other juvenile habitats (Beck et al. 2001). Mangroves, salt marshes and seagrass are typical nursery habitats for a range of marine species.
- **Shrimp aquaculture** - the cultivation of shrimp (crustaceans of the groups Caridea or Dendrobranchiata) in a marine environment for human consumption, often by clearing mangroves to make pools.
- **Coastal erosion** - the process of the coastal rocks, beaches and soils eroding or being eroded by wind, water and waves

## Past Actions:

- The local government has tried to limit the deforestation of the mangroves for building materials and fuel by providing cheap construction materials from the mainland.
- The government allowed the creation of the shrimp farm and is pushing for its expansion as it will create jobs for the local people and bring money into the local economy.
- It is recognised that tourism could also provide income to the island, and as such the nursery habitat of the mangroves should be protected to conserve fish stocks, but this is seen as a more long-term solution, whereas the money from shrimp farming can come in relatively quickly.
- The government is being courted by a big hotel chain who would like to build a hotel on the North West corner of the island and would like the mangrove swamp North of village B to be cleared to create a beach