



Federal Ministry  
for Economic Cooperation  
and Development



## Ranong Biosphere Reserve



The Ranong Biosphere Reserve (RBR) was created in 1997, as the fourth Man and Biosphere Reserve (MAB) to be established in Thailand, and the first Biosphere Reserve to include coastal habitats and mangroves. It covers about 30,000 hectares, of which 40% is marine habitat. Even prior to the declaration of Ranong as a Biosphere Reserve, the Ngao mangrove area was already assigned as a special experimental area to test sustainable use and management of mangrove ecosystems by

the National Research Council of Thailand. A mangrove forest area of 2,000 hectares was established in 1981 as the Mangrove Forest Research Center (MFRC) Ranong, by the Royal Forest Department (RFD). The RBR headquarters and management unit is located within the MFRC complex.

The RBR consists of a narrow coastal plain characterized by many waterways and fringing mangroves; it extends seawards towards seagrass beds at a depth of 10

meters. This represents the largest and comparatively the most undisturbed mangrove area in Thailand. It adjoins the Ka Poe Estuary which is recognized internationally as a RAMSAR site and Laem Son National Park, thus forming part of a large contiguous area of protected habitats along the north Andaman Sea coast.

The mangroves in Ranong form a diverse ecosystem of forest and tidal channels, supporting about 300 animal species and 54 plant species, including about 24 true mangrove species. Formerly managed by the Royal Forest Department, the mangroves now have conservation forest status under the jurisdiction of the Department of Marine and Coastal Resources (DMCR). The DMCR also manages the RBR and has been involved in rehabilitating the mangrove forest after many decades of destructive exploitation, mainly for charcoal production, tin-mining and shrimp farming.

In summary, the three main functions of a Biosphere Reserve under the UNESCO Man and the Biosphere Programme are:

1. To use Biosphere Reserves to conserve natural and cultural diversity.
2. To utilise Biosphere Reserves as models of land management and of new approaches to sustainable development.
3. To use Biosphere Reserves for research, monitoring, education and training.

There are about 4000 people living inside the Ranong Biosphere Reserve whose major sources of livelihood are fishing and aquaculture. The local communities have retained their rights to utilize mangroves in a sustainable manner without significantly disturbing the ecosystem. The management of the Ranong Biosphere Reserve is inclusive of community participation, but it is also recognized that more should be done to promote the RBR's development function to foster sustainable economic and human development.

