

## **INTEGRATED AND PARTICIPATORY STRATEGIES FOR CORAL REEF MANAGEMENT IN KOH TAO, GULF OF THAILAND**

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Koh Tao is one of the most popular snorkeling and SCUBA diving destinations for over past decade. It is located approximately 70 km from mainland of Surat Thani Province, southern Thailand. Degradation trends of coral reefs at Koh Tao were affected by natural and human factors. The severe coral bleaching in 1998, the first time in the Gulf of Thailand, resulted in mortality of several coral species in a large area. Major threats in Koh Tao's coral reefs are trampling on coral by tourists, waste water and solid waste discharged from boat, trawling, boat anchoring on coral reefs, sediment from coastal development, fish traps on coral reefs, collecting corals and reef organisms for souvenir, collecting ornamental fish and other animals from coral reefs, blasting and poisoning fishing. Several activities have been implemented by local communities, diving shops, Koh Tao Conservation Group (NGO), local schools, Royal Thai Navy, Department of Marine and Coastal Resources and academic institutions to conserve coral reefs. The implemented projects covered various aspects of coral reef management, such as raising public awareness on coral reef conservation, coral reef restoration, coral reef cleaning, enhancing giant clam stock, coral reef patrolling, ecological and socioeconomic monitoring programs including application of remote sensing and GIS database. As coral reefs in Koh Tao are not in the jurisdiction of marine national park, enforcement of laws and regulations is inefficient. Most of investors and resource users are not local people. Coordination and participation of all relevant stakeholders are urgently needed to integrate and systemize diving business for sustainable uses. Appropriate land use planning is very important for reduction of sediment and pollution to coral reefs. Waste water treatment systems should be installed and operated regularly. A good case study of coral reef management by a resort owner, Nang Yuan Island, could be a model for reef conservation in tourism areas.

