



Enhancing management effectiveness of environmental protected areas, Thailand



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ABSTRACT

In Thailand, Integrated Coastal Management (ICM) has been carried out since 1992, through Environmental Protected Areas (EPAs) that are used in coastal planning and management for most popular tourist coasts and islands. This paper examines the effectiveness of Phetchaburi (PB) and Prachuap Kirikhan (PK) EPAs. The study finds the processes and results are not as comprehensive and sustainable as wished. Considerable environmental degradation, i.e., coastal erosion, poor water quality and degraded natural resources were found widely along the EPAs' coasts. The implications of PB and PK EPAs within an ICM framework were analyzed. The study findings indicated the important issues to be resolved include: inefficient intersectoral and intergovernmental integration within and between the multi-governments, weak commitments to financial and human resources, weak leadership and law enforcement capability and limited participatory and adaptive management through the stages of the ICM cycle. Moving forward requires specific actions, commitment, strong leadership and effective cooperation of key stakeholders. Continued building of environmental awareness on the impacts of environmental degradation to people and the economy is also needed. This ambitious project differs from most others in its coverage and the large number of communities and governance bodies that need to reach agreement. We suggest a number of recommendations that apply generally to developing countries wishing to conserve biological diversity and use resources sustainably on coasts with multi-stakeholders and uses.

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Abbreviations: BOD, Biological Oxygen Demand; CCM, Committee to Control and Monitor; CEA, Committee for Environmental Assessment; CPUE, Catch Per Unit Effort; DH, Department of Harbors; DIW, Department of Industrial Work; DMCR, Department for Marine and Coastal Resources; DPIM, Department of Primary Industries and Mines; ECC, Environmental Carrying Capacity; EIA, Environmental Impact Assessment; EPA, Environmental Protected Area; FCB, Faecal Coliform Bacteria; GESAMP, Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection.; ICM, Integrated Coastal Management; IEE, Initial Environmental Evaluation; NEF, National Environmental Fund; NEQA, National Environmental Quality Act 1992; NPO, National Park Office; ONEP, Office of Natural Resources and Environmental Policy and Planning; PB, Petchaburi; PEO, Provincial Environment Office; PFO, Provincial Fisheries Office; PMO, Provincial Mangrove Office; PPH, Provincial Public Health; PK, Prachuap Kirikhan; PWO, Public Work Office; REO, Regional Environment Office; SEA, Strategic Environmental Assessment.

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1. Introduction

Developing countries in Southeast Asia, Africa and South America have an enormous task in attempting to conserve marine environments and sustain exploited resources. These countries mostly have priorities in developing, reducing poverty and supplying food and commodities to their people.

The challenges of marine and coastal environmental sustainability are many and diverse in Thailand, where coastal and marine planning has been practiced since 1992. Focusing on coastal zoning, Thailand has a variety of systems in place, including ecological conservation for mangrove areas, coral reefs, fisheries, national marine parks, and environmental protected areas (EPAs).

Sustainable development of coastal and marine resources needs Integrated Coastal Management (ICM) as a dynamic process based on intersectoral, intergovernmental, land-sea and science-based management (GESAMP, 1996). Through long experience of ICM practices there are major factors that are likely to have considerable impact on ICM sustainability including: integration and

coordination efforts; participative management; relevant policies, legislation and institutional arrangements; long-term commitment and continuing monitoring and evaluation and adaptive processes (Olsen and Christie, 2000; Olsen, 2003; Christie et al., 2005; White et al., 2005a, 2006; Pollnac and Pomeroy, 2005; Eisma et al., 2005; Sekhar, 2005) The process of ICM sets out to avoid fragmented, single-sector management so that all activities function to collectively achieve agreed goals. Coastal zones are a contested space, characterized by diverse definitions, values, uses, biophysical conditions and impacts (Cicin-Sain and Knecht, 1998). The ICM concept was used in developing the EPAs for most tourist coasts and islands in Thailand.

Coastal areas of concern were declared as restricted zones in 1972. In 1996, prohibiting trawling and push netting using motorized boats closer than 3 km from the shore and establishing pollution control areas were initiated. This did nothing to reverse environment problems. It was found necessary to declare such areas as EPAs, to support measures for other legislation to better conserve natural resources and the environment. Phetchaburi (PB) and Prachuap Kirikhan (PK) were approved as EPAs by the Cabinet in 1996 and, through a long process, were enacted by Parliament in July 2004.

Early planning did not guarantee continuous financial support. Many ICM projects in other countries are funded by external funding sources such as: World Bank; Canadian International Development; US Agency for International Development; WWF-US (Pollnac and Pomeroy, 2005). In the EPAs of PB and PK the only funding is coming from the provincial governments and the Office of Natural Resources and Environmental Policy and Planning (ONEP) and there is no guarantee that it will continue.

Before PB and PK were declared EPAs, consultation took place during 1997–1999 led by ONEP, through provincial meetings containing mainly local government stakeholders. At that time, these stakeholders agreed to declare PB and PK as EPAs. Although the EPA approach at “step zero” (Chuenpagdee and Jentoft, 2007), for PB and PK provinces, was initiated by the government (ONEP), there was only partial engagement of the relevant stakeholders and a shortage of support and funding commitment. The Provincial Environment Office (PEO) was assigned to coordinate the work within and between multi-governance levels.

The EPAs of PB and PK were developed to avoid conflict and a proliferation of plans and regulations. These constraints were also reported in other EPAs (coasts and islands) in the Gulf of Thailand and the Andaman Sea (personnel observations) and in other countries (Gilman, 2002; Sekhar, 2005). Development of an appropriate institutional framework for the coordination of different sectors (Vallejo, 1993; Henocque and Denis, 2001; Chua, 2006) was needed.

First was the challenge of integrating within and between the multi-governance scales of PB and PK. Previously a sector-by-sector approach with large institutions dealing with separate activities (mangrove-salt farm–agriculture interactions, coastal constructions by the local and central governments, conflicts between coastal development projects and local government authorities, uncontrolled pollution by sub-districts, rehabilitation of mangroves and treatment and disposal of effluent) was found to be inefficient.

Based on ICM practices, another obstacle is seen in the country's legislative framework and regulatory enforcement. Laws used in the EPAs: the Forest Act 1941, the Fishery Act 1947, the National Parks Act 1961, the City and Town Planning Act 1975, the Factory Act 1992, the Public Health Act 1992, the Wildlife Conservation and Protection Act 1992, the NEQA 1992 Act, the Building Control Act 1989 and the Decentralization for Local Administrative Act 1999, provide a fairly extensive legal framework for environmental protection. Despite these laws, there is a total absence of an integrated

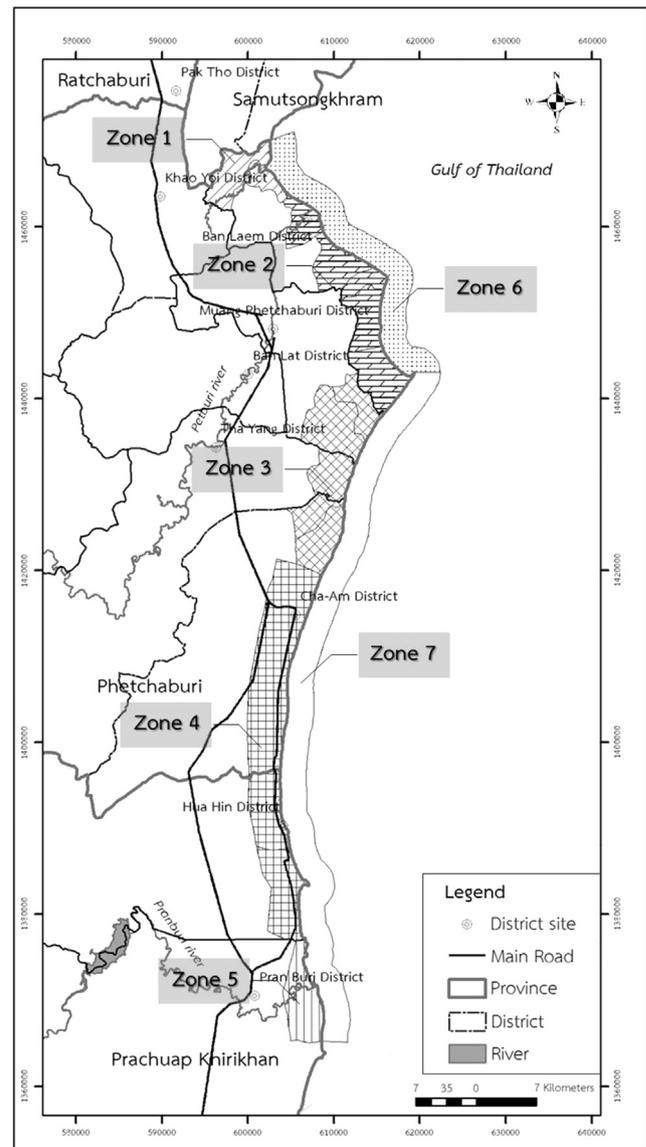


Fig. 1. Study area and boundaries of zones.

and coherent program and policy for integrated law enforcement in Thailand for a variety of reasons including inadequate staff and necessary facilities. This impediment was also reported for coastal management in the Philippines (Eisma et al., 2005; White et al., 2005a) and in Vietnam (Sekhar, 2005). From 2002 to now, Thailand (the DMCR with assistance from the Asian Development Bank and the World Conservation Union) has developed a draft Marine and Coastal Resources Management Act. This Act is designed to provide an integrated approach to coastal resources management through an area-function participation approach, identifying the rights of communities to manage their own coastal resources through a local organization or a co-management relationship with the local government. Unfortunately, this law has not yet been enacted by Parliament.

This study is a first attempt to assess the management effectiveness of PB and PK EPAs, using the following objectives:

- control and reduce activities that cause coastal erosion and loss;
- control and reduce activities that cause pollution along the coast;

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