Coastal resources in danger

Over the past 40 years, the country has undergone tremendous changes in its pursuit of economic growth, and at the local level there has been a movement away from subsistence livelihoods to an increased focus on monetary income. The main challenges the country now faces are the rapid degradation of marine and coastal resources and the multiple consequences of urbanization and industrial and tourism development. The unsustainable development models in use are placing a tremendous strain on the limited marine and coastal resources and the livelihoods of small-scale fishers, while policies and legislative, institutional and operational frameworks fail to support local communities in exercising their constitutional rights.

The lives and livelihoods of around 13 million Thai are directly dependent on the use of marine and coastal resources. Thailand’s waters cover an area of around 350,000 km² and the country has some 35,000 km² of coastal land. Important natural habitats and natural resources include beach forests, sea grass beds, minerals, ores, oil and natural gas. The country also has an estimated 12,000 km² of coral reefs with a biodiversity of at least 240 different species, and 1,964 km² of mangrove forests comprising 35 different species. Major industries dependent on marine and coastal resources include capture fishery, aquaculture fishery, tourism, transportation of produce and merchandise, heavy industry and power generation. Thailand is estimated to derive some THB 7,500 billion (around USD 250 million) from its marine and coastal resources each year.

Thailand’s coastal waters have traditionally been rich and productive, characterised by high biodiversity and large, healthy populations. These abundant resources have contributed to the development of a robust fisheries sector. Both capture fishery and aquaculture fishery are important to the country’s economy, with Thailand accounting for 3% of total aquaculture production globally in 2003. Its annual marine fish catch is valued at over THB 120 billion (around USD 4 billion).

Small-scale fishing

Thailand’s 2007 Constitution enshrines the rights of traditional or local communities to participate in the conservation, care, management and balanced and sustainable use of natural resources and the environment. However implementation and operation by Government agencies at the local level often fail to promote, support and facilitate local communities in particularly affected, and in many cases the approaches employed by Government agencies contradict those rights.

That is, for example, the situation in the case of small-scale fishers. Over 60,000 households from 4,000 villages are engaged in fishing, of which around 93% are small-scale fishers who account for around 9% of the country’s annual catch. They make use of traditional, handmade fishing boats and fishing gear, which effectively limit them to fishing only in waters within 3 to 5 km of the shore. This makes them especially vulnerable to local changes in the condition of marine and coastal resources.

Sustainability challenges

Marine animal populations in Thailand’s waters are in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand has been in a degraded state as a result of fishing beyond the sea’s carrying capacity. The Gulf of Thailand

1 Thailand Reform Office, Reforming the Structure of Marine and Coastal Resource Management (Bangkok: March 2011), pp. 1–2.
2 Ibid., p. 1
damage and destruction to the fishing gear of local small-scale fishers.¹³

When marine and coastal resources become degraded, small-scale fishing tends to be more severely affected than commercial fishing. Unlike commercial fishers, small-scale fishers are unable to venture further out into deep offshore waters. While in theory they might decide to travel daily to neighboring areas where resources are less severely degraded, in practice they have very meagre incomes, so additional fuel costs could threaten their livelihoods.

**Urbanization, industrial development and tourism**

Thailand’s coastal provinces have been transformed by urbanization, industrialization and tourism development, which have had a range of negative effects on both marine and coastal resources and the livelihoods of small-scale fishers. There is increased demand and competition for land, with the privatization of coastal land and nearshore waters restricting access. Moreover, environmental changes and pollution have affected the availability and condition of marine and coastal resources and have exacerbated existing issues such as coastal erosion.

Small-scale fishing communities must, through necessity, be located on the coastline, because they typically moor their boats on sandy beaches or in coastal inlets. Even relatively small developments that affect the navigation of nearshore waters, such as the construction of privately owned marinas, can have a profound impact on them because of the additional fuel, and therefore additional expenditure, required to navigate around such structures.

Mangrove forests have been threatened by encroachment for settlement and industry as well as by the use of timber for firewood, charcoal, furniture and construction. Thailand’s almost 10,400 hectares of sea grass beds have been negatively affected by sediment arising from coastal construction, deforestation and agriculture, the release of waste water in coastal areas and the use of illegal fishing gear such as push-nets. Severe coastal erosion causes Thailand to lose 3 km² of land to the sea each year, at an estimated cost of THB 6 billion (around USD 200 million). Although coastal erosion is brought about by a combination of both natural and human influences, factors related to coastal development include activities that disrupt the natural accumulation of sediment, including dam construction, sand mining and dredging deep-water channels to facilitate marine transportation.¹⁰

The country’s coastal areas have been earmarked for the development of mass transportation systems and heavy industry under the Government’s Southern Seaboard Development Plan. There are 37 projects planned, including deep-water ports, oil rigs, fuel depots, fuel transportation pipelines, heavy industry and power plants. The plan has emphasized the development of heavy industry without considering alternative forms of development potentially more appropriate to the socioeconomic circumstances and cultural ecology of the targeted areas, the economies of which are founded on fishery, agriculture, tourism, education and minor industry.¹¹

Thailand has witnessed many examples of inappropriate and unsustainable tourism development, as well as tourism activities that directly affect marine and coastal resources such as ‘coral walks’, which involve walking directly on coral reefs. But for many small-scale fishing communities living in some of Thailand’s most important tourist areas, problems and conflicts relating to land and land rights are a much bigger issue. Conflicts have arisen between local communities and tourism operators who have been issued title deeds, or who have encroached on land without any right of ownership, in areas that overlap with community terrestrial forests, community mangrove forests, community settlements and public roads.¹²

Changing global, national and local socioeconomic contexts are placing increasing strains on limited marine and coastal resources. Over the past 40 years, Thailand has undergone tremendous changes in its pursuit of national-level economic growth, while at the local level rapidly changing expectations regarding standards of living and quality of life have moved away from subsistence livelihoods to an increased focus on monetary income. Despite great advances generally at the policy level, small-scale fishers still have no formal, established identity within existing policy and legislative frameworks, meaning that there is frequently a failure to identify and address the issues that affect their livelihoods and well-being.

**New policies, but the same old practices**

There is a significant gap between national level policies and legislation and implementation at the local level. Promising changes in policy direction¹⁴ fail to bring about tangible, widespread and lasting change at the local level because the intervening legislation, bureaucracy and administration are resistant. There is also lack of coordination, cooperation and integration between the various organizations and agencies related either directly or indirectly to the management of marine and coastal resources, which leads to at best inefficient and incoherent, and at worst conflicting and counterproductive implementation and operation at the local level. The lack of coherence between the approaches and practices of the diverse organizations and agencies highlights the need to rationalize the overlaid complex legislative framework applicable to the management of natural resources and the environment.

In many cases legislation has not been updated to reflect positive policy changes at the national level. In other cases existing legislation, that could potentially be beneficial to marine and coastal resources as well as to small-scale fishers, fails because enforcement is either poor, and so individuals are able to flout the law, or else it is arbitrary, with different standards being applied in different circumstances. Specific issues include legal loopholes that allow offenders to escape prosecution, penalties too lenient to act as useful deterrents, and insufficient resources or bureaucratic hindrances that prevent regular, comprehensive patrols from being carried out.¹⁵

**Conclusion**

Unsustainable development practices are having a negative impact on marine and coastal resources and the livelihoods of small-scale fishers. Although changing socioeconomic contexts at the global, national and local levels are certainly placing increasing strain on the limited marine and coastal resources, a range of other underlying issues are also to blame, all related to policy, legislative, institutional and operational frameworks that fail to support local communities in exercising their constitutional rights and also fail to control and suppress illegal, inappropriate and unsustainable practices.

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¹¹ Ibid., p. 6.

¹² Ibid., pp. 5–6.

¹³ For example the policy to control the number of fishing vessels. See <www.fao.org/DDREP/005/AC790E/AC790E02.htm>.


¹⁵ Prasertcharoensuk and Shott, op. cit.