

SOCIOECONOMIC CONDITIONS ALONG THE WORLD'S TROPICAL COASTS: 2008



The world's tropical coasts are home to over two billion people, many of whom live in poverty and depend on coastal resources such as coral reef fish for their livelihood, sustenance, and cultural traditions. A new report, *Socioeconomic Conditions along the World's Tropical Coasts: 2008*, synthesizes data from individual socioeconomic assessments to quantify and qualify regional and global dependence on coral reef resources, perceptions of resource conditions, threats to marine and coastal resources, and support for marine management strategies such as marine protected areas.

Data are included from 49 studies, representing close to 14,000 household surveys conducted in hundreds of communities in 27 countries. This information provides evidence of the need to conserve global coral reef resources to ensure food security and contribute to poverty alleviation.

Most of the data in the report comes from the Global Socioeconomic Monitoring Initiative (SocMon), which facilitates community-based socioeconomic monitoring in six regions worldwide: Insular Caribbean; Central America; Southeast Asia; Western Indian Ocean; Pacific Islands; and South Asia. In some regions, initiatives other than SocMon have provided the bulk of the socioeconomic monitoring data, such as the Locally Managed Marine Areas (LMMA) network which operates throughout the Pacific and in parts of Southeast Asia. The LMMA network has conducted full socioeconomic monitoring at 49 of their 342 sites. *Socioeconomic Conditions along the World's Tropical Coasts: 2008* represents the first regional and global synthesis of SocMon data.

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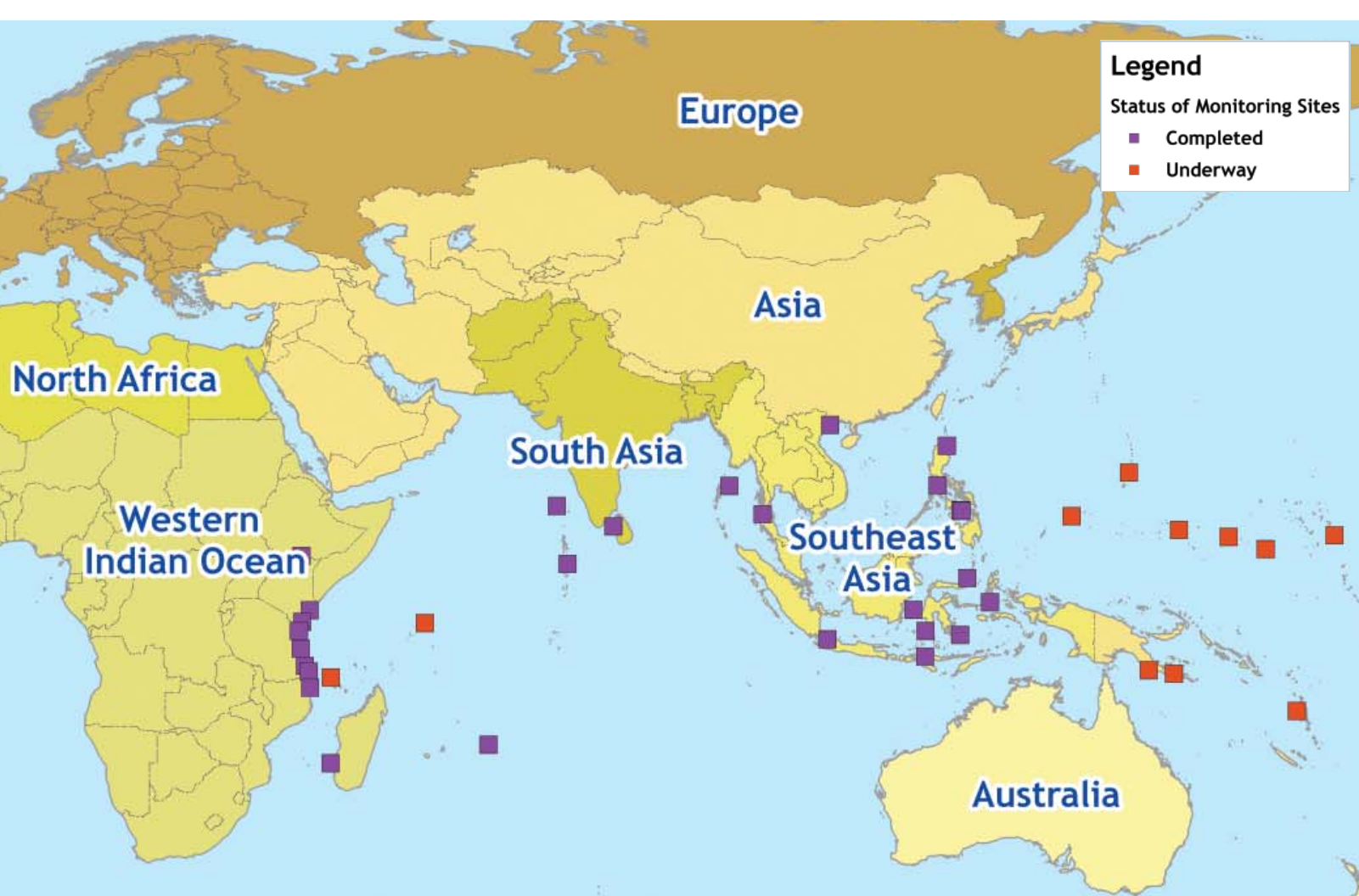
Much of the information in this report comes from the Global Socioeconomic Monitoring Initiative (SocMon). Sites where SocMon assessments are completed or currently underway are shown in the above map.

Major regional conclusions from this report include:

In the Caribbean, communities are significantly dependent on fishing; however, SocMon data indicate that tourism is rapidly changing local communities. Tourism is heavily dependent on healthy coral reefs, and is replacing fishing as the most important source of income for many communities and is seen as a viable alternative livelihood to fishing. Most communities welcome tourism development for revenue generation; however, many communities are also expressing concern over the negative impacts of tourism on their way of life.

In Central America, as with the Caribbean region, tourism is surpassing fishing as the main livelihood of many coastal communities. Based on SocMon data from 16 sites, reef-related dependence on average exceeds 50% of households in the coastal communities surveyed. Perceived threats to marine resources are very much linked to income-generating activities, including fishing, tourism development, agriculture and development of new industry and infrastructure. Support for and awareness of MPAs is generally low in Central America.

In the Pacific, LMMA data from 29 villages in Fiji indicate that most households in each village harvest marine resources on a small-scale for subsistence and to sell some excess. Commercial fishers comprise only a small portion of each village. The major threats to fishing grounds as noted from village management plans include over-fishing (resulting in the rare to non sighting of certain fish and invertebrates), solid waste washing into the sea or along the coast, sedimentation from logging and forest clearing, and nutrient loading from poor farming practices. Poaching in MPAs is also a problem, indicating the need for greater commitment to and logistics for the enforcement of MPA regulations.



In South Asia, SocMon Guidelines were recently published in October 2008; therefore, limited SocMon data is available and is based on demonstration sites. Data from these sites indicate a strong dependence on fishery resources, particularly as a source of protein for coastal households living below the national poverty line. SocMon data has been used most often to support development of new community-based MPAs and to reduce tourist impacts on fragile coastal areas. To date, SocMon assessments have been undertaken by local NGOs; a stronger partnership between government and NGOs is recommended to ensure use of SocMon data for future sites.

In Southeast Asia, more than half of the local communities surveyed are heavily dependent on fishing as their primary source of income, underscoring the need for healthy coral reefs and associated fisheries. Destructive fishing methods such as cyanide and dynamite fishing are perceived as the most prevalent threats to the health of coral reefs and fisheries in the region. This perception indicates that efforts to eradicate these destructive fishing methods, shown to be effective in some regions based on anecdotal evidence, should be increased to ensure food security and sustainable livelihoods for all coral reef dependent communities.

In the Western Indian Ocean, SocMon data indicate a strong dependence on fishing by coastal communities. This dependence is particularly high for remote sites with limited access to infrastructure. Overall, evidence from the sites indicate that resource conditions are worsening in the Western Indian Ocean region, particularly with respect to fishery resources. The most commonly perceived threat to coastal and fishery resources in the Western Indian Ocean is illegal fishing, such as poaching in MPAs, and lack of enforcement. For sites with MPAs, satisfaction with MPAs is generally much lower than in other regions and MPAs are not perceived to have improved fishery resources, which may be due to a lack of compliance with and enforcement of MPA regulations, limiting the effectiveness of MPAs in sustaining fishery resources.

Aggregation of data at the global level from 14,000 household surveys indicate that:

- Socioeconomic data collected emphasizes the importance of healthy coral reefs for communities living along the world's tropical coasts.
- Reliance on fishing for income and sustenance is very high in all regions, underscoring the importance of healthy coral reefs and marine ecosystems for food security.
- Perceived threats at the community level tend to focus on local ecosystem stressors, such as illegal fishing (e.g. poaching), lack of enforcement, and land-based sources of pollution.
- While threats are remarkably similar among all of the regions, Southeast Asia is the only region that has identified destructive fishing methods such as dynamite and cyanide fishing as a major threat, suggesting that this threat may be unique to Southeast Asia.
- Global stressors such as climate change are not yet perceived as major threats by local communities in any of the six regions studied.



Major conclusions from *Socioeconomic Conditions along the World's Tropical Coasts: 2008*

Region	Fishing dependence in coastal communities	Top three threats (as perceived by household survey respondents)	Use of socioeconomic data in management
Caribbean	High, but being replaced by tourism as mainstay	Illegal fishing (e.g. poaching) Overfishing Tourism	SocMon has been used for fisheries management planning
Central America	High, but being replaced by tourism as mainstay	Illegal fishing Pollution Overfishing	SocMon results have been used to assess socioeconomic impacts of climate change and extreme weather events
Pacific Islands	High, most households in study harvest marine resources for sustenance	Land based sources of pollution Solid waste Illegal fishing	LMMA results have resulted in action to reduce impacts of pollution and solid waste
South Asia	High: up to 90% rely on fish for protein, particularly poorer households	Overfishing Solid waste Coral and sand mining	SocMon results have been used to help establish community-based MPAs
Southeast Asia	High: average of 55% of each community in studies fish for living	Destructive fishing (e.g. cyanide or dynamite fishing) Solid waste Commercial fishing	SocMon results have been used to help establish municipal MPAs
Western Indian Ocean	High: 30-40% of average communities in studies fish for living; up to 80% for remote sites	Illegal fishing Lack of enforcement Pollution/poor waste management	SocMon results have been used to establish alternative livelihood programs

This information provides evidence of the need to conserve global coral reef resources to ensure food security and contribute to poverty alleviation in the face of global-scale crises including climate change and reduced foreign aid resulting from the global financial crisis. These global stressors will undoubtedly exacerbate local stressors and will further threaten coastal livelihoods.