The Problem: Population density and economic activity in coastal zones

About 40% of the world’s current population of 7 billion lives within 100 km. of a coastline.\(^1\) This percentage represents approximately 2.8 billion people. In the case of Mexico, about 14% of its population inhabits the coastal states of the Mexican Pacific, most in small and medium-sized communities.\(^2\) As population density and economic activity intensify in coastal zones, pressures on coastal ecosystems increase as well. Tourism is one of the major driving forces behind land use, habitat conversion, loss of biodiversity, and changes in livelihoods in coastal areas. The traditional aquaculture livelihoods of small-scale fishers and shrimp farmers are particularly vulnerable to the changes brought by tourism, especially in indigenous populations and communities (ejidatarios in Mexico).

Negative Examples:

- The United Nations Environment Program cites three main negative impacts from large scale tourism development: Depletion of Natural Resources, Pollution, and Physical Impacts – all of which threaten shrimp and fish and the people who depend on them. When large scale tourism infrastructure is built near the shore, it can destroy critical habitat when it is cleared for new construction, and it can pollute like any other industry (air pollution, noise, solid waste and litter, sewage, oil and chemicals, even ‘visual’ pollution of scenic landscapes). These impacts have been felt in the Mexican fisheries of Quintana Roo, and in the United States in the Florida Keys. The Florida Natural History Museum has identified large scale tourism-related development as seriously damaging the industrial and recreational fishing industries there, which are the 4th most important to the local economy.\(^3\)

- In the Bahia de Banderas, Nayarit, Mexico, the pristine wetlands habitat, landscape and biotic bay functions have drastically changed as a result of poorly planned urban and tourism development. A 2010 environmental assessment revealed that tourism development, urbanization and other economic activities like illegal logging and hunting have degraded the biotic and ecological processes of the three main estuarine systems located in Bahia de Banderas (El Salado, Boca Negra – Boca de Tomates and El Quelele). Impacts include soil erosion, cloudy water, sewage discharge, and oils and agrochemical run-off in the water.\(^4\)

- In Guanacaste, Costa Rica, as conventional sun-and sand tourism emerged in the area, land values increased dramatically. Land speculators and tourism developers offered to buy land from local farmers and fishermen for prices that seemed tempting. Those who sold, however, received a fraction of the land’s value once international buyers entered the market. In several cases, once the initial windfall was spent, local residents became low-wage gardeners at hotels on land they used to own.\(^5\)

Positive examples

Although the Negative Examples are discouraging, it should be made clear that the arrival of tourism does not always spell disaster for fishing and shrimping communities.

- Sian Ka’an, located in Quintana Roo, is Mexico’s first Biosphere Reserve, and of the country’s largest protected areas. It is an assembly of ecosystems, consisting of lowland tropical forests, wetlands (marshes, flooded savannahs and mangrove forests), and coastal and marine habitats (lagoons, bays, and coral reefs). The not-for-profit organization Amigos de Sian Ka’an (ASK) mitigates the threat of increased tourism development along Quintana Roo’s southern coast by: establishing regulations for tourism development in the northern area of the reserve; restricting zoning in and around the reserve; tracking and managing development along the coast using a GIS mapping system; securing the legal
protection of over 2 million acres on the Caribbean coast; and gaining protected area status for the Arrecifes de Sian Ka’an, a coral reef system with an area of over 86,000 acres. Commercial overfishing has been reduced and sport fishermen now use catch-and-release methods.6

• The Cabo Pulmo National Park in Baja California Sur was established in 1995 to restore the area’s heavily overfished waters. The villagers who had lived there for generations and depended on fishing for their livelihoods at first protested the park’s creation, but they’ve benefitted as the park’s creation attracted lucrative tourism from nearby Los Cabos for SCUBA diving and snorkeling. In addition to running dive and boat tours, they now fish outside the park’s boundaries and are pleased to let everyone know that the catch is more plentiful and the fish are bigger. Scientists report that fish stocks have increased 4.6 fold since the park’s creation.

• At the Turneffe Atoll in Belize, the interests of commercial fishing and low-volume, high-value ecotourism are aligned, and are proving to be mutually beneficial. Both the fishing industry there and the eco-tourism/sport-fishing sector depend on a healthy environment, and their combined support has led to the Belizean government’s recent declaration of the Turneffe Atoll Marine Reserve. As a united force, they are keeping out large-scale destructive development, and protecting the natural resources on which they depend.7

• In Guanacaste, Costa Rica, PRETOMA, a non-profit organization, has been working with local fishermen and their families to join the tourism value chain. Training began as scientists hired fishermen to help with ocean data collection, and with the help of training programs, that service has morphed into wildlife tours for tourists. PRETOMA has now established a mission-driven tour company, Turtle Trax, which relies on former fishers as competent guides, and tourists as volunteers to monitor sea turtle populations.8

Moving forward

• Policymakers must be aware of the ways in which tourism can interact in both positive and negative ways with local fishing communities and shrimpers. To ensure the sustainability of traditional lifestyles, policymakers must empower communities through the real sharing of decision-making power. Communities must be able to exercise their rights to access, use and manage the natural resources that support them. The cases of Sian Ka’an, Cabo Pulmo, and Turneffe Attol are strong benchmarks of enabling management control processes over resources and institutions to enhance livelihoods and achieve sustainable resource use.

• A holistic coastal management scheme needs to be adopted. A comprehensive Integrated Coastal Zone Management (ICZM) plan integrating the Tourism Carrying Capacity Assessment (TCAA) framework can ensure multi-sectoral governance for the protection of all coastal resources, including land for agricultural production. Based on principles of equity, good governance, and the safeguarding of resources, the ICZM approach creates a constructive dialogue between the interests of authorities and multiple user-groups, and provides the basis for planning and developing effective environmental legislation within their jurisdictions. All Mediterranean countries are implementing this approach. The Protocol on ICZM signed in Madrid in 2008 constitutes the first ever-comprehensive framework for sustainable coastal tourism that can be adopted for different development scenarios for different types of coastal tourism developments.9
RESOURCES

2. Idem.
8. PRETOMA, personal communication with Andy Bystrom, Executive Director; http://turtle-trax.com/; www.pretoma.org