

Coastal Fisheries in the Pacific Islands



Synopsis of the issue

Coastal fishing operations in the Pacific are very distinct from offshore fishing. Coastal fisheries (also known as small scale or artisanal fisheries) are generally limited to near-shore waters and inland water bodies. These fisheries employ labor-intensive fishing technologies and are typically family-based operations that use small boats under 12 meters long. Throughout Asia and the Pacific, coastal fisheries are estimated to contribute at least 50 percent of total fisheries production (Asian Development Bank). *(For information see offshore fisheries fact sheet.)*

Some of the major coastal fish species collected for commercial and subsistence uses include surgeonfish, emperors, snappers, mullets, rabbitfish, and grouper. Invertebrates also play an important role in regional households and economies. For example, Trochus is a snail with a shell about the size of an orange that is used to make buttons. Sea cucumbers (Beche-de-mer) look like a soggy roll of paper towel and are exported to Asian markets for food. Other invertebrate fishery species include sea urchins, lobsters, crabs, octopus, oysters, giant clams, and corals.

Overfishing of coastal reefs is a major threat to the Pacific region's ocean environment. Over time, fishing will remove all of the largest fish from the coastal reef. Taking away these big fish eliminates the most successful fish in terms of reproductive contribution. Eventually this cycle will result in very small populations of small fish. In addition, fish eat and remove algae from the surface of the coral reef. Without the fish, the algae takes over, smothers and kills the coral, and as a result destroys the habitat necessary to support the fish and other organisms that depend on the coral reef.

Fishing techniques can also have a devastating impact on coastal fish habitat. In Indonesia and the Philippines it is common to use dynamite or "blast" fishing to make it easy to collect the dead fish on the surface, while at the same time destroying the entire reef habitat. Other collectors will use chemicals such as cyanide to stun fish to make them easy to collect.

Ciguatera is a type of food poisoning that affects humans and other animals after they have eaten fish that contain high levels of a poison called ciguatoxin. Throughout the Pacific there have been increased reports of people becoming ill after eating fish. The causes of ciguatera outbreaks are still unknown. There appears to be a pattern of increased ciguatera outbreaks after some type of disturbance. The disturbance can be a natural event such as a cyclone or increased water temperatures, or the disturbance can be caused by a human activity such as sediment runoff at a development site, input of fertilizers, sewage, or garbage.

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Coastal Fisheries Experts

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Gerald McCormack	Cook Islands Natural Heritage Project	Cook Islands
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Selected Links and Publications

Australian Institute of Marine Science (AIMS) Fisheries Research
<http://www.aims.gov.au/pages/search/search-fisheries.html>

FishBase <http://www.fishbase.org/home.htm> FishBase is a downloadable information system with key data on the biology of all fishes.

The World Fish Center <http://www.worldfishcenter.org>
The World Fish Center is dedicated to eradicating poverty and committed to food security for all. A newsroom provides updated news regarding fisheries.

Reef Base <http://www.reefbase.org/> The online information database of ICRI (International Coral Reef Initiative) targeted to reef managers, scientists and the general public. Contains facts, statistics, and GIS information on coral reefs, reef fish, and reef fisheries categorized by country.

The Secretariat of the Pacific Community (SPC) Marine Resources Division <http://www.spc.int/mrd/>
Contains information on reef, oceanic, and coastal fisheries management.

The Secretariat of the Pacific Community (SPC) Fisheries Address Book
http://www.spc.int/coastfish/News/Address_Book_2002//Address_book_2002.htm Contains 1,000 addresses covering 50 countries, maps of Exclusive Economic Zone (EEZ) areas, and population estimates.

Traffic Oceania. <http://www.traffic.org/25/network7.htm>. Contains information on Traffic's fisheries programs. Traffic is a wildlife trade monitoring organization.

United Nations Food and Agriculture Organization-Fisheries Information Center
<http://www.fao.org/fi/default.asp>

Western Pacific Regional Fishery Management Council <http://www.wpcouncil.org/>. Contains reports on fishery management around U.S. territories in the Western Pacific.