4.2. Coral Reef Ecosystems

The Western Pacific Council's 2001 Fishery Management Plan for Coral Reef Ecosystems of the Western Pacific Region is the first ever ecosystem-based plan for fisheries developed in the United States. It incorporates many of the principles and policies recommended by the National Marine Fisheries Service's Ecosystem Principles Advisory Panel. The goal of the FMP is to establish a management regime for the entire Western Pacific Region that will maintain sustainable coral reef fisheries while preventing adverse impacts to stocks, habitat, protected species or the ecosystem. To achieve this goal, the FMP implements several management measures, including (a) the designation of zoned Marine Protected Areas (MPAs) for coral; (b) permit and reporting requirements to fish in designated low-use MPAs (reporting of fisheries information in non-MPA areas will continue to be collected through locally administered monitoring systems), and if needed, a general permit program for all EEZ reef fisheries and; (c) a prohibition on non-selective/destructive fishing gears and conditions on the types and uses of allowable gears.

The central feature of the Coral Reef Ecosystems FMP is adaptive management, which recognizes the uncertainty, changing conditions and resilience associated with coral reef ecosystems. Pacific island management systems for coral reef ecosystems have allowed Pacific islanders to survive for millennia by coexisting with coral reef resources and are best viewed as adaptive responses that have evolved over time, not as mere traditions.

Coral reef habitat covers an estimated 6,120 sq. miles of the shallow ocean bottom around US Pacific Island areas served by the Council. Nearshore fisheries of the Western Pacific Region include a wide variety of reef and lagoon species and large and small pelagics fishes found within lagoons or near reef margins. A variety of methods are employed in coral reef fisheries including hand harvesting, hook-and-line, spears and a variety of nets and traps. The monitoring and regulation of nearshore fisheries is mainly the responsibility of State or territorial fisheries administration, although there are some 4,200 sq. miles of lightly fished coral reef habitat that lies within the federal waters of the Council's jurisdiction. Table 7 lists the 2002 volume of estimated domestic coral reef fish landings in the US Pacific islands by area.

Nearshore resources are caught for recreation and subsistence purposes and for commercial sales. Categorizing fishing activity into one of these different activities is extremely difficult in the Western Pacific Region, where people may have regular employment but increase their earnings by occasional sales of fish when recreational or subsistence catches are more than required. In the Pacific islands, nearly every person is a potential fisherman and every village is a potential landing site. Even in Hawaii, a significant volume of the recreational catch is sold to the public along the roadside. This is another essential difference between the Western Pacific Region and other US locations, where commercial and recreational fishermen are strongly polarized and the commercial fishing community actively discourages fish sales by recreational fishermen.

Table 7.
Estimated Western Pacific coral reef fish landings, 2002

Island Area	Landings (pounds)
American Samoa	19,750
Guam	177,030
Hawaii	866,860
Northern Marina Islands	179,090
TOTAL	**1,242,730**

Throughout the Western Pacific Region, fishery administrators at the State, territorial and commonwealth level are actively developing management strategies to minimize the potential for resource depletion and habitat degradation. The Territory of Guam recently established over 20% of its nearshore waters as no-take MPAs. The Territory of American Samoa has now banned the use of fishing with SCUBA, while the Commonwealth of the Northern Mariana Islands has banned the use of all types of lay gill nets. The State of Hawaii has increased the minimum size for many reef fish and is also developing new conditions for the use of lay gill nets. However, recent attempts to establish expanded MPAs were unsuccessful.

With the assistance of federal partners, local fisheries administrations are also increasing fisheries research and monitoring programs to evaluate the effectiveness of existing regulations and management decisions. Fisheries administrations in the Western Pacific Region possess some of the longest coral reef fisheries data sets and continue to improve the collection of fisheries information, including catch and effort data from recreational and subsistence sectors. MPA effectiveness studies are now being conducted throughout the region, and ecosystem assessment programs have recently been initiated to monitor the long-term health of coral reefs and reef associated communities. Collectively, these new programs aim to evaluate the effectiveness of existing fisheries management measures and provide scientific data to support and establish new management initiatives.

4.3. Crustacean Fisheries

Lobster was a traditional source of food for Native Hawaiians and was sometimes used in early religious ceremonies. After the arrival of Europeans in Hawaii, the lobster fishery became the most productive of Hawaii's commercial shellfish fisheries. The commercial lobster catch in 1901 was reported to be 131,200 lbs. The majority of catch at that time was probably composed of the green spiny lobster (*Panulirus penicillatus*), a nearshore species.