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## Information Paper 8

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### Country Statement – American Samoa



**Secretariat Of Pacific Community**

**Heads of Fisheries  
Meeting**

**August 1999**

**Country Statement**

**American Samoa**

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### **1. Pelagic Fisheries:**

The tuna and pelagic fisheries of American Samoa have historically been an important component of the traditional fishery. The fishery was first monitored in mid 1970s and has operated on a small-scale basis since then. Prior to 1985, only commercial landings were monitored. From October 1985 to present, data were collected through a creel survey that included subsistence and recreational fishing as well as commercial fishing. The catch is sorted by gear type. American Samoa is also a major base for the transshipment and processing of tuna taken by the high seas longline and purse-seine fleets. The Department of Marine and Wildlife Resources (DMWR) monitors the domestic pelagic fishery, through a program established in conjunction with the Western Pacific Fishery Information Network.

The 1998 estimated total landings for pelagic species by gear type is presented in Table 1.

**Table 1.** American Samoa estimated total landings for pelagic species by gear type in 1998.

<b>Species</b>	<b>longline(kgs)</b>	<b>trolling(kgs)</b>	<b>total(kgs)</b>
Skipjack	1,003	15,715	16,718
Albacore	285,264	15	285,279
Yellowfin	26,580	11,669	38,249
Bigeye	2,521	0	2,521
Mahimahi	15,048	1,869	16,917
Black marlin	842	0	842
Blue marlin	15,955	2,795	18,750
Wahoo	6,588	1,099	7,687
Dogtooth tuna	0	179	179
Sharks	4,258	846	5,104
Swordfish	183	0	183
Sailfish	3,318	0	3,318
Barracuda	2,655	1,508	4,163
Moonfish	1,295	0	1,295
Rainbow runner	13	224	237

The advent of the monofilament longline fishing technique in the latter half of 1995 saw the beginning of a new fishery. The longline fishing targeting mainly for albacore started with 3 alia fishing vesssels, powered by 40 horse power outboard motors, a hand cranked mainline spool and no navigation equipment. Though basic in gear configuration and equipment, this new method proved to have increased the tuna landings from 21, 000kgs in 1994 to 137, 000kgs in 1995. The number of vessels increased from 3 to 50 in 1998.

In 1996, the local longline fishing boats are required by federal law to have longline fishing permits. One of the conditions for the permit is the requirement to fill in a log book for all fishing activities and catch for every trip. Observed data as reported in log books is presented in Table 2.

**Table 2.** Observed Log book catch data for the longline fishery of American Samoa since 1996. Catch is expressed in numbers.

<b>Species</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
Albacore	4028	13,103	20,093	1650
Skipjack	6	428	2043	334
Yellowfin	645	947	1393	342
Bigeye	132	154	335	43
Billfish	116	327	313	94
Mahimahi	227	847	919	78
Wahoo	82	348	1087	95
Sharks	65	106	412	66

**Management:**

The recent ammendments to the Magnuson-Stevens Fishery Act has given the Territory authority to enter into access fishing agreements with foreign fishing countries. Instead of the Federal government having full control on the EEZ management regime and the access agreement process, American Samoa is now able to participate fully in such negotiations and benefits from access fees and penalties from illegal fishing.

The Territory is also negotiating with the Federal government for a 50 mile exclusive zone within the EEZ allocated for the local fleet only. This measure is being pursued for the interests of the local population who fear being swamped by the bigger boats from the mainland and other countries. This proposal is still in the process pending approval from the U.S. Department of Commerce.

## **2. Bottomfish Fisheries :**

During 1995, a total of 25 local boats landed an estimated 1,410kgs of bottomfish in American Samoa. The average annual landings between 1982 and 1986 were estimated at 44,546kgs. It decreases dramatically to 25,000kgs since 1987 due to a number of reasons. These include the loss of fulltime and more skilled fishers to the longline and troll fisheries, and the absence of favorable economic opportunities for the bottomfish fisheries.

During 1998, a total of 17 local boats landed an estimated 5,909kgs of bottomfish in the territory. Revenues for the domestic commercial fishery in the same year were estimated at \$34,000, with all the catch being sold locally.

**Table 3.** American Samoa estimated total bottomfish landings for 1998.

<b>Species</b>	<b>Weight(kgs)</b>
Longnose emperor	44
Emperor(misc)	392
Golden bream	27
Tomato grouper	20
Lunartail grouper	326
Blacktip grouper	22
Flagtail grouper	5
Groupers(misc)	150
Bluelined snapper	301
Kusakar snapper	37
Stone snapper	78
Onespot snapper	12
Yelloweye Opakapaka	24
Gindai	129
Gray jobfish	179
Onaga	1600
Ehu	706
Rufous snapper	1
Humpback snapper	264
Yellow opakapaka	170
Yellowtail snapper	13
Multiden snapper	9

The Department of Marine and Wildlife Resources is currently conducting a “Bottomfish Resources Assessment“ project. It is aimed at providing the necessary biological information and better understanding of the fisheries to allow the local authority to formulate management measures and plans to ensure these resources are harvested on a sustainable basis. A resource atlas of the bottomfish complexes of American Samoa will be produced by the end of this project. The project is designed to assess both the deepwater fish complex as well as the shallowwater fish complex.

### **New *Etelis* Species**

The DMWR in collaboration with Hawaii Institute of Marine Biology has strong genetic evidence to suggest that there is another species of *Etelis* snapper. This work is spear headed by DMWR after preliminary work on the basic biology of *Etelis carbunculus* revealed that there is a mix up in the identification of this species. Briefly, there are two size modes displayed by the current *E. carbunculus* and the theory proposed by Dan Su’a, our Chief Biologist is that the two modes represent two different species. So far, DNA, gonads histology and length frequencies analyses correlate strongly with this theory. There is still the need to do the morphometrics on the two fish before a conclusion is drawn on this theory. Publications emanating from this work are expected in the near future.

### **3. Inshore Fisheries.**

Inshore fisheries survey estimated the total catch has increased from 29,546kgs in 1994 to 45,000kgs in 1995. Total effort decreased by approximately 16% and CPUE rose accordingly. Estimated CPUE per gear type increased in 1995 from 1994 values for all but thrownets. Active gillnets have the highest CPUE (6.6kgs per gear.hour) and exceeded the previous high of 5.6kgs/gear.hr. in 1991.

Catch per meter square of reef flat at the six study areas has varied over the past five years, but remain essentially at similar levels except for the high catch of atule (*Selar crumenophthalmus*) at Utulei in 1991.

The proportion of resident coral reef fishes increased in the catch in 1995 from previous years. The total landings of invertebrates increased also, particularly in proportion. Migratory fishes decreased in total pounds and proportion of the catch in 1995. Migratory fishes made up 66% of the total catch in 1991, largely due to the migratory atule catch for that year, which contributed 56%(59,853kgs) of the total catch for 1991. In contrast, migratory species made up only 17% of the catch in 1992 and 1993. In 1995, more parrotfishes were seen during survey than surgeon fish for the first time in five years. In 1995 scarids increased an order of magnitude from 1994. Acanthurids still made up 22% of the catch, a large percentage, but parrot fish comprised 33% of the total catch in 1995. Most families ( eg. groupers, snappers, etc.) appear to fluctuate in occurrence in the

survey over the years. Octopus and sea urchins made up the majority of the catch of invertebrates for the previous five years. Most years octopus is around 50% of the invertebrates encountered in the survey. Sea urchins in general are also popular in the fishery, and are mostly taken by gleaners, though they were far higher in proportion(29%) in the catch in 1991 than in 1995(12%).

Since 1996, the Department of Marine and Wildlife Resources has changed its focus towards the study of the economically significance species(mulletts, parrotfishes and wrasses) in order to formulate management measures to ensure this fishery is harvested on a sustainable basis.

The parrotfish study has revealed that the parrotfish population of American Samoa is severely threatened by overfishing. The final report from this study can be obtained from DMWR. The mullet study identified more than 7 species of mullets in the territory. The mullet population is also threatened by overfishing. The final report from this study can also be obtained from the DMWR.

Based on the results from these studies and information obtained else where, DMWR is currently revising the territory's fishing regulations to include the banning of SCUBA both as a fishing gear and method. Minimum size limits as a management control is also introduced to include in the current revision of the fishing regulations.

#### **4. Village Survey and Community-based Fisheries Management**

The DMWR has already embarked on the village survey since June of 1997. This project involved interviews with the old fishers and current fishers regarding the various aspects of traditional fishing practices. Old fishers were asked about the past traditional fisheries management practices. They were also asked to compare current and past fishing practices, fish abundance and most importantly, the role of fishing in the traditional ways of life.

The next phase of the project is to implement the community-based fishery management. The approach will be similar to the Samoa fishery village project with slight modifications to include zonations of Marine Protected Areas and basic training for monitoring purposes.

## **5. Aquaculture.**

The giant clam hatchery has been producing thousands of baby clams (*T. derasa*, *T. squamosa*, *T. maxima*, *H. hippopus*.) lately and is very successful with the spawning of the named species. The great success at spawning and rearing juvenile clams during 1997-98 period produced over 350,000 baby clams which became ready for transfer to reef growout areas in this quarter.

Recently, three more demonstration farms have been set up in village areas with suitable reef habitat for clam farming in American Samoa. This brings to 46 the total number of test farms, which have been set up since 1995. Only 3 of these are still operational, and 2 have expanded to having more than 1000 clams.

The hatchery staff transferred more than 10,000 3 year old clams (*Tridacna derasa*) to the Nu'uuli nursery station in the beginning of 1999.

In June 1999, a shipment of 1000 1-year old *T. derasa* was exported to Samoa for reseeding purposes. It is likely that the demand for juvenile clams for reseeding purposes in Samoa will continue to stay high.

An Aquaculture Co-op for American Samoa was formed ten months ago to promote aquaculture in the Territory. The Co-op has more than 20 members who have interests ranging from tilapia farming, giant clam farming and harvesting of ornamental resources. There is one company that is exporting cultured clams and wild ornamental resources to the U.S. aquarium markets.

## **6. Infrastructure Strengthening**

The DMWR is in the process of establishing a new research facility at Fagaalu park. This site is 5 miles from the main office and will harbor a hatchery facility, wet lab, dry lab, instrument room, 8 race ways for growth validation studies, a conference and training room, a nursery and offices. This project is expected to complete by the end of 2000.