

Samoa

Employment

Gillett et al. (2001) state that: “Using the most recent estimates of numbers of local longliners and knowledge of the number of crew on various size categories of vessels (Watt, pers. com.), the number of people working on locally-based tuna longliners is estimated to be 455 people.” The tuna processors and exporters presently employ 55 Samoans in Apia. Alternatively, Hand (2001) approximates that 436 Samoans are involved in tuna catching/exporting. To both of these figures, employment in commercial non-tuna fishing must be added.

Fisheries Division officials estimate that about 50 people are employed in bottomfish fishing, 6 people in coral exports, and 12 people in night spearfishing with SCUBA. A total of 500–600 people therefore appear to be formally employed in the fishing sector in Samoa.

An indicator of the total amount of formal employment in Samoa is the 23,009 people who are remitting payments to the National Provident Fund in 1999. The above estimate of 500–600 jobs in fisheries, therefore, represents a substantial amount of the wage paying employment in the country.

Using a broader definition of fishing employment, the 1999 Agriculture census (Department of Statistics and Ministry of Agriculture 2000) reports that:

- One third of the total number of households in Samoa were engaged in some form of fishing during the week prior to the census (or an equivalent of 6,699 households engaged in fishing).
- The total number of people engaged in some form fishing during the week prior to the census was 10,142, of which 8,722 (86%) were males while 1,420 (14%) were females.
- 1% of the households had members who were employed in fishing.
- The disposal of the catch is as follows:
 - Seventy percent of the 6,699 fishing households did not sell any of the catch;

- Of the households that did sell some of their catch, about 30% sold half of their catch, 28% sold about one quarter, 23% sold about three quarters, and 19% sold all their catch.

From the above information, it can be inferred that about 9% of all fishing households in Samoa sell at least half of their catch. If this ratio applies equally to the total number of people engaged in fishing (10,142 people), then about 900 people could be considered commercially oriented fishers. Primarily subsistence fishers would number about 9,200.

Passfield (2001) gives the details of a recent village fisheries study. The study reports that:

- A nationwide household fisheries survey was undertaken in October and November, 2000 to collect subsistence fisheries data and to complete a profile on Samoan village fisheries. The survey covered 1,092 households in 66 villages, out of a total of 21,424 households in 324 villages in all of Samoa.
- Results were given accounting for all Samoan households, and showed that there are 11,700 fishers (82% male; 18% female) living in 8,377 fishing households. A "fisher" was defined as a person who participated in fishing during the period 2 weeks prior to the survey.

Volumes and Values of Fish Harvests

The available information on fishery production and value includes:

- On the basis of a recent survey, Passfield (2001) approximates that 7,169 mt are taken annually by village level fisheries: Of these, 2,876 mt are sold or given away, and 4,293 mt are for home consumption.
- To value the fishery products, Passfield (2001) used an average market price of ST6.29 per kg for both the marketed and non-marketed fishery products.
- Using the system of "farm gate" pricing for subsistence production recommended by SPC (Bains 1996), if the market price of fish is discounted by 20%, being an allowance for getting the

product to market, then the average price for subsistence production would be ST5.03 per kg.

- The total catch (tuna plus by-catch) of the alia catamaran longline fleet was estimated to be about 5,747 tons; 6,072 tons; 5,156 tons; and 5,895 tons in 1997, 1998, 1999 and 2000, respectively (Watt 2001; Sua and Watt 2001).
- Watt (2001) and Watt (pers. com., 2001) reckon the combined value of the 1999 tuna catch (local sales, cannery exports, air freight exports) to be about ST29,748,440.
- Gillett et al. (2001) indicate that, in 1999, 308 mt of tuna was caught by the US purse seine fleet in the Samoa zone.

Selectively using the above information and the knowledge of Samoa fisheries, a crude estimate of annual fisheries production and values for recent years is presented below:

Table A2.43: Estimated Annual Fisheries Production of Samoa, late 1990s

Fishing Sector	Volume (mt)	Value (ST)
Coastal Subsistence	4,293	21,594,000
Coastal Commercial ^a	3,086	19,900,000
Offshore Locally-based	5,156	29,748,440
Offshore Foreign-based	100	300,000
Total	12,635	71,542,440

mt = metric ton; ST = tala.

^a Includes 210 mt (worth T\$1,810,000) of commercial non-tuna exports and all non-commercial fish exports as per export section.

Fishery Exports and Imports

Official export statistics are compiled by Central Bank. Specialized studies undertaken by the Fisheries Division (Watt 2001), using technical insight and industry contacts, portray a different situation:

Table A2.44: Comparison of Samoa's Fisheries Exports from Various Sources, 1996–2000

Source Data	1996	1997	1998	1999	2000
Central Bank	1,180 tons	2,977 tons	4,408 tons	3,786 tons	3,947 tons
<i>All Fish</i>	ST2,287,000	ST12,327,000	ST25,507,000	ST32,605,000	ST24,741,000
Watt (2001)	2,092 tons	4,872 tons	5,072 tons	4,407 tons	4,505 tons
<i>Tuna only</i>	ST13,844,400	ST27,476,400	ST29,581,400	ST27,531,400	ST38,971,000
FAOSTAT database		1,789 tons			
<i>All Fish</i>	—	US\$4,633,000	—	—	—

ST = tala; US\$ = United States dollar.

From Table A2.44, the non-tuna fisheries exports must be added to the *tuna-only* estimates of Watt (2001). The Fisheries Division annual reports give information on this, but as different time periods are covered (the annual reports use the financial year), the extra amounts are not strictly additive. Commercial non-tuna exports and all non commercial fish exports (the export categories not covered by the Central Bank estimates above) of 275 tons worth ST2,230,000 were made in financial year 1998/99, and the 1999/00 exports of 210 tons were worth ST1,810,000.

The above information suggests a need for collaboration between the Central Bank and fisheries experts over fisheries exports as is done by the Treasury Department for calculating the fisheries contribution to GDP.

It also should be noted that the “fish exports” estimated by the Central Bank appear to be entirely finfish, which is somewhat narrower than the range of products produced by the fisheries sector.¹² Officials of the Treasury Department have stated that they are unaware of such non fish exports such as coral. An examination of CITES trade statistics¹³ shows that at least some giant clam and hard coral exports took place for several years. The 1998/99 Fisheries

¹² In addition, under Samoa law, “fish” is any aquatic animal.

¹³ Excel database containing exports listed on Appendices I and II of CITES for the years 1987-1998.

Division Annual Report shows that ST78,873 of “biorock” were exported in 1998/99.

Even if only the official Central Bank finfish exports are considered, this product is the most important export of the country. Unpublished Treasury Department information shows:

Table A2.45: Estimated Annual Value of Fisheries Exports of Samoa, 1996–2000 (ST)

Exports	1996	1997	1998	1999	2000
Fish Exports	2,287,000	12,327,000	25,507,000	32,605,000	24,741,000
All Domestic Exports	24,680,000	37,324,000	48,071,000	53,055,000	44,845,000
Fish Exports as % of					
All Exports	9.3	33.0	53.1	61.5	55.2

ST = tala.

Source: Unpublished, Treasury Department.

World Bank (2000) reports that growth of the Samoa economy in 1999 exceeded expectations, and a key contributor of growth was the export of tuna for canning.

As compared to fishery exports, information on fishery imports is more difficult to obtain.

Passfield (2001) reports that annual canned fish consumption in Samoa is 14.0 kg per capita and that all canned fish is imported in the country. This equates to a total annual import of 2,450 mt of canned fish for the 175,000 residents of Samoa.¹⁴ The only other significant source of fisheries imports are the fresh and frozen products which arrive by ship from Tokelau. In recent years, this has averaged 15 mt per year. Considering this information, the total amount of fishery imports is calculated to be about 2,465 mt per year.

The FAO statistics gives the following information:

¹⁴ Information on the landed and FOB values of this 2,450 mt of canned fish was not available, but the retail cost is ST4.44 per kg (calculated from ST2.00/450 g).

Table A2.46: FAO Statistics on Fisheries Exports and Imports of Samoa, 1997

	Exports (mt)	Exports (US\$)	Imports (mt)	Imports (US\$)
FAOSTAT database, 1997	1,789	4,633,000	106	460,000
FAO (2000b), average of triennium ending 1997	900	1,976,000	4,000	5,065,000

mt = metric ton; US\$ = United States dollar.

Access Fees

It is estimated that in 1999 Samoa received US\$188,616 in license fees. In addition, US\$111,000 was received from the US tuna treaty for project development (Fisheries Division 2000).

Levels of Marine Resource Consumption

Information from various sources on fisheries consumption in Samoa is highlighted in Table A2.47 below:

Table A2.47: Estimates of Fisheries Consumption in Samoa, Various Years

Source	Year for which estimate made	Estimate	Comments
Passfield (2001)	2000	Average per capita consumption of [local] seafood is 57.0 kg per annum, made up of 44.0 kg of fish, and 13.0 kg of invertebrates and seaweed. In addition, canned fish consumption per capita is 14.0 kg per annum; total (local plus imports) is 71.0 kg per capita per year.	Survey was based on respondents' recall of their fishing activities and seafood consumption patterns.

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Source	Year for which estimate made	Estimate	Comments
Preston (2000)	1995	46.3 kg per capita per year	Based on FAO production, import, and export statistics.
FAO (1993)	1991	Average annual fish consumption was estimated at 36.0 kg per capita in rural households and 19.0 kg per capita in urban households.	

Exchange Rates

Samoan tala (ST) to the US dollar (US\$) as per ADB average-of-period rate:

- 1995 – 2.4757
- 1996 – 2.4590
- 1997 – 2.5701
- 1998 – 2.9574
- 1999 – 3.0231
- 2000 – 3.2864

