

# Appendix 2: Country Specific Information on Fisheries-Related Employment, Fishery Production Levels, Exports and Imports of Fishery Products, Access Fees, and the Role of Fisheries in Nutrition

## Cook Islands

### *Employment*

In the 1996 census (Statistics Office 1998), the categories of (i) “Home duties” and (ii) “Employed population” are given.

For the “Home duties” category:

- 4,435 people (3,517 males, 918 females) were involved in subsistence fishing.
- The 4,435 represent about 22% of the population.

For the “Employed population” category:

- 401 people (357 males, 44 females) were employed as “skilled agriculture and fishery workers.”
- The 401 jobs represent about 7.7% of all employment in the country.

According to officials of the Ministry of Marine Resources, about 40% of the employment in the category “skilled agriculture and fishery workers” would be in the fisheries sector.

Anonymous (1999) indicates that 67% of households are engaged in subsistence fishing.

Anonymous (2000a) gives information on the number of fish-aggregating device (FAD) fishers on Rarotonga:

- The number of full-time FAD fishers (those that earn about 90% of their income from fishing) increased from 7 in 1980 to 20 in 1999.
- The number of part-time FAD fishers (those that fish once per week) increased from 7 in 1980 to 35 in 1999.

It is likely that the downsizing of the public service in the mid-1990s contributed to an increase in the number of people obtaining a livelihood from fisheries.

### *Volumes and Values of Fish Harvests*

Dalzell et al. (1996), using data sources from the late 1980s and early 1990s, estimate the following:

- Subsistence coastal fisheries production of 858 mt, worth US\$3,047,683.
- Commercial coastal fisheries production of 124 mt, worth US\$314,761.

Ministry of Marine Resources officials (Bertram, pers. com.) estimate the following production for 2000:

- Fresh fish exports: nil
- Pearls: NZ\$18,400,000
- Small-scale commercial fishing:
  - Food fish 80 mt, NZ\$650,000
  - Aquarium fish NZ\$252,000
  - Trochus NZ\$200,000
- Subsistence production: 795 mt

Ministry of Marine Resources (2001) estimates the value of the subsistence fisheries as NZ\$2 million annually.

Passfield (1997) estimates the value of the subsistence fishery of Tongareva as NZ\$500,000 and the export fishery as NZ\$53,000.

Mitchell (2000) gives the catch (tuna, marlin and others) of foreign fishing vessels in the Cook Islands as 688 mt and 295 mt in 1998 and 1999, respectively.

Gillett et al. (2001), using the SPC Catch and Effort Logsheet Database with adjustments, give the foreign tuna catch in the Cook Islands exclusive economic zone (EEZ) in 1999 as:

**Table A2.1: Estimated Foreign Tuna Catches in the Cook Islands EEZ, 1999**

<b>Fishing Nation</b>	<b>mt</b>
United States of America	197
Korea, Republic of	19
<b>Total</b>	<b>216</b>

EEZ = exclusive economic zone; mt = metric ton.  
Source: Gillett et al. (2001).

Anonymous (1998) indicates that during the four-year period 1994–1997, the total catch taken by locally-based longliners was 300 mt, or an annual average of 75 mt.

ADB (2001) states that only one local longliner was operating out of Rarotonga in 2000. In addition, it is stated that the limited amount of fish that is sold in the northern group islands commands around NZ\$2.50–NZ\$3.00 per kg, compared to about NZ\$6.00 per kg in Aitutaki and NZ\$10.00 per kg in Rarotonga.

In summary, by selectively using the above information and the knowledge of recent developments, a crude approximation of the Cook Islands annual fisheries production in the late 1990s is given below:

**Table A2.2: Estimated Annual Fisheries Production of Cook Islands, late 1990s**

<b>Fishing Sector</b>	<b>Volume (mt)</b>	<b>Value (NZ\$)</b>
Coastal Subsistence	795	2,200,000
Coastal Commercial (including aquarium fish and pearls)	80	19,500,000
Offshore Locally-based	75	750,000
Offshore Foreign-based	300	770,000
<b>Total</b>	<b>1,250</b>	<b>23,220,000</b>

mt = metric ton; NZ\$ = New Zealand dollar.

*Fisheries Exports and Imports*

Statistics Office (2000a) gives details on exports from the Cook Islands:

**Table A2.3: Estimated Annual Value of Fisheries Exports of Cook Islands, 1995–1999 (NZ\$)**

Export	1995	1996	1997	1998	1999
<b>Total Exports</b>	<b>6,950,000</b>	<b>4,581,000</b>	<b>4,270,000</b>	<b>6,011,000</b>	<b>6,739,000</b>
Live Fish	169,000	152,000	132,000	214,000	138,000
Fresh or Chilled Fish	1,067,000	250,000	0	0	2,000
Pearls	3,750,000	1,473,000	3,036,000	5,033,000	5,342,000
Pearl Shells	2,000	406,000	225,000	2,000	34,000
<b>Total Marine Exports</b>	<b>4,988,000</b>	<b>2,281,000</b>	<b>3,393,000</b>	<b>5,249,000</b>	<b>5,516,000</b>
<b>Marine Exports as % of Total Exports</b>	<b>71.8</b>	<b>49.8</b>	<b>79.5</b>	<b>87.3</b>	<b>81.9</b>

NZ\$ = New Zealand dollar.  
Source: Statistics Office (2000a).

With regard to the pearl exports, the following should be noted:

- Ministry of Marine Resources (2001) indicates that, due to under-reporting, pearl production is more realistically in the order of NZ\$10 million per year.
- ADB (2001) states that pearl production has expanded recently, though the extent of this expansion has been disguised by under-reporting of sales to evade tax and royalty payments.
- Ministry of Marine Resources officials (Bertram, pers. com.) estimated the value of pearl production in 2000 to be about NZ\$18.4 million, the vast majority of which would have been exported.

ADB (2001) comments on recent marine product exports:

- One company is licensed to catch and export aquarium fish. At present, it operates only on Rarotonga, employing five divers and exporting around 20,000 fish valued at NZ\$200,000 per year.

- Pearls represented 90% of total export earnings in 2000, and were more than double those of any year in the past decade. The pearl industry has thus become central to the economic prosperity of the nation, particularly in the north.
- At present, commercial trochus harvests are limited to Aitutaki and Rarotonga (with production of about 25 tons in 2000).

Statistics Office (2000a) gives the total imports of the Cook Islands as NZ\$77,196,000, of which “food and live animals” make up NZ\$18,739,000. The publication does not give specific information for seafood imports.

The Forum Fisheries Agency (FFA 1993) gives “weight and cost insurance freight (CIF) value of imported seafood” for 1990 and 1991. For each of those years, about 30 mt of seafood valued at about NZ\$300,000 was imported. This was about 0.36% of all imports. It should be noted that these values apparently omitted imported canned fish.

Preston (2000), citing the Food and Agriculture Organization of the United Nations (FAO) trade data, states that 195 mt of fishery products were imported in 1995.

### *Access Fees*

Ministry of Marine Resources (2001) indicates that, for the financial year ending June 2000, a total of NZ\$319,478 was received for fishing licenses.

ADB (2001) states that in 2000 there was a reduction in the licensing of distant water fishing vessels in the Cook Islands, with only four Korean longliners licensed in 1999 and none in 2000. Joint ventures with two New Zealand companies operated from 1994 to 1997, while the last French Polynesian longliners ceased fishing in 1998.

### *Levels of Marine Resource Consumption*

Anonymous (2000a) states that Cook Islanders consume, on average, 47.0 kg of seafood per person per year.

Passfield (1997) gives the annual per capita consumption of fish on Tongareva Island as 219.0 kg.

Preston (2000), using 1995 FAO data on production, imports, and exports, estimates the annual per capita fish consumption to be 63.2 kg.

Considering (i) the fisheries production table above which indicates about 950 mt of nonexported seafood production, and (ii) the 195 mt of seafood which FAO estimates as imported annually, the annual seafood consumption could be calculated to be about 71.0 kg for each of the 16,100 Cook Island residents. The tourist situation, however, complicates the situation, and the overseas visitors (in full-time resident equivalents) must be determined in order to estimate per capita seafood consumption accurately.

### *Exchange Rates*

New Zealand dollar (NZ\$) to the US dollar (US\$) as per ADB average-of-period rate:

1995	–	1.5239
1996	–	1.4549
1997	–	1.5124
1998	–	1.8683
1999	–	1.8896
2000	–	2.2012

