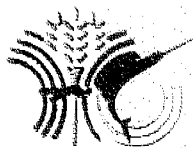
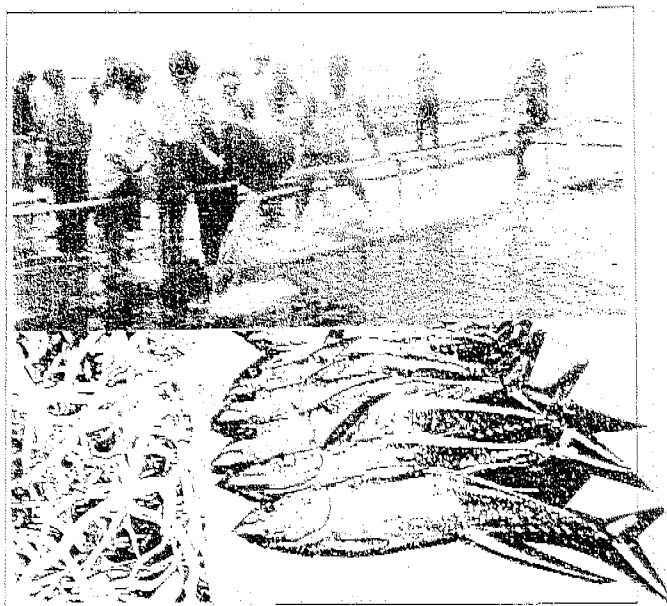


1999 PHILIPPINE FISHERIES PROFILE



Republic of the Philippines
Department of Agriculture
BUREAU OF FISHERIES AND AQUATIC RESOURCES



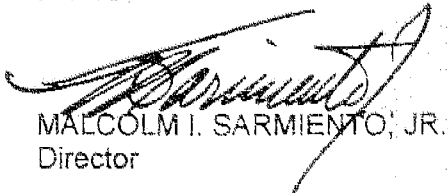
FOREWORD

The Bureau of Fisheries and Aquatic Resources (BFAR) publishes yearly the Philippine Fisheries Profile (PFP) based on the latest available data gathered from the different concerned agencies. This report aims to provide planners, decision-makers, researchers and other users with handy and concise information on Philippine fisheries.

The PFP focuses on the information/data on the Fisheries Contribution to the Philippine Economy, Employment, Fish Production (sector, sub-sector, region, major species), Export and Import Performance and Other Fishery Industry Information such as per capita food consumption, the Philippine contribution to total world production of fish and seaweeds, and the wholesale and retail prices of major commodities. Corresponding summary tables and graphs are also developed to further enhance the presentation of fisheries data and information.

We gratefully acknowledge the support and cooperation of the following agencies in making the data available to BFAR: Bureau of Agricultural Statistics (BAS), National Statistics Office (NSO), National Statistics and Coordination Board (NSCB), Food and Nutrition Research Institute (FNRI) and Food and Agricultural Organization (FAO).

It is hoped that this reference material will serve its purpose to the fullest.



MALCOLM I. SARMIENTO, JR.
Director

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H I G H L I G H T S

WORLD SCENARIO: Philippine Fisheries

The Philippines was ranked in World fisheries as follows:

1. Fourteenth (14th) among the fifty-two (52) top fish producing countries in 1997. It contributed 1.8 million metric tons of fish or 1.9% to the total world catch of 93.3 million metric tons (FAO Yearbook, 1997) ;
2. Eleventh (11th) in the world aquaculture production of fish and shellfish in 1997. It accounted for 0.330 million metric tons or 1.1% of the total world production of 28.808 million metric tons (FAO Aquaculture Production Statistics, 1988-1997); and
3. Third (3rd) biggest producer of seaweeds in 1997, contributing 0.627 million metric tons or 9.3% of the world seaweed production of 6.770 million metric tons (FAO Aquaculture Production Statistics, 1988-1997).

FISHERIES CONTRIBUTION TO THE PHILIPPINE ECONOMY (1999)

1. The fishing industry's contribution to the country's Gross Domestic Products (GDP) was 2.7% (79.4B) at current prices and 3.8% (35.3B) at constant prices. The country's GDP in 1999 was P2,996 billion at current prices and P917 billion at constant prices.
2. The industry also accounted for 15.0% (P79.4 B) and 19.2% (35.3 B) of the Gross Value Added (GVA) in Agriculture, Fishery and Forestry Sector at current and at constant prices respectively, the largest share next to agricultural crops.

EMPLOYMENT IN THE FISHING INDUSTRY

1. The fishing industry provided employment to about one million or five percent of the country's labor force. In aquaculture, about 26% (258,480) fishfarmers were engaged in different culture systems; municipal fisheries accounted for 68% (675,677) and commercial fisheries, 6% (56,715).

PERFORMANCE OF THE FISHING INDUSTRY

1. Fisheries production increased from 2.5 million metric tons valued at P52.18 billion in 1990 to 2.82 million metric tons valued at P89.80 billion in 1999. The growth rates attained for the period were 1.32% in volume and 6.22% in value.

2. Based on the records of the Bureau of Agricultural Statistics (BAS), total fish production of 2.82 million metric tons in 1999, registered a positive growth of 1.08% over the previous year's 2.79 million metric tons.

Municipal fisheries registered highest growth of 3.1%; commercial, a minimal gain of 0.9%; and aquaculture, a negative growth of almost 0.6%. However, the shares to total production were smallest from municipal fisheries, 32.6%; commercial fisheries, 33.7%; and aquaculture, 33.7%.

In terms of value, growth of 5.8% was realized from a total of P64.9 billion attained in 1998 to P89.8 billion in 1999. All sub-sectors exhibited positive growth with 6.2% in municipal, 8.4% in commercial, and 2.5% in aquaculture fisheries.

3. Among the major regional contributor to total fisheries production, Region IV (Southern Tagalog) remained as the largest producer with its 20.93% share. Autonomous Region for Muslim Mindanao (ARMM) accounted for the second highest with 16.36%, where seaweed was the major product. Western Mindanao (Region IX) accounted for 14.2% and was 3rd major contributor to fisheries.

4. The major species produced in aquaculture fisheries were the following: Seaweeds, 65.4%; Bangus, 18%; tilapia, 7.9%; shrimps/prawns, 3.8% and other species, 4.9%.

FISHERIES EXPORT AND IMPORT PERFORMANCE

1. The foreign trade performance of the fishery sector for 1999 recorded a trade surplus of \$372.7 million. Total fishery exports amounted to \$480.0 million while fishery imports reached only \$107.3 million.

2. Tuna has been the consistent fisheries top dollar earner since 1997. In 1999, it contributed 28.6% to total export, followed by shrimp/prawn, 26.6% and seaweed, 18.0%. These three products comprised 73.2% of total export of fish and fishery products.
3. Of the major fishery exports reported in 1998, nine remained in the top ten list for 1999 with the new entry of lobster (frozen and other than frozen) replacing abalone. Major fishery exports in terms of value were the following: tuna (\$137.4 M), shrimp/prawn (\$127.6 M), seaweeds (\$86.5 M), octopus (\$31.6 M), crab/crab fat (\$13.3 M), pearls (natural and cultured) (\$11.3 M), cuttlefish/squid (\$7.2 M), ornamental fish (\$6.5 M), lobster (\$5.7M) and lapu-lapu (\$4.6 M). These products amounted to \$431.7 million or a total share of 90% to total exports for 1999.
4. Major destinations of the Philippine fish and fishery products in descending order were the following: Japan, (31.8%); U S A, (21.5%); Hongkong, (8.1%); United Kingdom, (3.9%); Canada, (3.8%); Denmark, (2.7%); Germany, (2.6%); France, (2.5%); Singapore, (2.1%); Korea, (2.0%) and the rest or 19% was contributed by other countries.
5. Of the total \$107.3 M Imports of fish and fishery products in 1999, 84.2% were accounted for by two products, chilled frozen fish, \$63 M (58.7%) and fish meal, \$27.4 (25.5%).

Chilled/frozen fish was comprised of frozen tuna for canning and export, and sardines and mackerel for domestic consumption. Major suppliers of these commodities were, for chilled/frozen tuna : Indonesia (41%) ; Taiwan (16%) ; for sardines : Mauritania (34%), U S A (16%); and, for mackerel: Korea (33%), Taiwan (24%).

Fishmeal, a vital component of animal feeds, was mainly supplied by Peru (82%) and U S A (8%).

4. In terms of total fishery imports, the major sources in descending order were the following: Peru, (21.3%); Indonesia, (14.6%); Taiwan, (11.8%); Korea, (8.8%); U S A, (7.4%); China, Peoples Rep., (4.3%); Trust Territory of the Pacific Islands, (3.7%); New Zealand, (3.3%); Mauritania, (3.2%); Hongkong, (2.4%) and the rest or 19.2% was supplied by other countries.

I. FISHERY RESOURCES

**II. FISHERIES CONTRIBUTION
TO THE ECONOMY, 1999**

Philippine Marine Jurisdictional Boundaries

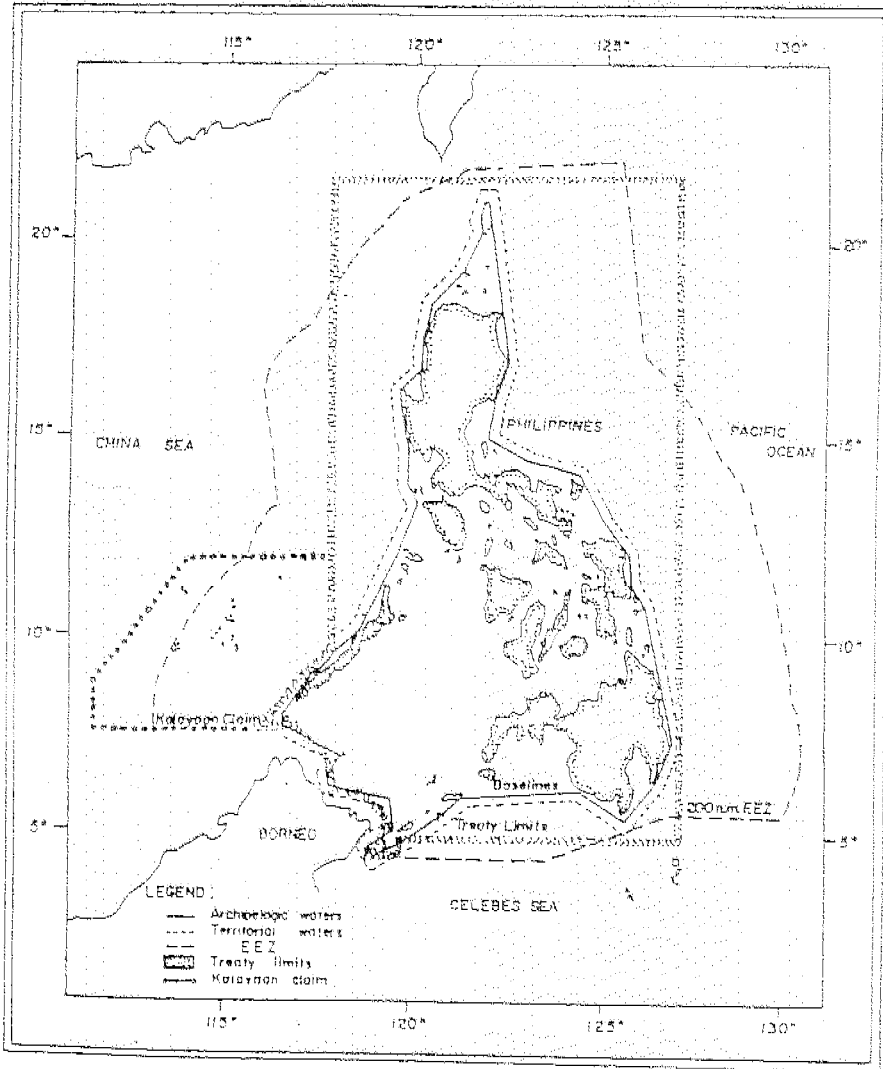


Figure 1

1999 PHILIPPINE FISHERIES PROFILE

I. FISHERY RESOURCES

A. Marine Resources

1. Total Territorial Water Area (including the EEZ)	2,200,000 sq. k
a. Coastal	266,000 sq. k
b. Oceanic	1,934,000 sq. k
2. Shelf Area (Depth 200 m)	184,600 sq. k
3. Coral Reef Area	27,000 sq. k
	(Within the 10-20 fathoms where reef fisheries occur)
4. Coastline (length)	17,460 km

B. Inland Resources

1. Swamplands	246,063 ha
a. Freshwater	106,328 ha
b. Brackishwater ^{1/}	139,735 ha
2. Existing Fishpond	253,854 ha
a. Freshwater	14,531 ha
b. Brackishwater ^{2/}	239,323 ha
3. Other Inland Resources	250,000 ha
a. Lakes	200,000 ha
b. Rivers	31,000 ha
c. Reservoirs	19,000 ha

II. FISHERIES CONTRIBUTION TO THE ECONOMY, 1999

A. Fisheries Contribution to Total GDP ^{3/}

1. At Current Prices 2.7%
2. At Constant Prices 3.8%

B. Fisheries Contribution to GVA in Agriculture, Fishery and Forestry by Industry Group ^{3/}

Industry Group	At Current Prices (P M)	% to Agricultural Sector	At Constant Prices (P M)	% to Agricultural Sector
1. Agricultural crops (Palay, corn, coconut, etc.)	317,258	60.1	96,282	52.5
2. Livestock	67,636	12.8	24,060	13.1
3. Poultry	39,534	7.5	19,395	10.6
4. Agricultural activities	22,511	4.3	7,641	4.2
5. Fishery	79,405	15.0	35,281	19.2
6. Forestry	1,813	0.3	748	0.4
TOTAL	528,157	100.0	183,407	100.0

C. Employment

1. Aquaculture	258,480 persons	^{4/}
2. Municipal	675,677 persons	^{5/}
3. Commercial	56,715 persons	^{4/}
TOTAL	990,872 persons	

D. Balance of Trade ^{5/}

	1999			1998		
	Quantity (MT)	FOB Value (P M)	FOB Value (\$ M)	Quantity (MT)	FOB Value (P M)	FOB Value (\$ M)
Fishery Exports	172,845	19,338	480.0	185,758	20,553	530.
Fishery Imports	255,066	4,399	107.3	165,989	3,288	83.
Trade Balance	(82,221)	14,939	372.7	19,769	17,265	446.

E. Total Fish Production, by Sector, 1999

Sector	Quantity (000 MT)	%	Value (P B)	%
1. Aquaculture	949	34.4	26.8	30.0
2. Municipal Fisheries	919	32.3	30.8	34.2
3. Commercial Fisheries	948	33.3	32.2	35.8
TOTAL	2,816	100.0	89.8	100.0

**F. Fish Production, by Sector and Region, 1999
(in MT)**

Region	Commercial	Municipal	Aquaculture	Total	% share to total
NCR	160,098	4,156	3,811	168,065	5.97
CAR	0	639	1,015	1,654	0.06
I	1,863	23,006	28,713	53,582	1.90
II	12,660	14,306	2,713	29,679	1.05
III	10,950	10,220	94,499	115,669	4.11
IV	145,143	261,889	182,449	589,481	20.93
V	22,364	70,526	18,391	111,281	3.95
VI	123,299	132,617	76,698	332,614	11.81
VII	62,547	45,320	19,949	127,816	4.54
VIII	30,688	36,927	4,219	71,834	2.55
IX	161,502	111,661	126,531	399,744	14.19
X	19,636	15,751	2,315	37,702	1.34
XI	142,644	48,637	16,291	207,572	7.37
XII	10,287	18,313	8,812	37,412	1.33
XIII	4,712	63,801	3,265	71,778	2.55
ARMM	40,361	61,012	359,274	460,647	16.36
Total	948,754	916,781	948,995	2,816,530	100.00

G. Fish Production, by Sector 1990-1999 ^{7/}

1. Volume of Fish Production (in MT)

Year	Aquaculture	Municipal	Commercial	Total
1999	948,995	918,781	948,754	2,816,530
1998	954,656 R	891,146	940,533	2,786,335 R
1997	957,390	942,466	884,651	2,766,507
1996	980,829	909,248	879,073	2,769,150
1995	919,810	972,043	893,232	2,785,085
1994	869,083	992,578	859,328	2,720,989
1993	793,620	1,013,969	824,356	2,631,945
1992	736,381	1,084,360	804,866	2,625,607
1991	692,401	1,146,765	759,815	2,598,981
1990	671,116	1,131,866	700,564	2,503,546

R - Revised

B. IMPORTS

1. Imports of Fish and Fishery Products By Kind, Quantity and Value, 1999

Commodity	Quantity (MT)	FOB Value	
		(000 P)	(000 \$)
Fresh/Frozen/Chilled	164,514	2,801,431	68,315
Flour, Meals & Pellets of Fish Crustaceans and Mollusks Unfit for Human Consumption	73,139	1,122,117	27,363
Canned	1,351	74,803	1,824
Salted, Dried, Smoked, etc.	11,977	195,587	4,770
Other Commodities	4,085	205,064	5,000
GRAND TOTAL	255,066	4,399,002	107,272

2. Value of Fish Production (in million pesos)

Year	Aquaculture	Municipal	Commercial	Total
1999	26,810	30,751	32,242	89,803
1998	26,161	28,966	29,737	84,864
1997	27,383	27,393	25,935	80,711
1996	33,206	25,373	24,555	83,134
1995	33,555	26,464	23,065	83,084
1994	35,003	24,475	20,714	80,192
1993	30,163	22,031	18,021	70,215
1992	25,986	22,656	16,801	65,443
1991	22,656	22,133	15,245	60,034
1990	20,466	19,300	12,411	52,177

H. Five Year Fish Production, Trend 1995-1999

Year	Quantity (M T)	% Increase/ (Decrease)	Value (000 P)	% Increase (Decrease)
1999	2,816,530	1.08	89,803,003	5.80
1998	2,786,335	0.72	84,864,572	5.16
1997	2,766,507	-0.09	80,710,968	-2.91
1996	2,769,150	-0.57	83,134,756	0.06
1995	2,785,085	2.36	83,084,128	3.61

TOTAL FISH PRODUCTION, BY SECTOR, 1999

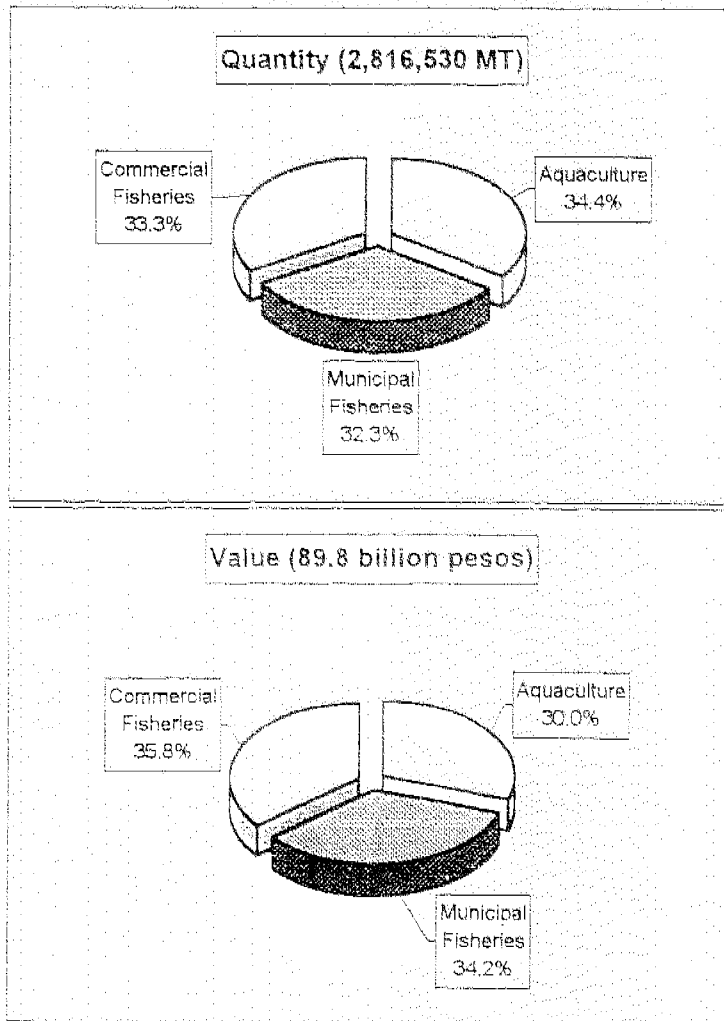
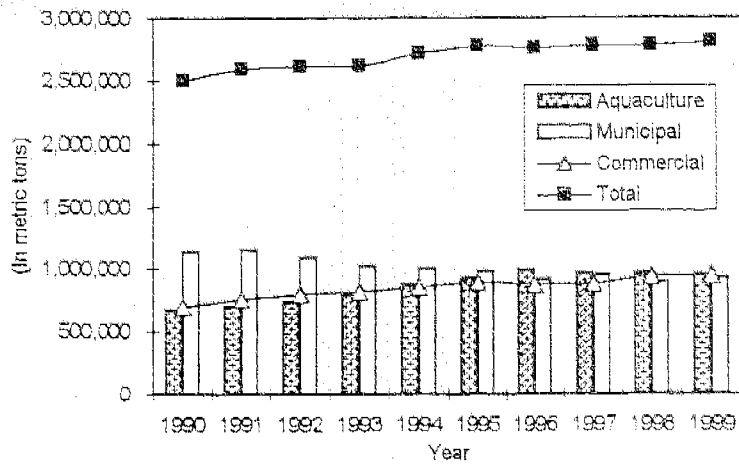


Figure 2

FISH PRODUCTION, BY SECTOR, 1990-1999



VALUE OF FISH PRODUCTION, BY SECTOR 1990-1999

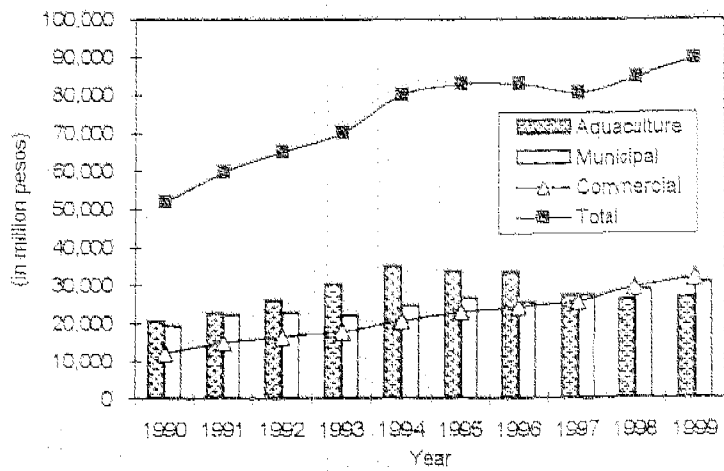


Figure 3

III. AQUACULTURE PRODUCTION, 1999

This includes production from the following:

- Brackishwater fishpond
- Freshwater fishpond
- Fishpen and fishcage in fresh and marine waters
- Mariculture of oyster, mussel and seaweeds

**A. SUMMARY OF AQUACULTURE PRODUCTION
BY CULTURE SYSTEM AND REGION, 1999**

Region	Total Aqua- culture	Brackish- water Fishpond	Fresh- water Fishpond	Fresh and Marine water		Mariculture
				Fishpen	Fishcage	
NCR	3,811	3,057	0	620	134	0
CAR	1,015	0	211	0	804	0
I	28,713	16,149	1,537	5,532	2,266	3,229
II	2,713	745	1,504	0	457	7
III	94,499	59,652	32,849	68	85	1,845
IV	182,449	15,536	674	29,464	20,847	115,928
V	18,391	2,699	65	0	3,958	11,669
VI	76,698	48,288	194	0	22	28,194
VII	19,949	8,704	1	0	a/	11,244
VIII	4,219	1,690	62	0	19	2,448
IX	126,581	10,153	64	25	21	116,312
X	2,315	2,088	187	2	18	20
XI	16,291	12,265	861	368	2,308	489
XII	8,812	8,162	492	0	136	22
XIII	3,265	2,245	48	11	29	932
ARMM	359,274	1,771	30	6	10	357,457
TOTAL	948,995	193,209	38,779	36,097	31,114	649,796

a/ less than one metric ton

**B. AQUACULTURE PRODUCTION, BY CULTURE SYSTEM,
SPECIES AND REGION, 1999**

1. Production from Brackishwater Fishpond (in MT)

Region	Total	Bangus	Sugpo	Other	
				Shrimp/Prawn	Others *
NCR	3,057	3,031	10	0	16
CAR	0	0	0	0	0
I	16,149	14,679	170	80	1,220
II	745	211	160	69	305
III	59,652	34,147	18,458	22	7,025
IV	15,536	13,419	1,853	130	134
V	2,699	1,266	334	146	953
VI	48,288	46,863	935	88	402
VII	8,704	6,623	2,055	0	26
VIII	1,690	1,458	215	0	17
IX	10,158	5,585	3,403	495	675
X	2,088	1,264	761	0	63
XI	12,265	11,619	416	17	213
XII	8,162	3,327	4,775	57	3
XIII	2,245	1,093	893	133	126
ARMM	1,771	1,435	189	34	113
TOTAL	193,209	146,020	34,627	1,271	11,291

Others :

Tilapia (7,068)

Mudcrab (4,215)

Grouper (6)

Siganid (2)

2. Production from Freshwater Fishpond, 1999
(in MT)

Region	Total	Tilapia	Mudfish	Catfish	Carp	Others *
CAR	211	203	0	a/	8	0
I	1,537	1,487	20	19	8	3
II	1,504	1,230	65	168	15	26
III	32,849	30,920	1,036	712	76	105
IV	674	640	20	0	12	2
V	65	57	0	7	1	0
VI	194	72	4	114	1	3
VII	1	1	0	0	0	0
VIII	62	59	1	0	0	2
IX	64	59	5	0	0	0
X	187	176	0	0	11	0
XI	861	782	28	35	15	1
XII	492	352	75	26	36	3
XIII	48	17	18	8	5	0
ARMM	30	27	1	1	1	0
TOTAL	38,779	36,082	1,273	1,090	189	145

* Others

Gourami (86)

Bangus (20)

Not Specified (39)

**4. Production from Fish Cage in
Fresh and Marine Waters, 1999
(in MT)**

Region	Total	Tilapia	Bangus	Others
NCR	134	120	0	14
CAR	804	804	0	0
I	2,266	8	2255	3
II	457	457	0	0
III	85	65	20	0
IV	20,847	20,789	0	58
V	3,958	3,958	0	0
VI	22	0	8	14
VII	a/	0	0	a/
VIII	19	0	0	19
IX	21	0	0	21
X	18	0	11	7
XI	2,308	1,981	320	7
XII	136	43	93	0
XIII	29	0	0	29
ARMM	10	10	0	0
TOTAL	31,114	28,235	2,707	172

a/ less than one metric ton

Others:

Carp (72)

Grouper (60)

Misc. Species (40)

3. Production from Fishpen, in
Fresh and Marine Waters, 1999
(in MT)

Region	Total	Bangus	Tilapia	Others
NCR	620	620	0	0
CAR	0	0	0	0
I	5,532	5,528	0	4
II	0	0	0	0
III	68	58	6	4
IV	29,464	15,353	4,040	10,071
V	0	0	0	0
VI	a/	0	0	a/
VII	a/	0	0	a/
VIII	0	0	0	0
IX	26	0	0	26
X	2	2	0	0
XI	368	368	0	0
XII	0	0	0	0
XIII	11	1	0	10
ARMM	5	0	5	0
TOTAL	36,097	21,930	4,052	10,115

a/ less than one metric ton

Others:

Carp (10,071)

Misc. Species (44)

**5. Production from Mariculture, 1999
(in MT)**

Region	TOTAL	Oyster	Mussels	Seaweeds
NCR	0	0	0	0
CAR	0	0	0	0
I	3,229	3,229	0	0
II	7	7	0	0
III	1,845	1,845	0	0
IV	115,928	5,143	5,100	105,685
V	11,669	27	693	10,949
VI	28,194	3,106	7,291	17,797
VII	11,244	70	1	11,173
VIII	2,448	0	2,381	67
IX	116,312	222	12	116,078
X	20	0	0	20
XI	489	49	0	440
XII	22	0	0	22
XIII	932	0	0	932
ARMM	357,457	0	0	357,457
TOTAL	649,796	13,698	15,478	620,620

C. MAJOR SPECIES PRODUCED IN AQUACULTURE FISHERIES, 1999

Species	Quantity (MT)	Percent (%)
Seaweeds	620,620	65.4
Bangus (milkfish)	170,677	18.0
Tilapia (cichlid)	75,437	7.9
Shrimps/Prawns	35,898	3.8
Others	46,363	4.9
TOTAL	948,995	100.0

D. TEN MAJOR LAKES OF THE PHILIPPINES

Name of Lakes	Location	Area (ha)
1. Laguna de Bay	Laguna and Rizal	89,076
2. Lake Lanao	Lanao del Sur	34,000
3. Taal Lake	Batangas	24,356
4. Lake Mainit	Surigao del Norte- Agusan	17,430
5. Naujan Lake	Oriental Mindoro	7,899
6. Lake Buluan	Maguindanao	6,134
7. Lake Bato	Camarines Sur	3,792
8. Lake Pagusi	Agusan	2,532
9. Lake Labas	South Cotabato	2,141
10. Lake Lumao	Agusan	1,686
TOTAL		189,046

IV. MUNICIPAL FISHERIES PRODUCTION, 1999

This includes fishing done in coastal and inland waters with or without the use of boats of 3 gross tons or less.

**A. MUNICIPAL FISHERIES PRODUCTION, BY REGION, 1999
(in MT)**

Region	Marine	Inland	Total
NCR	4,156	0	4,156
CAR	0	639	639
I	22,482	524	23,006
II	11,595	2,711	14,306
III	8,213	2,007	10,220
IV	157,251	104,638	261,889
V	70,137	389	70,526
VI	131,191	1,426	132,617
VII	45,268	52	45,320
VIII	36,922	5	36,927
IX	111,448	213	111,661
X	15,490	261	15,751
XI	47,811	826	48,637
XII	6,245	12,068	18,313
XIII	61,022	2,779	63,801
ARMM	45,408	15,604	61,012
Total	774,639	144,142	918,781

D. NUMBER OF MUNICIPAL FISHING BANCAS, BY REGION

Region	1980 ^{9/}			1985 ^{9/}		
	Total	Moto-rized	Non-Moto-rized	Total	Moto-rized	Non-Moto-rized
NCR	3,223	2,463	760	3,553	3,046	507
I	10,894	5,258	5,636	12,720	7,519	5,201
II	6,479	999	5,480	3,085	1,138	1,947
III	16,365	9,378	6,987	21,433	13,686	7,748
IV	53,323	22,290	31,033	54,617	32,232	22,385
V	39,739	10,727	29,012	49,303	18,563	30,740
VI	27,524	8,788	18,736	28,327	12,882	15,445
VII	48,263	9,203	39,060	64,740	21,286	43,454
VIII	43,416	7,598	35,818	40,702	10,782	29,920
IX	44,489	10,088	34,401	113,459	37,208	76,251
X	26,775	7,028	19,747	20,370	9,288	11,082
XI	24,387	7,868	16,519	35,174	18,883	16,291
XII	22,961	3,402	19,559	16,912	7,464	9,448
TOTAL	367,838	105,090	262,748	464,395	193,976	270,419
PERCENT						
%	100%	29%	71%	100%	42%	58%

V. COMMERCIAL FISHERIES PRODUCTION, 1999

Fishing with the use of fishing vessels
more than 3 gross tons.

A. COMMERCIAL FISHERIES PRODUCTION,
BY REGION, 1999

Region	Total (MT)
NCR	160,098
CAR	0
I	1,863
II	12,660
III	10,950
IV	145,143
V	22,364
VI	123,299
VII	62,547
VIII	30,688
IX	161,502
X	19,636
XI	142,644
XII	10,287
XIII	4,712
ARMM	40,361
TOTAL	948,754

D. NUMBER OF COMMERCIAL FISHING VESSEL
BY REGION, 1998 ^{10/}

Region	Number	Gross Tonnage
NCR	1,502	202,570.10
I	60	1,231.52
II	20	554.24
III	32	856.95
IV	120	2,458.23
V	159	5,113.02
VI	390	24,591.81
VII	98	2,436.54
VIII	102	1,377.78
IX	330	18,824.37
X	49	262.89
XI	482	38,674.32
XII	13	154.03
XIII	52	548.08
ARMM	7	181.94
Total	3,416	299,885.82

**B. COMMERCIAL FISHERIES PRODUCTION,
BY MAJOR FISH SPECIES, 1997**

Major Species	Total (MT)	% to Total
1. Roundscad (Galunggong)	196,588	22.2
2. Indian Sardines (Tamban)	153,523	17.4
3. Skipjack (Gulyasan)	85,359	9.6
4. Fimbrated Sardines (Tunsoy)	58,610	6.6
5. Frigate Tuna (Tulingan)	56,595	6.4
6. Anchovies (Dilis)	35,518	4.0
7. Slipmouth (Sapsap)	35,410	4.0
8. Yellowfin & Big-eyed Tuna (Albacore, Tambakol)	30,955	3.5
9. Indian Mackerel (Alumahan)	25,765	2.9
10. Big-eyed scad (Matangbaka)	25,402	2.9
11. Other Species	180,926	20.5
Total	884,651	100.0

**C. COMMERCIAL FISHERIES PRODUCTION,
BY MAJOR FISHING GROUNDS, 1995
(IN MT)**

Fishing Ground	Total	% to Total
1. West Palawan Waters	187,728	21.02
2. South Sulu Sea	180,532	20.21
3. Visayan Sea	120,267	13.46
4. Moro Gulf	83,352	9.33
5. Lamon Bay	55,325	6.19
6. International Waters	44,140	4.94
7. Bohol Sea	36,161	4.05
8. Samar Sea	25,602	2.87
9. Manila Bay	25,046	2.80
10. Guimaras Strait	24,163	2.71
11. Sibuyan Sea	20,065	2.25
12. East Sulu Sea	18,994	2.13
13. Tayabas Bay	17,140	1.92
14. Others	54,717	6.13
Total	893,232	100.00

**B. MARINE MUNICIPAL FISH CATCH,
BY MAJOR FISH SPECIES, 1997**

	Major Species	Total	% to Total
1.	Frigate Tuna (Tulingan)	51,899	6.8
2.	Fimbrated Sardines (Tunsoy)	45,978	6.0
3.	Anchovies (Dilis)	43,160	5.6
4.	Pusit (Squid)	41,207	5.4
5.	Indian Sardines (Tamban)	38,639	5.1
6.	Yellowfin & Big-Eyed Tuna (Albacore, Tambakol)	36,387	4.8
7.	Roundscad (Gaiunggong)	32,290	4.2
8.	Blue Crabs (Alimasag)	28,786	3.8
9.	Big-Eyed Scad (Matangbaka)	28,765	3.8
10.	Indian Mackerel (Alumahan)	27,418	3.6
11.	Others	390,198	51.0
	Total	764,727	100.0

**C. MARINE MUNICIPAL FISHERIES PRODUCTION,
BY MAJOR FISHING GROUNDS, 1995
(in MT)**

Fishing Ground	Total	% to Total
1. Visayan Sea	88,616	11.28
2. Moro Gulf	73,938	9.41
3. East Sulu Sea	71,486	9.10
4. Bohol Sea	70,756	9.01
5. Guimaras Strait	51,332	6.54
6. Leyte Gulf	49,901	6.35
7. West Palawan Waters	46,943	5.98
8. South Sulu Sea	42,019	5.35
9. Lamon Bay	41,862	5.33
10. Samar Sea	40,236	5.12
11. Davao Gulf	33,743	4.30
12. Cuyo Pass	25,587	3.26
13. Tayabas Bay	17,498	2.23
14. Others	131,447	16.74
Total	785,369	100.00

VI. EXTERNAL TRADE

A. EXPORTS

1. Export of Fish and Fishery Products By Kind, Quantity and Value, 1999

Commodity/Kind	Quantity (MT)	FOB Value	
		(000 P)	(000 \$)
1. Fish Crustaceans, Mollusks, etc. and Preparation	128,806	15,049,346	373,458
a. Fish fresh (live or dead) chilled or frozen	57,220	3,618,836	89,803
b. Fish, dried, salted or in brine, smoked fish	820	122,130	3,031
c. Crustaceans, mollusks and aquatic invertebrates	30,530	7,843,420	194,639
d. Fish and other aquatic invertebrate, prepared/ preserved	40,236	3,464,960	85,985
2. Shells and By-Products	1,765	762,754	18,928
3. Miscellaneous and Other Fishery Products	42,274	3,525,404	87,485
GRAND TOTAL	172,845	19,337,504	479,871

Commodity/Kind	Quantity (MT)	FOB Value (P 000)	FOB Value (\$ 000)
6. Pearls	1	456,574	11,330
Natural	n	2191	54
Cultured)	1	454,383	11,276
7. Cuttlefish/squid	1,310	290,360	7,205
Fresh/chilled	19	2,878	71
Frozen/dried/salted	1,271	283,397	7,033
Prepared/preserved	20	4,085	101
8. Ornamental fish, live	5,558	260,919	6,475
9. Lobster	782	228,279	5,665
Frozen	196	79,760	1,979
Other than frozen	586	148,519	3,686
10. Lapu-lapu, live	3,721	186,282	4,623
Total major commodities	157,917	17,397,251	431,722
Total of other commodities	14,928	1,940,253	48,149
Grand Total	172,845	19,337,504	479,871

N - negligible (less than one metric ton)

Source of data: National Statistics office (NSO)

2. Major Fishery Exports in Terms of Value, 1999

Commodity/Kind	Quantity (MT)	FOB Value (P 000)	FOB Value (\$ 000)
1. Tuna	79,133	5,536,140	137,382
Fresh/chilled/frozen	42,023	2,345,524	58,205
Smoked	253	42,867	1,064
Canned	36,857	3,147,749	78,113
2. Shrimp/Prawn	11,058	5,142,229	127,608
Fresh/chilled/frozen	10,925	5,091,511	126,349
Other than frozen	133	50,718	1,259
3. Seaweeds	41,831	3,486,105	86,509
Seaweeds & other Algae, nes	32,311	1,774,865	44,044
Seaweeds & algae for food	555	28,015	695
Carrageenan	8,184	1,674,073	41,543
Kelp powder	781	9,152	227
4. Octopus	11,127	1,273,375	31,599
Frozen/dried/salted	11,127	1,273,375	31,599
5. Crabs/crabs fat	3,396	536,988	13,325
Frozen	128	17,674	439
Other than frozen	3,083	473,204	11,743
Prepared/preserved	185	46,110	1,144

Commodity/Kind	Quantity (MT)	FOB Value (000 P)	FOB Value (000 \$)
Other than frozen	133	50,718	1,259
Japan	130	49,941	1,239
Kuwait	2	499	12
Others	1	278	8
3. Seaweeds	41,831	3,486,105	86,509
Seaweeds & other Algae, nes	32,311	1,774,865	44,044
United Kingdom	1,712	250,686	6,221
Denmark	4,307	232,067	5,759
U S A	2,780	231,046	5,733
Others	23,512	1,061,066	26,331
Seaweeds & algae for food	555	28,015	695
U S A	377	8,998	223
Okinawa	45	6,138	152
Japan	33	4,642	115
Others	100	8,237	205
Carrageenan	8,184	1,674,073	41,543
Denmark	644	271,847	6,746
France	1,177	249,462	6,190
United Kingdom	1,391	233,877	5,804
Others	4,972	918,887	22,803
Kelp powder	781	9,152	227
Japan	781	9,152	227
Total (3) major commodities	132,022	14,164,474	351,499
Total other commodities	40,823	5,173,030	128,372
Grand Total	172,845	19,337,504	479,871

Source of basic data: National Statistics Office (NSO)

3. Major Destinations of Top Three Fishery Exports
by Kind, Quantity and Value, 1999

Commodity/Kind	Quantity (MT)	FOB Value (000 P)	FOB Value (000 S)
1. Tuna	79,133	5,536,140	137,382
Fresh/chilled/frozen	42,023	2,345,524	58,205
Japan	22,422	937,323	23,260
U S A	4,286	824,435	20,459
Thailand	10,722	250,559	6,218
Others	4,593	333,207	8,268
Smoked/dried	253	42,867	1,064
Japan	158	21,106	524
U S A	53	16,961	421
Hawaii	15	3,012	75
Others	27	1,788	44
Canned	36,857	3,147,749	78,113
U S A	9,333	675,835	16,771
Canada	6,067	541,198	13,430
Germany	3,447	306,486	7,606
Others	18,010	1,624,230	40,306
2. Shrimp/Prawn	11,058	5,142,229	127,608
Fresh/chilled/frozen	10,925	5,091,511	126,349
Japan	8,221	3,896,019	96,682
U S A	1,374	674,905	16,748
Korea	324	165,252	4,101
Others	1,006	355,335	8,818

4. Fishery Exports, by Major Country of Destination
in Terms of Value, 1999

Country/Destination	Quantity (MT)	FOB Value (000 P)	FOB Value (000 S)
Japan	39,117	5,146,365	152,526
U S A	32,758	4,164,165	103,336
Hongkong	16,571	1,575,682	39,101
United Kingdom	6,252	759,798	18,855
Canada	7,299	747,326	18,545
Denmark	5,177	523,111	12,981
Germany	4,712	501,290	12,440
France	6,757	491,138	12,188
Singapore	3,907	408,337	10,133
Korea	4,039	383,580	9,519
Total Major Countries	126,589	15,700,792	389,624
Other Countries	46,256	3,636,712	90,247
Grand Total	172,845	19,337,504	479,871

Source of data: National Statistics Office (NSO)

MAJOR FISHERIES EXPORTS IN TERMS OF VALUE, 1999

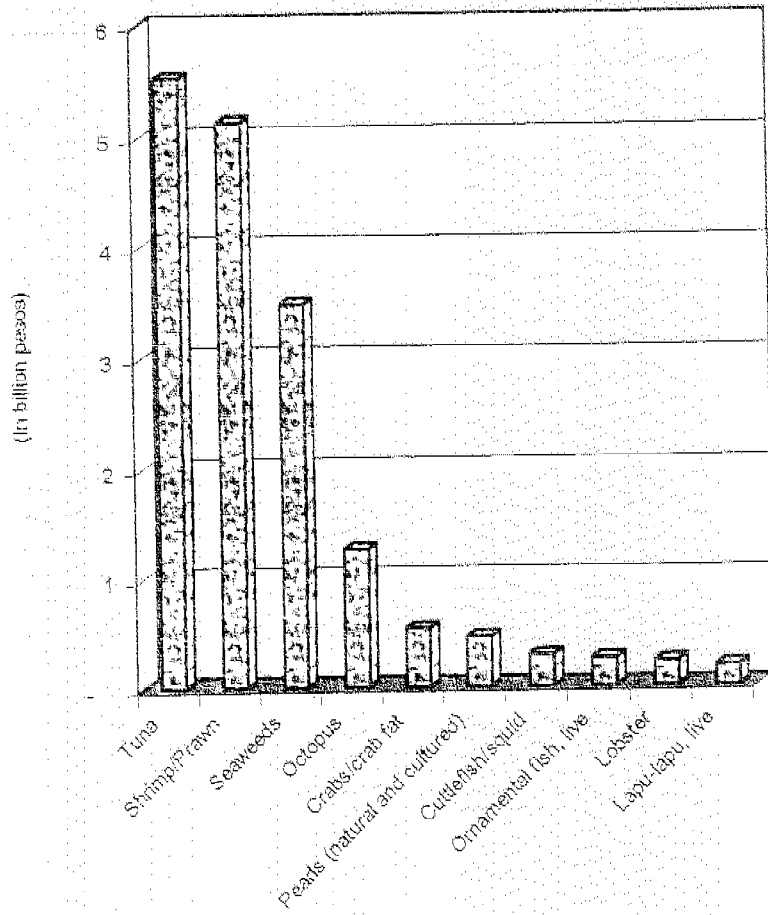


Figure 4

G. Fish Production, by Sector 1990-1999 ⁷⁷

1. Volume of Fish Production (in MT)

Year	Aquaculture	Municipal	Commercial	Total
1999	948,995	918,781	948,754	2,816,530
1998	954,656 R	891,146	940,533	2,786,335 R
1997	957,390	942,466	884,651	2,766,507
1996	980,829	909,248	879,073	2,769,150
1995	919,810	972,043	893,232	2,785,085
1994	869,083	992,578	859,328	2,720,989
1993	793,620	1,013,969	824,356	2,631,945
1992	736,381	1,084,360	804,866	2,625,607
1991	692,401	1,146,765	759,815	2,598,981
1990	671,116	1,131,866	700,564	2,503,546

R - Revised

B. IMPORTS

1. Imports of Fish and Fishery Products By Kind, Quantity and Value, 1999

Commodity	Quantity (MT)	FOB Value	
		(000 P)	(000 \$)
Fresh/Frozen/Chilled	164,514	2,801,431	68,315
Flour, Meals & Pellets of Fish Crustaceans and Mollusks Unfit for Human Consumption	73,139	1,122,117	27,363
Canned	1,351	74,803	1,824
Salted, Dried, Smoked, etc.	11,977	195,587	4,770
Other Commodities	4,085	205,064	5,000
GRAND TOTAL	255,066	4,399,002	107,272

2. Major Fishery imports in Terms of Value, 1999

COMMODITY/KIND	QUANTITY (MT)	FOB VALUE (000 P)	FOB VALUE (000 \$)
1. Chilled Frozen Fish	156,882	2,584,658	63,028
a) Tuna	57,235	1,420,637	34,643
Indonesia	23,360	580,440	14,154
Taiwan	8,162	222,038	5,414
Others	25,713	618,159	15,075
b) Sardines	38,667	411,866	10,043
Mauritania	13,663	138,569	3,379
U S A	5,818	6,618	1,614
Others	19,186	266,679	5,050
c) Mackerel	60,980	752,155	18,342
Korea	22,216	248,739	6,066
Taiwan	14,841	177,426	4,327
Others	23,923	325,990	7,949
2. Flour, meals & pellets of fish crustaceans & mollusks unfit for human consumption	73,139	1,122,117	27,363
Peru	60,127	916,720	22,355
U S A	6,748	87,651	2,137
Others	6,264	117,746	2,871
Total major imports	230,021	3,706,775	90,391
Other Commodities	25,045	692,227	16,881
Grand Total	255,066	4,399,002	107,272

Source of Data: National Statistics Office

**3. Fishery Imports, By Major Country Of Origin
In Terms of Value, 1999**

Major Countries	QUANTITY (MT)	FOB VALUE (000 P)	FOB VALUE (000 \$)
1. Peru	61,264	935,728	22,818
2. Indonesia	26,228	640,726	15,625
3. Taiwan	28,435	517,518	12,620
4. Korea	29,569	388,709	9,479
5. U S A	21,136	326,476	7,961
6. China, Peoples Rep. of	9,844	167,759	4,579
7. Trust Territory of	6,276	162,172	3,955
8. New Zealand	7,487	147,068	3,586
9. Mauritania	13,953	142,542	3,476
10. Hongkong	9,729	107,177	2,613
Total major countries	213,921	3,555,875	86,712
Other Countries	41,145	843,127	20,560
Grand Total	255,066	4,399,002	107,272

**VII. OTHER FISHERIES
INFORMATION**

**A. PER CAPITA FOOD CONSUMPTION, PHILIPPINES,
1993^{11/}**

Food Group/Subgroup	Consumption (Raw, As Purchased) *		% of Total Food Intake
	kg/yr	g/day	
Cereals and Cereal Products	124	340	42.3
Rice and Products	103	282	35.1
Corn and Products	13	36	4.5
Other Cereals and Products	8	22	2.7
Starchy Roots and Tubers	6	17	2.1
Sugar and Syrups	7	19	2.4
Fats and Oils	4	12	1.5
Fish, Meat and Poultry	54	147	18.3
Fish and Products	36	99	12.3
Meat and Products	12	34	4.2
Poultry	5	14	1.7
Eggs	4	12	1.5
Milk and Milk Products	16	44	5.5
Whole Milk	13	35	4.4
Milk Products	3	9	1.1
Dried Beans, Nuts and Seeds	4	10	1.2
Vegetables	39	106	13.2
Green Leafy and Yellow Vegetables	11	30	3.7
Other Vegetables	28	76	9.5
Fruits	28	77	9.6
Vitamin C-Rich Fruits	8	21	2.6
Other Fruits	20	56	7
Miscellaneous	7	19	2.4
Beverages	3	9	1.1
Condiments and Others	4	11	1.4

* As available in the kitchen including inedible and edible wastage.

B. PER CAPITA FOOD CONSUMPTION OF FISH AND FISHERY PRODUCTS, 1993 ^{11/}

Fish and Other Products		Total (Kg/Year)
1.	FISH	36
1.1	Fresh Fish	24
	Tulingan (Frigate Tuna)	4
	Bangus (Milkfish)	1
	Galunggong (Roundscad)	4
	Dilis, Buo (Anchovy)	1
	Alumahan (Indian Mackerel)	1
	Tamban (Sardines)	2
	Dalagang Bukid (Fusilier)	
	Sapsap (Slipmouth)	1
	Bisugo (Threadfin Bream)	1
	Tiapia (Cichlid)	1
	Albakora/Tambako	1
	Baila/Espada	n
	Hasa-hasa	n
	Lapu-lapu	n
	Matangbaka	1
	Maya-Maya	n
	Salay-salay	n
	Siinyasi/Tunsoy	n
	Tanigue	n
	Others (fresh fish & cooked fish recipe)	4
1.2	Dried Fish (as fresh fish)	4
1.3	Processed Fish *	4
	Bagoong (as fresh fish)	1
	Pats	n
	Canned Fish (sardines, mackerel, salmon)	2
	Smoked fish (all tinapa type)	1
1.4	Crustaceans and Mollusks	4
	Shrimp (all type)	n
	Crabs	1
	Squid/Octopus	1
	Tahong	1
	Others (fresh)	1
	Dried and Processed (as fresh)	n
	Bagoong (as fresh)	n

Notes:

1. Raw as purchased weight or as available in the kitchen including inedible and edible wastage.
2. Breakdown don't add up to total due to roundings
3. N- negligible (less than 0.5 grams)

**C. PRODUCTIVE AREA IN AQUACULTURE FISHERIES,
BY CULTURE SYSTEM AND REGION, 1995* 7/**
(in ha)

Region	Total Aquaculture	Fishpond		Fishpen in Fresh & Marine Water	Fishcage in Fresh & Marine Water	Mariculture		
		Brackish Water	Fresh Water			Oyster	Mussel	Seaweed
NCR	4,395.30	4182	0.00	196.88	3.53		12.89	
CAR	112.22	0	65.03		47.19			
I	9,619.00	6726	797.46	1.35	2.00	92.19		
II	1,874.68	1367	490.32		12.87	4.49		
III	38,884.44	34368	4,427.44	5.06	32.26	51.66		
IV	14,658.48	10168	73.39	3,992.38	365.23	8.13	24.81	36.54
V	6,312.59	5433	25.37		541.04	0.24	30.92	262.02
VI	29,862.23	29393	84.03		0.37	58.20	283.26	43.37
VII	6,083.15	5689	10.59			2.15	0.10	381.31
VIII	2,469.42	2433	5.29				28.22	2.91
IX	29,286.66	27304	15.04	5.86		9.84	0.76	1,951.15
X	932.92	919	11.91		0.01			2.00
XI	6,002.04	5299	316.91	4.15	354.92	1.09		25.97
XII	3,518.23	3338	176.23				0.25	3.75
XIII	3,524.56	3501	20.03		0.15			3.38
ARMM	4,688.62	1077	3.67	0.15	9.36			3,598.44
TOTAL	162,234.54	143,197	6,522.71	4,205.83	1,368.95	227.98	381.22	5,330.84

* This refers to the area being utilized during the reference period.

D. NOMINAL CATCHES OF FISH, CRUSTACEANS AND MOLLUSCS, BY MAJOR PRODUCERS, 1997

Country	Production (000 MT)	% Share to Total
1. China, Main	15,722	16.8
2. Peru	7,870	8.4
3. Japan	5,862	6.3
4. Chile	5,811	6.2
5. U S A	5,010	5.4
6. Russian fed.	4,662	5.0
7. Indonesia	3,649	3.9
8. India	3,602	3.9
9. Thailand	2,912	3.1
10. Norway	2,857	3.1
11. Iceland	2,206	2.4
12. Korea D P Rp	2,204	2.4
13. Denmark	1,827	2.0
14. Philippines	1,806	1.9
15. Other Countries	27,309	29.2
World Total	93,329	100.0

Source of data: FAO Yearbook, 1997

**E. WORLD AQUACULTURE PRODUCTION
(Fish and Shellfish) BY PRINCIPAL PRODUCERS, 1997**

Country	Production (000 MT)	% Share to Total	Value (000 \$)	% Share to Total
1. China, Main	19,316	67.1	20,510	45.1
2. India	1,776	6.2	1,975	4.3
3. Japan	807	2.8	3,525	7.8
4. Indonesia	755	2.6	2,225	4.9
5. Thailand	576	2.0	1,783	3.9
6. Bangladesh	513	1.8	1,370	3.0
7. Vietnam	480	1.7	1,112	2.4
8. U S A	438	1.5	771	1.7
9. Korean Rep	392	1.4	913	2.0
10. Norway	366	1.3	1,044	2.3
11. Philippines	330	1.1	898	2.0
12. France	287	1.0	634	1.4
13. Chile	272	0.9	919	2.0
14. China Taiwan	258	0.9	946	2.1
15. Other Countries	2,242	7.8	6,843	15.1
World Total	28,808	100.0	45,468	100.0

Source of data: FAO Aquaculture Production Statistics, 1988-1997

**F. PRODUCTION OF SEaweEDS
BY PRINCIPAL PRODUCERS, 1997 ***

Country	Production (000 MT)	% Share to Total
1. China, Main	4,253	62.8
2. Korea Rep	648	9.6
3. Philippines	627	9.3
4. Japan	523	7.7
5. Korea D P Rp	419	6.2
6. Indonesia	157	2.3
7. Chile	103	1.5
8. Other Countries	40	0.6
World Total	6,770	100.0

Source: FAO Aquaculture Production Statistics, 1988-1997

G. PRICES OF SELECTED FISH SPECIES,
PHILIPPINES, 1999 ^{7/}

Species	Wholesale	Retail
1. Alimasag	61.61	82.24
2. Alumahan	53.6	64.76
3. Bangos	65.75	79.58
4. Bisugo	61.22	82.45
5. Dalagang-bukid (lapad)	59.5	85.26
6. Dilis	32.65	46.72
7. Galunggong	40.03	53.41
8. Hipon (Suahe)	207.62	-
9. Hipon (Sugpo)	288.27	317.9
10. Sepsap	31.98	60.64
11. Tambakol	49.01	-
12. Tilapia	50.16	68.27
13. Tulingan	42.41	51.29

FOOTNOTES

Sources of Data:

- 1/ NAMRIA, 1990
- 2/ 1992 Fishery Statistics, Bureau of Agricultural Statistics (BAS)
This refers to fishpond area acquired by the operator whether utilized or not during the reference period.
This includes nursery and transition ponds and undeveloped areas.
- 3/ The National Accounts of the Philippines as of January, 2,000
National Statistical Coordination Board (NSCB)
- 4/ 1987 Fisheries Statistics, Bureau of Fisheries and Aquatic Resources (BFAR)
- 5/ 1980 Census of Fisheries
- 6/ National Statistics Office (NSO)
- 7/ Bureau of Agricultural Statistics (BAS)
- 8/ Lakes and Reservoirs, State of the Art Series, report no. 1, PCARRD.
- 9/ Regional Fish Expanded Program and Provincial Fisheries Data
Regulatory and Quarantine Division
- 10/ Department of Science & Technology (DOST)
- 11/ Fourth National Nutrition Survey, Phil. 1993