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STATUS AND TRENDS OF FISHERY AND AQUACULTURE IN THE WECAFC REGION

SUMMARY

This document reviews recent trends in fishery production, the use of and trade in fishery products in the WECAFC region and actions that might be taken to maintain and improve the sector's contribution to the economy. It also includes a brief discussion of certain issues of regional and international importance.

Introduction

1. The fisheries sector makes a significant contribution to the economies of the countries[1] of the Western Central Atlantic region. In economic and social terms, the sector contributes to food security, brings in foreign exchange, creates jobs and furthers the development of rural and coastal zones. Fisheries in the WECAFC region are part of a complex production system which includes both small-scale and industrial production and a variety of extraction, processing and marketing activities. The sector, which depends on a number of services and a support infrastructure, is closely linked to both the domestic and the international markets. Moreover, the fisheries industry has strong social and cultural roots and thus plays a key role in society. The countries of the region can therefore benefit from a study of trends in the sector and of the options that might be explored for maintaining and enhancing its role.

Fishery production

2. In 1999, total fishery production (fishing and aquaculture) in the WECAFC region amounted to 8.5 million metric tons, slightly less than in 1998. Thus, it was relatively stable during the period 1989-1998, having peaked in 1989 at 9.2 million metric tons.

[1] In this paper, the term "country" is also used to refer to territories and provinces. This usage does not reflect any decision or opinion on the part of FAO with regard to the legal or institutional status of any country or territory or any boundary thereof. The term is also applied to groups of countries referred to in this document.

3. In terms of structure, statistics on captures in many countries whose coasts are totally or partially on the Western Central Atlantic do not refer solely to this maritime area. Total capture figures for the WECAFC countries also cover other fishing areas, as well as fishing operations in continental waters. In 1999, total captures of the WECAFC countries amounted to 7.7 million metric tons, or 91 per cent of total fisheries production. It should be noted that during the period 1989-1998, captures also showed signs of stability, although the trend was moderately downward owing to a decline in unloading of catches originating outside the WECAFC area.

4. In 1999, captures originating in the WECAFC area totalled 1.7 million tons, confirming the stable trend achieved during the period 1989-1999. This stability is also reflected in the figures for total captures in the region as a share of worldwide captures, which in 1999 amounted to 2.1 per cent, a level very similar to that of previous years. In 1999, these captures represented 23 per cent of total captures and 21 per cent of total fishery production of the member countries. The United States usually accounts for a significant share of captures in the WECAFC region, e.g., in 1999, the United States accounted for 53.2 per cent of regional captures.

5. Aquaculture production in 1999 totalled 0.8 million tons, or nine per cent of fishery production for the year. Aquaculture production has shown an upward trend during the period under consideration, having nearly doubled in 1999 with respect to the production figure for 1989.

Use and consumption of fish

6. Fish consumption for non-food uses among the WECAFC member countries is considerably lower than the world average. The available data for the three-year period 1997-1999 show that non-food use accounted for 19 per cent of fishery production (table 2). This indicates a slight increase compared with the three-year period 1991-1993, when it amounted to 16 per cent, and 1994-1996, with 17 percent. It is interesting to note that in the early 1970s, non-food uses of fish amounted to 28 per cent. When the estimates for the United States are left out, the share of non-food uses for the remaining WECAFC countries is somewhat lower, i.e., 15 per cent in 1999.

7. Average annual per capita consumption for the WECAFC countries in 1997-1999 amounted to 13.5 Kg., which is slightly lower than the 14 Kg. estimated for the three-year period 1994-1996 and almost the same as the figure for the period 1991-1993. These values are somewhat under the world average of 16.3 Kg. in 1999. Leaving out the United States, annual per capita consumption amounted to 8 Kg. in 1997-1999. This is lower than the estimated 8.4 Kg. for 1994-1996, but still slightly higher than the 7.9 Kg. for 1991-1993. During 1991-1999, the food supply of fish clearly grew at a rate that was consistent with the growth of the population. However, a closer look at the figures by countries and groups of countries (Table 2) shows considerable disparities and a variety of situations in terms of supply and demand in the WECAFC region.

Imports and exports

8. Imports amounted to 41 per cent of total fish supply (live weight) in the WECAFC region during the three-year period 1997-1999; this represents a significant increase with respect to 1994-1996 and 1991-1994, when the share of imports was approximately 35 per cent. However, the figures are somewhat different when the estimates for the United States are excluded. The share of imports in supplies of the remaining countries of the region (live weight) was 25 per cent in 1997-1999; this is quite similar to the situation in 1994-1996.

9. In terms of value, imports in the countries of the region amounted to US$10.2 billion in 1999. This represents the peak level for the last five years, following a period of moderate but steady growth in the value of imports. In 1999, the United States accounted for 92 per cent of the total value of imports, and its share has been rising over the last five years. Conversely, the value of imports in the rest of the region has shown a downward trend during the same period.

10. As regards the type of fishery products that make up the value of regional imports, the main categories are frozen crustaceans and molluscs and fresh, refrigerated and frozen fish, in that order. However, when United States imports are excluded, the order changes. Fresh, refrigerated and frozen fish top the list, followed by dried, salted and smoked fish, frozen crustaceans and molluscs and tinned fish. Brazil is the main importer of dried, salted and smoked fish. Haiti, Jamaica and the Dominican Republic, in the Greater Antilles, and the countries of the Lesser Antilles also import significant amounts of those products. Frozen fishery products have recently contributed to meeting the growing demand generated by tourism in many countries.

11. Exports accounted for 20 per cent of total fishery production (live weight) during the triennium 1997-1999; this figure has remained stable since the early 1990s. If the figures for the United States are excluded, the share of exports amounts to 16 per cent. In 1999, the value of the region's exports amounted to US$4.88 billion, reflecting a moderate increase with respect to 1998, which marked the end of a slightly downward trend which began in 1995. On average, the region's exports, excluding those of the United States, accounted for approximately 40 percent of total production over the last five years. Fresh, refrigerated and frozen fish and frozen crustaceans and molluscs accounted for the largest shares.

12. The trade balance in respect of fishery products varies from country to country, as their situations vary considerably. The trade balance has traditionally been negative in some countries in the Greater Antilles and in the Lesser Antilles, Brazil and the United States. The Central American countries, most of the South American countries, Cuba and Mexico have had a positive trend for several years. The latter countries export products of high commercial value, such as shrimp, lobster, tuna and fish species that command high prices.

Supply of and demand for fish and fishery products

13. Demand for fish in the region varies by countries and by groups of countries. The island States and the continental countries of the WECAFC region, for example, vary widely in terms of consumption habits, products consumed, and the country's potential to increase supplies. Therefore, any study of demand that is conducted at the regional level can only provide a global indicator that may be helpful in identifying the more general factors that might affect short- and long-term demand. International demand is the most dynamic component of this variable, thanks mainly to exports to the United States and the growing tourism market. The products sent to these markets have a high commercial value. A steady increase in international demand on those markets and the prospect of obtaining profits and foreign exchange for many countries of the region could accelerate substitution mechanisms, which have already begun to operate in countries with a high per capita consumption. The absence of adequate fishery management systems could also affect the sustainability of fishery resources that are exploited intensively or over-exploited, creating pressure on supplies and domestic prices and triggering substitution processes in high-consumption countries.

14. In the last few years, the fisheries sector has been a particularly stable component of the food supply for the population of the region. This is even more so in the case of the WECAFC countries. The prospects for maintaining and even increasing the future contribution of this area to the food supply will depend on factors that are directly related to the fisheries sector, as well as on more general factors relating to the domestic economies and the international economy. At its ninth session, in considering the Report of the second meeting of the WECAFC Working Group on economics and fisheries planning[2], the Commission discussed some possible opportunities for increasing supply, as well as the action that might be needed in order to take advantage of those opportunities.

15. Recognizing the limited availability of commercial fishery resources in the Western Central Atlantic region, the aforementioned report suggests that increased fish supplies might be obtained through:

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[2] FAO, Fisheries Report No. 581 – SLAC/R581 (Bi) - 1998

- Improved yields as a result of better management of fully exploited or over-exploited fishery resources and the use, if economically feasible, of under-exploited or unexploited resources. For a detailed analysis of the status and management of fishery resources in the WECAFC region, see document WECAFC/X/01/3.
- Reduction of discards, especially in the case of fisheries of high commercial value;
- Better utilization of captures through improved handling methods and on-board storage;
- Increased incorporation of value added in industrial and small-scale operations;
- Increased aquaculture production.

16. The report of the Working Group points out that economic and social factors must be taken into account when implementing the measures suggested above. The objective of maintaining or increasing the role of fish as a source of food for the population of the region calls for appropriate sectoral strategies, policies and actions, such as the adoption of innovative forms of organization on the part of those engaged in small-scale fishing; institutional innovations in the field of fishery management, including research, efficient monitoring and surveillance and integration of fishing in coastal management; the adoption of marketing and distribution systems which, along with management systems, can ensure that fish supplies are accessible to consumers, in physical and economic terms; economically feasible fishing technologies that make it possible to optimize yields and preserve resources and the environment; legislation and regulations that take technical requirements into account and which are actually enforceable; establishment of effective fishery management systems and processes, including shared and high-sea resources.

17. During the intersessional period, actions have been carried out at the national and regional levels that are closely related to several of the areas mentioned above. These are discussed in documents WECAFC/X/01/05 and WECAFC/X/01/06. Some of these activities fall within the broader context of regional and international fishery issues. Following is a brief discussion of some of these issues:

Fishing of large pelagic species in the WECAFC region

18. In the search for ways to increase fishery production, several countries of the region are expanding operations involving pelagic species, others are exploring this possibility, and still others are considering the possibility of earning profits from sport fishing to support the tourism industry. Pelagic fishery resources are present, in different amounts and densities, in the waters of almost all the WECAFC countries. Many of these resources are already being exploited, mainly by countries outside the region, given that these species are highly migratory, sometimes moving across the entire Atlantic Ocean. The International Commission for the Conservation of Atlantic Tunas (ICCAT) is responsible for managing pelagic resources. The CARICOM countries have shown a keen interest in participating in this type of fishery and have requested technical assistance from FAO (Technical Cooperation Project RLA/0070). The goal is to produce: (i) An agreed approach to the management of large pelagic resources that are of interest to the Caribbean countries, through strategic collaboration with ICCAT and/or a regional approach to the management of species that occur entirely within the Caribbean region, and (ii) improved technical bases for negotiations on quotas.

Discard reduction

19. Catching associated species, discarding non-target species or species of little commercial value, and catching specimens that are smaller than the minimum size for target species are major causes of biological waste, overfishing, economic loss and loss of biodiversity. Agenda 21[3] (United Nations Conference on Environment and Development, 1992) and the Code of Conduct for

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[3] Agenda 21 (UNCED, 1992) calls on countries to promote the development and use of selective equipment and practices in order to minimize waste in catching target species and to minimize the incidental catch of non-target species.

Responsible Fisheries[4] (1995) pay special attention to this issue in the context of efforts to reflect the growing concern of the international community with the sustainability of fishery resources. Discarding of associated species in shrimp fishing has been and still is a matter of concern for the countries of the region owing to the large volume of discards associated with captures in this major fisheries category. A recent study[5] of the volume of associated species caught during operations of small-scale, semi-industrial and industrial fleets and the amounts actually unloaded is eloquent in this regard. A global project is currently underway that is aimed at reducing the impact of tropical shrimp fishery by developing technologies for reducing the catch of associated species and implementing changes in management (GEF/UNEP/FAO, ONU/58/2). The project covers several countries in the region (Cuba, Costa Rica, Mexico, Trinidad and Tobago and Venezuela), as well as six Asian and African countries.

Subsidies to the fisheries sector

20. In the context of the ongoing international debate on different aspects of fishery policy in the areas of trade, environment and development, FAO members have been reviewing the role of subsidies or economic incentives in international trade in fish and fishery products and their impact on the sustainability of fishery resources and on development. Member States want to know if subsidies affect the sustainability of fishery operations and trade, and if so, how. FAO member countries do not unanimously agree[6] on the role and impact of subsidies. The controversy on the matter has arisen partly as a result of the differences in the way individual countries view the use of subsidies as an economic policy tool. However, the controversy is also due to a lack of factual information on the impact of subsidies in the fisheries sector, inasmuch as very few in-depth studies have been conducted; furthermore, there is no consensus as to what type of government action should be deemed to be a subsidy. The question is also under review in the World Trade Organization. The issue was first taken up by experts in a heated discussion held in the context of a workshop on the impact of globalization and deregulation on Caribbean fisheries (Castries, St. Lucia, 4-8 December 2000). The participants in that workshop drew up a Caribbean fisheries agenda relating to globalization.

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[4] Code of Conduct for Responsible Fisheries (art. 7.6.9): “States should take appropriate measures to minimize waste, discards, catch by lost or abandoned gear, catch of non-target species, both fish and non-fish species, and negative impacts on associated or dependent species, in particular endangered species. Where appropriate, such measures may include technical measures related to fish size, mesh size or gear, discards, closed seasons and areas and zones reserved for selected fisheries, particularly artisanal fisheries. Such measures should be applied, where appropriate, to protect juveniles and spawners. States and subregional or regional fisheries management organizations and arrangements should promote, to the extent practicable, the development and use of selective, environmentally safe and cost effective gear and techniques.”

[5] Kuruvilla , Ferreira and Soomai,. *The Trawl Fishery of Trinidad and Tobago*. Fisheries Division, Ministry of Agriculture, Land and Marine Resources, April 2000.

[6] The debate on subsidies involves highly complex issues which are difficult to summarize concisely. For purposes of information, however, we shall attempt a very brief and simplified summary of some approaches to the subject. Many fishery managers, especially in fish-exporting countries, hold that government subsidies jeopardize the sustainability of fisheries and aquaculture. They ague that subsidies distort conditions on the fish and fishery products market, working in favour of countries that grant subsidies to the detriment of those that do not; therefore, they advocate the elimination of subsidies. Subsidies are also said to accelerate the development of surplus fishing capacity and threaten the permanent well-being of wild fish populations. Those who hold the opposite view, especially fish-importing countries, argue that subsidies are only one of many factors that can create surplus capacity and affect the sustainability of resources, and they point to poor fisheries management as one of the main causes of the problem. They argue that in the absence of proper management, extreme trade liberalization could eventually affect the sustainability of resources. Others hold that a distinction must be made between good subsidies and bad subsidies and that the bad ones must be eliminated. Many developing countries which do not and cannot grant broad subsidies to fishery activities claim that their fish exports suffer because of subsidies existing in countries with large markets and because of non-compliance with international trade liberalization agreements and treaties that provide special treatment for these countries.

21. Pursuant to a mandate handed down by member countries, the FAO Fisheries Department organized the Expert Consultation on Economic Incentives and Responsible Fisheries, held in Rome from 28 November to 1 December. It has since become quite clear that although not much is known about the nature and impact of most categories of subsidies, considerable information is available on the magnitude of the different types of subsidies applied and the mechanisms that operate in influencing the costs and income of firms. Only limited empirical data are available, however, on the quantitative and qualitative impact that changes in company performance as a result of subsidies might have on trade, on resources and on development. The Consultation concluded that it was feasible to conduct empirical studies on the impact of subsidies. The problem was deciding where to start, who should participate in the studies, and what approach they should follow. The Expert Consultation identified four sets of subsidies and developed a useful tool for facilitating analysis of the impact of subsidies and clarifying the political issues involved.

22. The report of the Expert Consultation was reviewed by FAO member countries at the twenty-fourth session of the Committee on Fisheries (Rome, 26 February-2 March 2001). COFI drew up recommendations and guidelines on the role of FAO and its future work in regard to subsidies. Bearing in mind the recommendation that FAO, as a global multidisciplinary organization, should play a leading role in promoting cooperation and coordination of work on this subject, the Fisheries Department organized a special meeting of inter-governmental organizations on programmes of work relating to subsidies in fisheries (Rome, 21-22 May 2001). The participating organizations (OECD, WTO, UNEP, SADC and FAO) exchanged information on efforts currently in progress and plans for future work, and they identified a number of opportunities for collaboration. The Committee on Fisheries also recommended that FAO should organize a second expert consultation, to be followed by an inter-governmental technical consultation on the matter of subsidies.

23. The international debate on the role and advisability of subsidies in fisheries and aquaculture has not ended. Those who are involved in the discussion will benefit from having access to a reliable base of information on subsidies and the impact thereof. At the very least, they should be aware of the magnitude of subsidies, the mechanisms through which they affect trade, the sustainability of resources and economic development, and the impact subsidies have in these areas. The effect of subsidies is determined by the performance of those who receive them. Information on their responses can contribute to a better understanding of the implications of subsidies for trade, resources and development. The future work of FAO in this field will be aimed, among other things, at determining the extent of the impact of subsidies.

Action suggested for the Commission

24. It is suggested that the Commission should take note of this paper, add pertinent information on action taken at the national and/or regional level, and consider and comment on the issues raised herein.

Table 1. Captures by origin. WECAFC countries (mt)
Selected years (1990-1995-1999)

	Continental waters			Western Central Atlantic			Other maritime zones		
	90	**95**	**99**	**90**	**95**	**99**	**90**	**95**	**99**
North America	**152513**	**158708**	**127875**	**1215646**	**1128932**	**1229474**	**5677045**	**5390918**	**470916**
USA	36825	36688	36413	874296	856754	943641	4709284	4405465	385123
Mexico	115688	122020	91462	341350	272178	285833	967761	985453	85793
Central America	**3110**	**5907**	**10670**	**6481**	**14680**	**17213**	**160262**	**245560**	**19704**
Belize	1	0	0	1413	1229	1185	0	487	3875
Costa Rica	300	1087	2465	370f	418	724	16310	19688	2249
Guatemala	2599	4025	6976	100	390	292	4195	3838	376
Honduras	45	127	102	3405	6686	1865	8338	14148	524
Nicaragua	150	538	1120	1193	5957	13127	1745	4500	632
Panama	15	130	7	-	-	20	129674	202899	12047
Greater Antilles	**17563**	**12003**	**6291**	**92232**	**83223**	**74002**	**104419**	**21265**	**1115**
Cuba	15143	8893	4624	59333	49956	51533	104419	21265	1115
Haiti	350f	500f	500f	4800f	5017f	4500f			
Jamaica	450f	450f	450f	8000	9917f	8058			
Puerto Rico	0	0	0	1949	2516	2107			
Dominican Rep.	1620f	2160	717	18150f	15817	7804			
Lesser Antilles and others	**0**	**0**	**0**	**41919**	**51735**	**56119**	**9608**	**71**	**1454**
Antigua and Barbuda	0	0	0	885	1429	3185			
Anguilla	0	0	0	350	150f	250f			
Netherlands Antilles	0	0	0	1210f	1020f	900f			

Aruba	0	0	0	420f	130	175			
Bahamas	0	0	0	7498	9557	10473			
Barbados	0	0	0	2967	3539	3206			
Bermuda	0	0	0	463	449	458			
Dominica	0	0	0	458	950	1200f			
Grenada	0	0	0	1778	1487	1631			
Guadeloupe	0	0	0	8600	9500	9150f			
Cayman Islands	0	0	0	110f	125	125	727	0	
Virgin Is. (USA)	0	0	0	684	800f	800f			
Virgin Is. (UK)	0	0	0	624	532	115			
Martinique	0	0	0	3498	5300	5000f			
Montserrat	0	0	0	15	48	50f			
St. Kitts and Nevis	0	0	0	620f	192	352			
St. Lucia	0	0	0	931	1188	1718			
St. Vincent and the Grenadines	0	0	0	1298	944	1031	8881	71	1454
Trinidad and Tobago	0	0	0	8574	13000f	15000f			
Turks and Caicos	0	0	0	936	1395f	1300f			
South America	**244832**	**271581**	**240038**	**316516**	**476580**	**380465**	**725455**	**649162**	**63882**
Brazil *	191115f	193042	175000f				590035	513666	48000
Colombia	33940	23524	28788	8356	15539	2994	75170	81636	8616
Guyana	800	700f	603	36072	47200f	53241			
French Guiana	0	0	0	6465	8089	7700f			
Suriname	350f	140f	200f	6150f	12860f	12760f			
Venezuela	18627	54175	35447	259473	392892	303770	60250	53860	7266
OVERALL TOTAL	**418018**	**448199**	**384874**	**1672194**	**1755150**	**1757273**	**6676789**	**6306976**	**557073**

0= more than zero but less than half the unit used. F= FAO estimate based on available information

* No separate data available on Brazilian captures in the WECAFC region.

Source: Based on data from the FAO Yearbook of Fishery Statistics 1999 (Capture Production). Vol. 88/1

Table 2 – WESTERN CENTRAL ATLANTIC COUNTRIES – Fish and fishery products –Apparent consumption

Average 1997-99 (mt live weight) 1997-99

	Production	Non-food uses	Imports	Exports	Food supply	Population (thousands)	Per capita supply
North America	**6599688**	**1377524**	**2923930**	**1377046**	**6788154**	**373351**	**18.2**
USA	5268074	1113010	2878328	1180359	5872138	277534	21.2
Mexico	1331614	264514	45602	196687	916016	95817	9.6
Central America	**281595**	**137392**	**63722**	**113583**	**95827**	**28536**	**3.4**
Belize	24583	20533	493	1835	2711	217	12.5
Costa Rica	31972	1500	33497	44527	20582	3841	5.4
Guatemala	13717	8	5831	4083	15457	10803	1.4
Honduras	18141	3	7529	12938	12729	6099	2.1
Nicaragua	23025	5	5060	13674	14412	4809	3.0
Panama	170156	115342	11313	36525	29935	2767	10.8
Greater Antilles	**150164**	**452**	**144780**	**19616**	**275210**	**29639**	**9.3**
Cuba	121740	445	37449	14114	144962	11114	13.0
Haiti	5187	0	17860	410	22639	7891	2.9
Jamaica	11425	7	31520	3250	39688	2534	15.7
Dominican Rep.	11812	0	57951	1841	67921	8101	8.4
Lesser Antilles and others	**57473**	**18148**	**33230**	**16748**	**55906**	**2930**	**19.1**
Anguilla	250	0	0	0	250	11	23.4
Antigua and Barbuda	3145	1167	1262	136	3105	64	48.3
Netherlands Antilles	905	0	3234	508	3632	212	17.2
Aruba	187	0	3975	39	4146	94	44.1
Bahamas	10346	17	2883	6743	6469	296	21.9
Barbados	3184	2	5197	333	8047	266	30.3
Bermuda	461	0	1808	0	2269	62	36.4
Dominica	1169	0	1183	0	2351	71	33.1
Grenada	1584	6	1687	1243	2023	93	21.8
Guadeloupe*	9319	1	10443	18	19743	424	46.5
Cayman Is.	125	0	140	119	221	36	6.2
Virgin Is. (UK)	112	0	0	0	112	22	5.0
Virgin Is. (US)	800	0	0	0	800	118	6.8
Martinique*	4869	2	12927	47.0	17747	379	46.9
Montserrat	47	0	0	0	47	6	7.4
St. Kitts and Nevis	329	0	564	9	885	39	22.7
St. Lucia	1450	0	2509	5	3953	144	27.4
St. Vincent and the Grenadines	18519	16933	872	249	2208	112	19.7
Trinidad and Tobago	14860	23	7917	7365	15389	1283	12.0
South America	**1525695**	**80493**	**497932**	**197232**	**1765466**	**231171**	**7.6**
Brazil	805904	75015	375476	42016	1083396	166073	6.5
Colombia	180440	0	91798	91833	180421	40689	4.4
Guyana	53953	0	575	8209	46719	754	62.0
French Guiana*	7762.0	0	2406.0	5010	5298	147	36.1
Suriname	13044	0	2337	5963	9419	414	22.8
Venezuela	472355	5478	27746	49210	445512	23242	19.2
OVERALL TOTAL	**8614615**	**1614008**	**3663594**	**1724224**	**8980563**	**665627**	**13.5**

0= more than zero but less than half the unit used.

= no data available – Source: FAO, Yearbook of Fishery Statistics 1999 (Capture Production). Vol. 87.

* These figures represent the average for 1994-1996; current figures are not available owing to changes in records in the country concerned. They are included for purposes of illustration, but are not counted in the total.

Table 3 – Imports and Exports of WECAFC countries -1996-1999
(millions of dollars)

	Imports				Exports			
	96	**97**	**98**	**99**	**96**	**97**	**98**	**99**
North America	**7162131**	**8252436**	**8676234**	**9533030**	**3886838**	**3675444**	**3118817**	**3594801**
United States	7080411	8138840	8578766	9407307	3147858	2850311	2400338	2945014
Mexico	81720	113596	97468	125723	738980	825133	718479	649787
Central America	**54324**	**79519**	**80199**	**71650**	**512796**	**582307**	**675053**	**568333**
Belize	740	789	1729	1724f	12427	17933	20168	21163f
Costa Rica	27485	47868	36929	25359	215852	259064	262472	148321
Guatemala	3866	6212	7819	6794	27518	16213	26407	28148
Honduras	6153	9313	13728	14805	63289	50350	71983	97207f
Nicaragua	1805	2278	4386	7843	78305	76250	54936	78596
Panama	14275	13059	15608	15125	115405	162497	239087	194898
Greater Antilles	**113402**	**99158**	**112576**	**116063**	**160821**	**125345**	**126719**	**117165**
Cuba	21951	16692	23985	22484	130334	97643	98012	93296
Haiti	4099f	6709f	8323f	7990f	4169f	11064f	14167f	9264f
Jamaica	50729	28064f	29138f	32487f	25705	14835f	13416f	13905f
Dominican Rep.	36623f	47693	51130f	53102f	613f	1803f	1124f	700f
Lesser Antilles and others	**125661**	**106630**	**93008**	**70232**	**89825**	**90286**	**87637**	**96919**
Antigua and Barbuda	1851f	2378f	1786f	2373f	1215	1014	606	644f
Netherlands Antilles	4106f	5728f	3505f	6380f	1077f	833f	938f	1198f
Aruba	16192	16757	17561	17753f	...	599f	...	...
Bahamas	7510f	8757	4471	4400f	55760	60660	59635	69591f
Barbados	7633	9505	6023	11044	637	1536	1260	951
Bermuda	5677f	7213f	6369f	7569f	-	-	-	-
Dominica	1676	1371	2102f	1595f	-	-	-	-
Grenada	2214	2195	2394	2534	3097	4293	3704	3530
Guadeloupe	24228f	...	...	...	187f	...	...	...
Cayman Is.	1135f	463f	665f	641f	10943f	6769f	4676f	4693f
Martinique	38700f	38200f	33700f	…	192f	…	…	…
St. Kitts and Nevis	2170	2305	875f	729f	119	69	13f	…
St. Lucia	4922	4205	4830	5186	-	0	13	-
St. Vincent and the Grenadines	1067	1031	954f	1537	447f	664	928f	927
Trinidad and Tobago	6343	6467	7489	8009	11812	10183	12442	12315
Turks and Caicos	237f	55f	284f	482f	4339f	3666f	3422f	3070f
South America	**625552**	**623538**	**609335**	**405320**	**489691**	**498329**	**463242**	**502121**
Brazil	481550	483598	455250	289808	133876	126477	122831	138232
Colombia	113986	110782	111243	71028	203413	217843	209699	183668
Guyana	2099f	407f	718f	475f	19531	28290f	33771f	34461f
French Guiana	5441f	...	...	...	41360	...	...	...
Suriname	5055	5075	2579	3600f	7420	11199	4251	11640f
Venezuela	17421	23676	39545	40409	84091	114520	92690	134120
TOTAL	**8081070**	**9161281**	**9571352**	**10196295**	**5139971**	**4971711**	**4471468**	**4879339**

F: FAO estimate based on available information;…: separate data not available, but included under another statistical heading; - : specified in the original source as “none” o ¨negligible ¨ with no further indication as to magnitude. Source: FAO, Yearbook of Fishery Statistics 1999 (Capture Production). Vol. 89.