

1. FISHING PORTS AND FISHERMEN  
 2. FISHING GROUNDS  
 CATCHES BY FISHING AREAS  
 3. CATCHES BY REGION OF SEA AND CATCHES OF INLAND WATER FISHERIES  
 YIELD OF CULTURES

1. Fishing Ports and Fishermen

The number of designated fishing ports in Japan was 2,924 as of December 31, 1986. They are classified as follows: 2,203 (including 38 inland water ports) were fishing ports of type 1, 519 were fishing ports of type 2, 109 (including 13 ports of special type 3) were fishing ports of type 3, and 93 were fishing ports of type 4.

There were 313,168 fishing boats registered and belonging to fishing ports, with a total tonnage of 1,471,909 tons. Of these, 303,102 were powered fishing boats (1,460,684 tons in total) and 10,066 were non-powered boats (11,225 tons in total). The number of fishing boats has increased by 16.9% during the last decade; however, 87.6% of the vessels newly added were vessels of less than 5 tons, explaining why the total tonnage has only increased by 3.9%.

The following are the total number of times vessels used fishing ports: 70,366,365 vessels (207,139,923 tons) used the type 1 fishing ports, 45,363,438 vessels (202,299,017 tons) used type 2 fishing ports, 14,832,424 vessels (165,135,819 tons) used type 3 fishing ports and 6,943,973 vessels (41,614,308 tons) used type 4 fishing ports. In all, 137,506,200 vessels (616,189,067 tons) called at fishing ports.

The number of persons engaged in fishing was 446,536 as of November 1, 1983. Of these, 64.5% were engaged only in self-employed fishing, 28.8% were engaged in fishing only as employees and 6.7% of them were engaged in both types of fishing. Of these, 82.5% were men and 17.5% women. Of these men, 30.3% were 15-39 years old, 52.3% were 40-59 years old and 17.5% were aged 60 years or more. The number of persons engaged in the fishing industry is declining due to a reduction in fishing, etc., caused by the reinforcement of international regulations on fishing, deterioration of fishery management, and so on. Workers are, at the same time, growing older.

[Salient Points of the Legend and Map Compilation]

All the fishing ports of types 2, 3 and 4 are indicated; however, ports which were used by boats weighing less than 300,000 tons in total annually were excluded from type 1 fishing ports.

Persons engaged in fishing refers only to those who work at sea. This map indicates those who engaged in sea fishing for 30 days or more in the year preceding the survey date.

2. Fishing Grounds

In 1986 Japan fished in fishing grounds abroad under multilateral and bilateral agreements.

The following are the main multilateral agreements Japan is party to as of 1986: The Fisheries Treaty of Japan, USA and Canada (concluded in 1953), the Treaty for the Conservation of Tuna in the Atlantic (concluded in 1969) and the Treaty on Fishing in the southeast Atlantic (concluded in 1971). Japan is also party to the following bilateral agreements: Fisheries Agreement of Japan and USA (1983), Agreement of Japan and the Soviet Union Concerning Fishing off the Coast of Both Countries (1984) and Agreement of Japan and the Soviet Union Concerning Fisheries Cooperation (1985).

Fishing grounds for the main types of fish are as follows: tuna can be caught in many areas such as the sea near Japan, the eastern central Pacific, off Chagos in the western part of the Indian Ocean, and off the coast of Angola in the south-east Atlantic. The two main fishing grounds for Alaska pollacks are the Kamchatka Peninsula and Aleutian Islands in the Northern Pacific. The main fishing grounds for skipjacks are in the sea near Japan and in the center of the Pacific. As for squid, the sea near Japan, the sea off the coast of Argentina, which is the south-western Atlantic, and the sea off the coast of New Zealand, which is the south-western Pacific, are the main fishing grounds. On the other hand, most saury are caught in the sea near Japan.

The Japanese fishing industry finds itself in a difficult international situation. Japan is being forced to reduce fishing because of a drastic cut in the amount of

fishing quotas and reinforcement of fishing regulations.

2. Catches by Fishing Areas

In 1986 the catches (production) of the Japanese fishing industry and aquaculture amounted to 12,738,926 tons. This accounted for approximately 13% of the total catches in the world. Catches increased by 20% from those of a decade before. As for the catches of each species, catches of Alaska pollack decreased because of the establishment of the 200 nautical mile fishery conservation zone, while catches of sardines greatly increased due to the development of large and medium surrounding net and ranked highest. Regarding the fishing zone, 88% of the total catches were caught in the northwest Pacific, while 96% were caught in the 6 fishing areas in the Pacific.

In 1986, ¥2,718,190 million was earned by fishery production, showing an increase of 20%.

Imports of marine products increase every year and accounted for 25% of the total food products distributed domestically.

[Salient Points of the Legend and Map Compilation]

Whale-catching decreased because stronger restrictions were enforced. Whale-catching for commercial purposes was suspended in the Antarctic Ocean in April 1987, while that in the sea along the coast was also suspended in March 1988. In 1986, 2,840 whales were caught, accounting for ¥12,260 million in 1986.

3. Catches by Region of Sea and Catches of Inland Water Fisheries

The catches of sea fisheries in 1986 were 11,340,726 tons. Considering the ratio by division, 20.6% were deep-sea fisheries, 59.9% were off-shore fisheries and 19.5% were coastal fisheries. As for the catches by prefecture, Hokkaido, with 1,874,947 tons, ranked highest; followed by Ibaraki with 1,119,426 tons; Tokyo with 844,490 tons; Nagasaki with 843,752 tons and Miyagi with 684,291 tons. Regarding the species of fish, 37.1% of the catches, the largest, were sardines; 12.5% were Alaska pollacks and 8.3% were mackerel. Thus, these three species accounted for the majority of the catches.

The catches from inland waters totaled 106,242 tons. Of these 59.6% were caught in rivers and 40.4% in lakes and marshes. As for the species, catches of corbiculas were greatest, accounted for 27.4% of the total catches, followed by

sweet fish with 15.4%, salmon with 8.9% and crucian carp with 7.5%.

[Salient Points of the Legend and Map Compilation]

Among 2,217 fishing areas in Japan, the areas whose catches exceeded 10,000 tons are indicated as fishing ports.

Catches in the sea were based on statistics for the region of the fishery management units to which fishing units (operating units) for sea fisheries belong.

Sea fisheries refers to operations for catching marine animals and plants in the sea. Inland water fisheries means operations for catching aquatic animals and plants in public rivers, lakes, marshes, reservoirs and ponds.

3. Yield of Cultures.

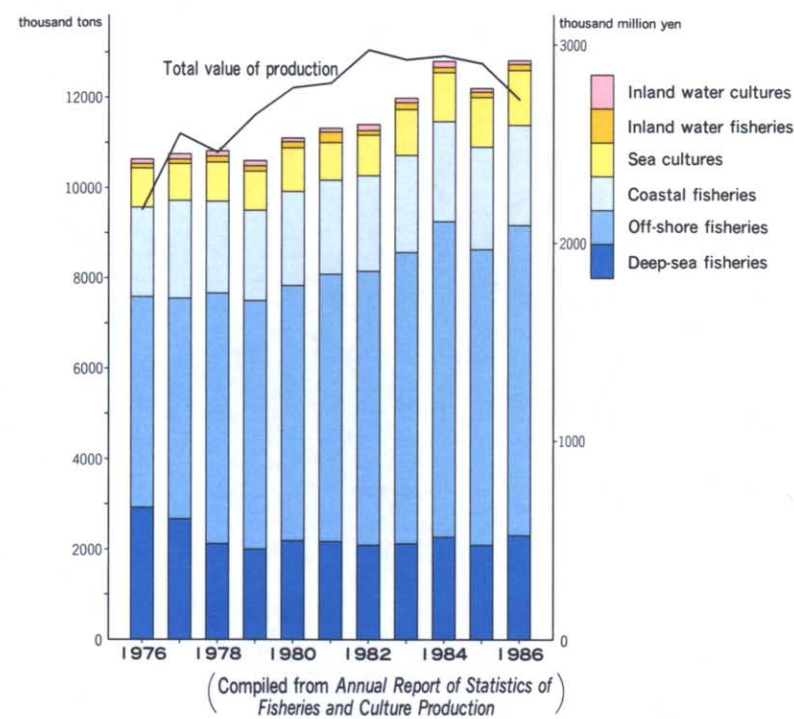
In 1986, the yield of sea cultures was 1,198,271 tons. Hiroshima was the prefecture with the greatest production at 164,394 tons, followed by Hokkaido with 122,210 tons, Miyagi with 118,670 tons and Iwate with 83,216 tons. Regarding the kinds of products, 33.6% (the largest in ratio) of the production was accounted for by "Nori" seaweeds, 21.0% by oysters, 12.2% by yellowtails and 11.7% by scallops. The yield increased by 40% during the decade from 1976 to 1986. However, the number of management groups operating aquaculture in the sea decreased by 24.4%.

The yield of inland water cultures was 93,687 tons. Considering the production by prefecture, Sizuoka with 13,211 tons, ranked highest, followed by Aichi with 11,337 tons, Kagosima with 8,417 tons and Nagano with 6,606 tons. As for types of products, most were fish with 39.0% (the largest in ratio) of the production being accounted for by eels, 19.1% by common carp, 18.1% by rainbow trout and 12.2% by sweet fish. These four kinds of fish accounted for the majority of production.

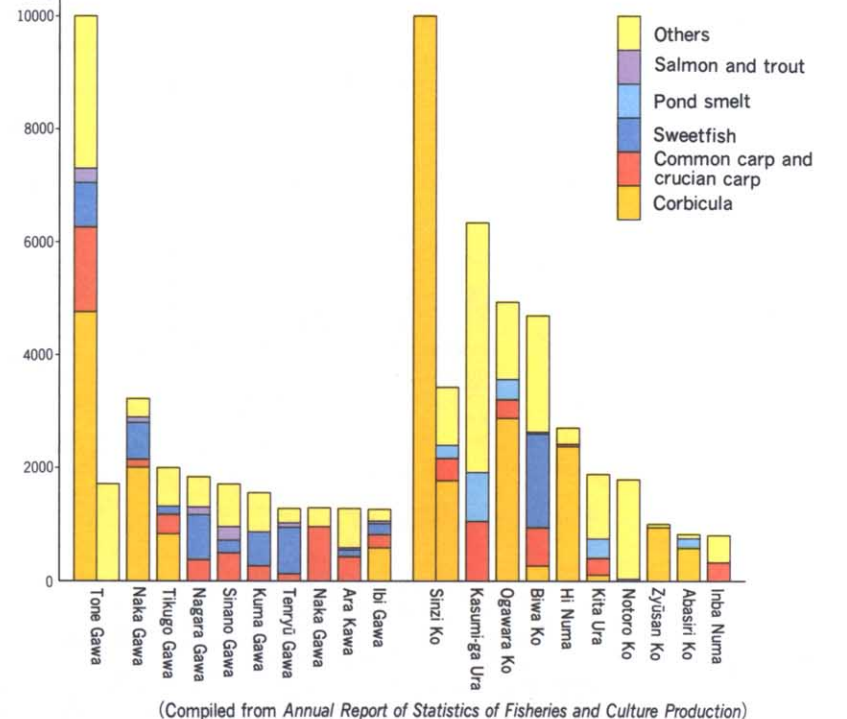
[Sources]

1. Ministry of Agriculture, Forestry and Fisheries, *Fishing Port Statistics of Japan*, 1986
2. Ministry of Agriculture, Forestry and Fisheries, *7th Census of Fishery*, 1983
3. Data from the Fishery Agency
4. FAO, *Yearbook of Fishery Statistics*, 1986
5. Ministry of Agriculture, Forestry and Fisheries, *Annual Report of Statistics of Fisheries and Culture Production*, 1986
6. Ministry of Agriculture, Forestry and Fisheries, *Annual Report on Statistics of Fishery Products Marketing*, 1986

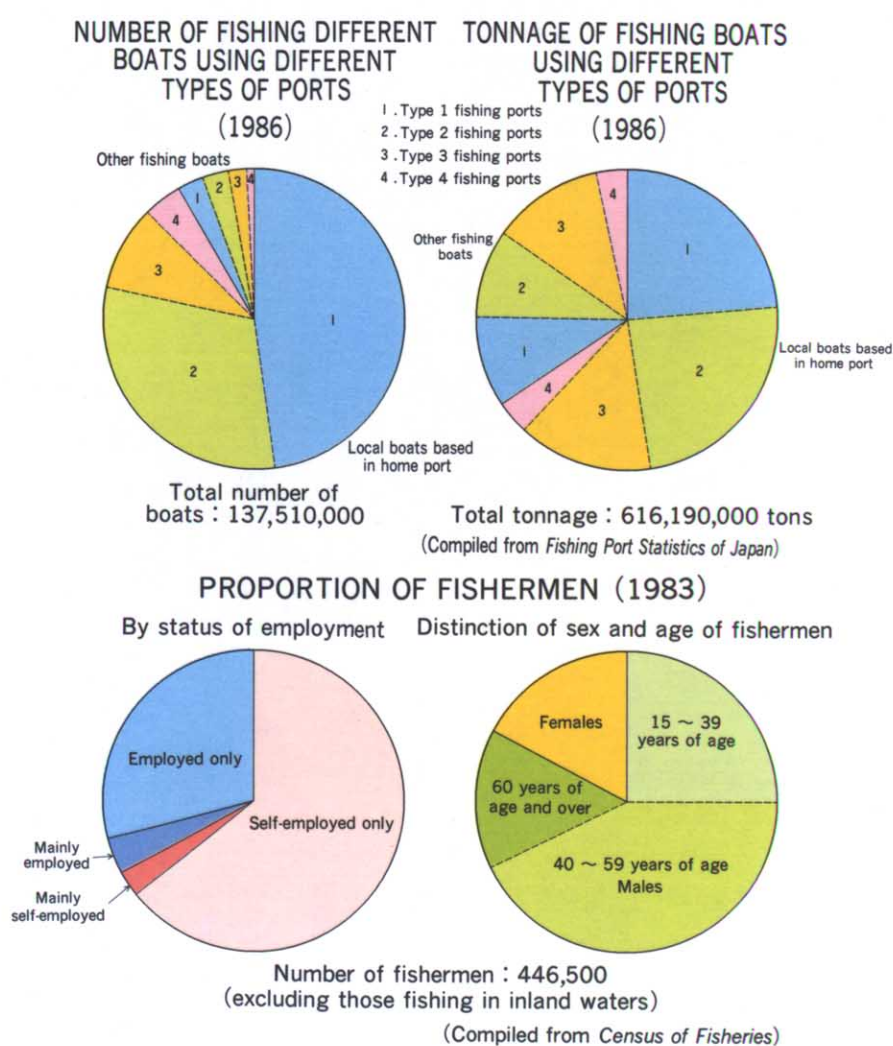
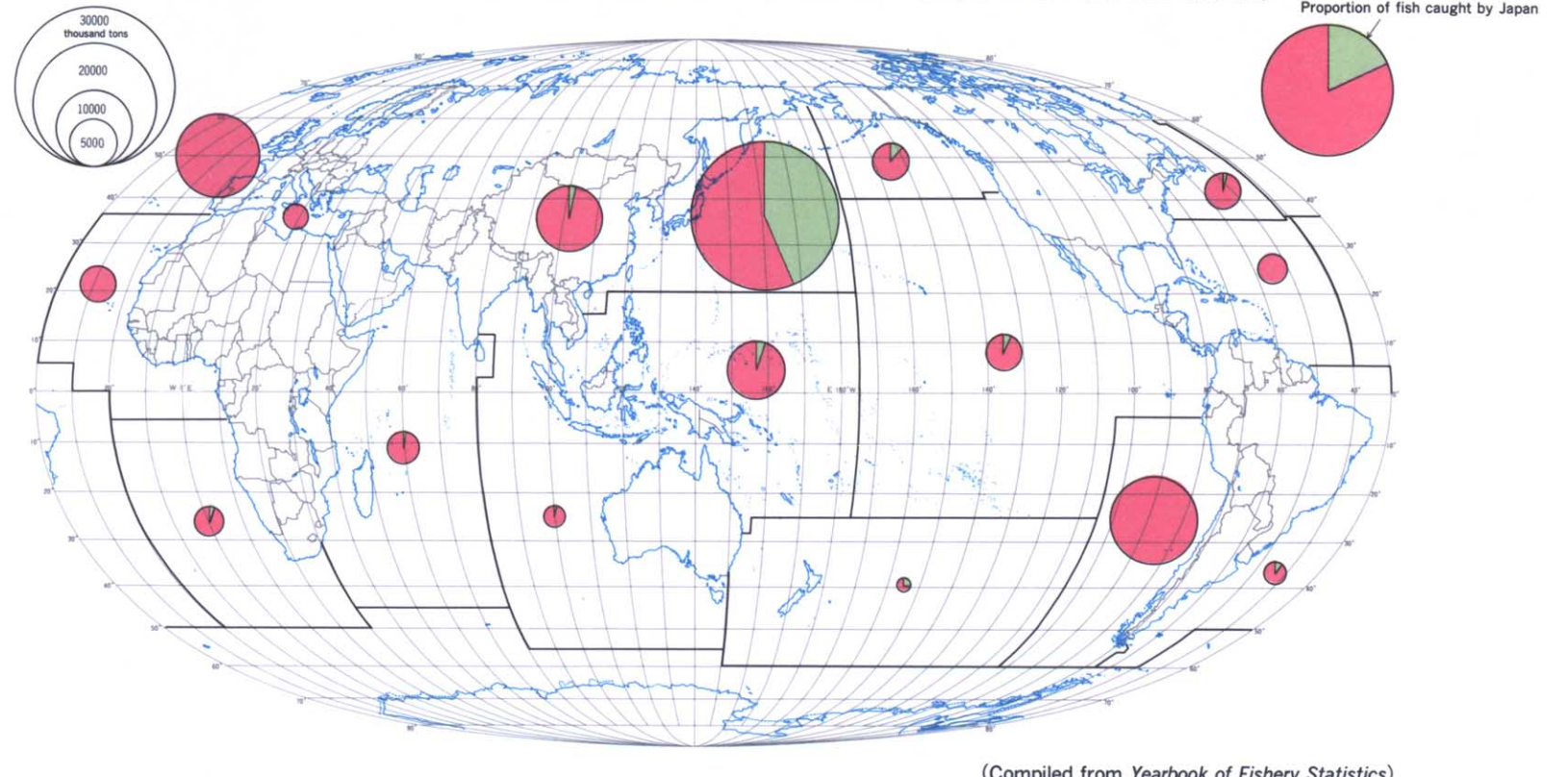
CHANGES IN THE TOTAL AMOUNT OF PRODUCTION AND VALUE OF FISHING AND CULTURES



CATCHES OF FISH FROM MAJOR RIVERS AND LAKES (1986)



CATCHES IN MAJOR FISHING GROUNDS AND PROPORTION CAUGHT BY JAPAN (1986)



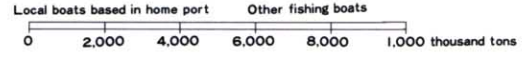
**FISHING PORTS AND FISHERMEN**

(1986)

**FISHING PORTS**

- Type 1 fishing ports
- ◇ Type 2 fishing ports
- Type 3 fishing ports
- △ Type 4 fishing ports

**TOTAL TONNAGE OF FISHING BOATS USING THE PORTS IN A YEAR**  
(Boats over 300 thousand tons are represented)



**AVERAGE TONNAGE OF FISHING BOATS**

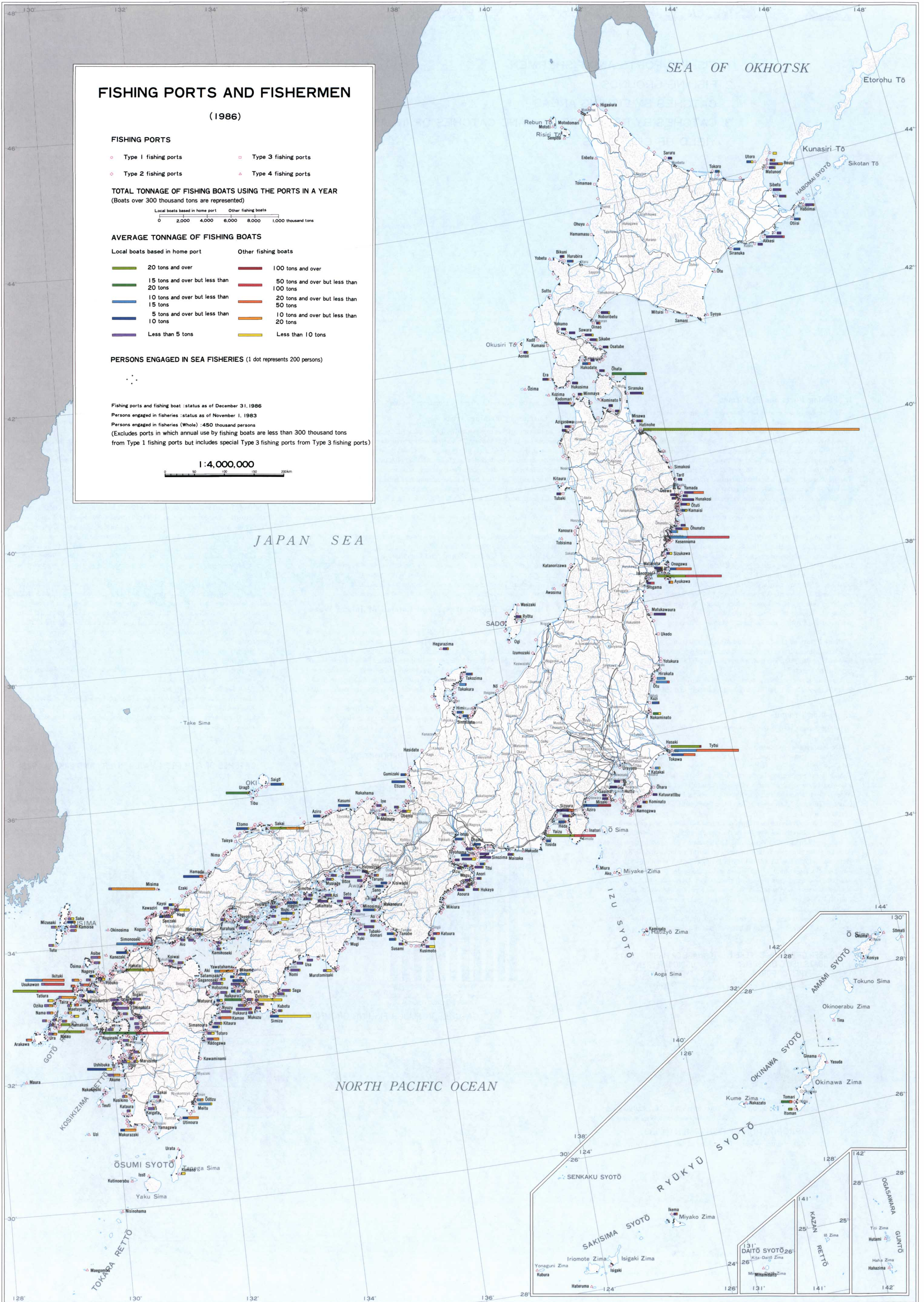
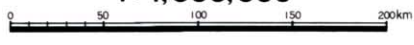
- | Local boats based in home port           | Other fishing boats                       |
|------------------------------------------|-------------------------------------------|
| ■ 20 tons and over                       | ■ 100 tons and over                       |
| ■ 15 tons and over but less than 20 tons | ■ 50 tons and over but less than 100 tons |
| ■ 10 tons and over but less than 15 tons | ■ 20 tons and over but less than 50 tons  |
| ■ 5 tons and over but less than 10 tons  | ■ 10 tons and over but less than 20 tons  |
| ■ Less than 5 tons                       | ■ Less than 10 tons                       |

**PERSONS ENGAGED IN SEA FISHERIES** (1 dot represents 200 persons)



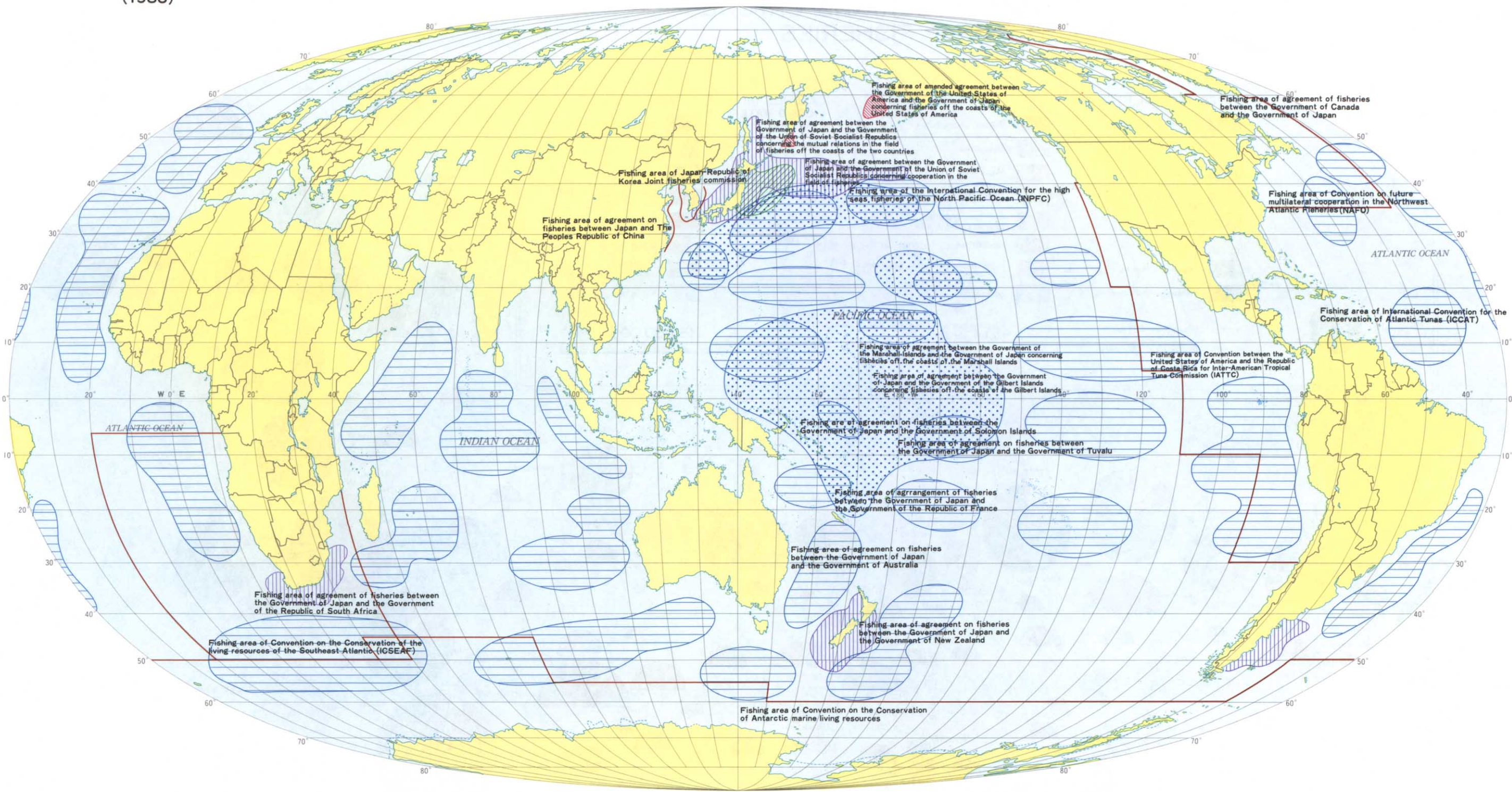
Fishing ports and fishing boat : status as of December 31, 1986  
 Persons engaged in fisheries : status as of November 1, 1983  
 Persons engaged in fisheries (Whole) : 450 thousand persons  
 (Excludes ports in which annual use by fishing boats are less than 300 thousand tons from Type 1 fishing ports but includes special Type 3 fishing ports from Type 3 fishing ports)

1:4,000,000



FISHING GROUNDS

(1986)



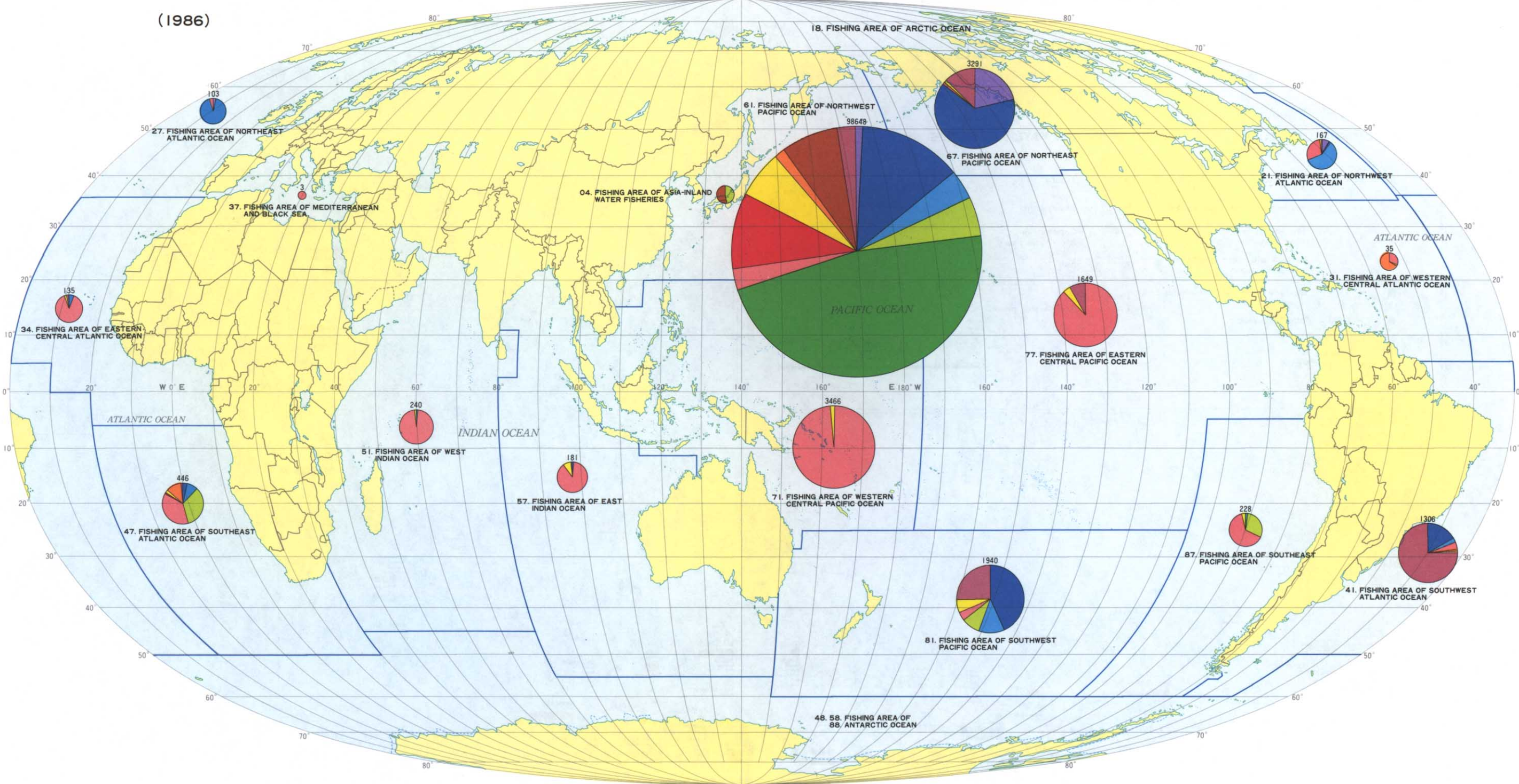
**FISHING GROUNDS OF PRINCIPAL FISHES**

	Tuna		Alaska pollock		Fishing areas to which international fishery agreements apply
	Skipjack		Squid		
	Saury				

1:110,000,000  
0 1000 2000 3000 4000 5000 km

CATCHES BY FISHING AREAS

(1986)



**CATCHES**

(in 100 tons)

5000  
2500  
500  
50

**TYPES OF FISH**

	Flounders and halibuts		Mackerels		Boundary of fishing areas
	Cods and Alaska pollacks		Rays, skates and sharks, miscellaneous marine fishes		Number of fishing areas
	Redfishes, etc.		Crabs, shrimps, prawns and lobsters		
	Jacks, etc.		Shell-fishes		
	Herrings and sardines		Squids and octopuses		
	Skipjacks and tunas				

1:110,000,000  
0 1000 2000 3000 4000 5000 km

27.3

