FISHERY AND AQUACULTURE COUNTRY PROFILES	Food and Agriculture Organization of the United Nations	FID/CP/JPN
PROFILS DES PÊCHES ET DE L'AQUACULTURE PAR PAYS	Organisation des Nations Unies pour l'alimentation et l'agriculture	May 2009
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NATIONAL FISHERY SECTOR OVERVIEW

JAPAN

1. GENERAL GEOGRAPHIC AND ECONOMIC DATA

Area:	377 801 km²
Shelf area:	approximately 233 000 km²
Length of continental coastline:	approximately 29 751 km
Exclusive Economic Zone:	approximately 4 050 000 km²
Population (2008):	127.7 million
GDP at purchaser's value (2006):	4.4 trillion USD
GDP per head (2006):	34 252 USD
Gross value of agricultural output (2006)	1.5% of GDP
Agricultural GDP (2006):	64 billion USD*
Fisheries GDP (year):	-

* Exchange rate applied: USD 1 = 116 JPY

2. FISHERIES DATA

2005	Production	Imports	Exports	Total Supply	Per Caput Supply
	'000 tonnes live weight				kg/year
Fish for direct human consumption	3 956	4 409	535	7 830	61.2
Fish for animal feed and other purposes	863	1 466	64	2 265	

Estimated Employment (2006):	
Coastal fishery:	185 130
Offshore and distant water fishery:	27 340
Gross value of fisheries output (2005):	USD 12 368 million
Trade (2007):	
Value of fisheries imports:	USD 13 184 million
Value of fisheries exports:	USD 1 663 million

3. STRUCTURE AND CHARACTERISTICS OF THE FISHERY SECTOR

3.1 Marine fisheries

Japan is an island nation with a population of 128 million, a land area of 377 801 km², a coastline of 29 751 km, and an EEZ of approximately 4.05 million km², the sixth largest in the world and about twelve times larger than the national land area. A combination of warm and cold currents flows along the coasts, creating one of the most abundant fishing grounds in the world.

Due to such geographical features, fisheries traditionally play an important role in food security in Japan, providing a variety of fish and fishery products which account for 61.2 kg *per capita* annual intake of the Japanese nation in 2005. The total fishery production of Japan was 5 million tonnes (excluding seaweed) in 2007, out of which 766 000 tonnes were derived from aquaculture. Japan was the fifth largest capture fishery producer in the world in 2007.

For statistical convenience, Japanese marine fisheries are divided into three categories: distant-water fisheries (operated mainly on the high seas, as well as under bilateral agreements in the EEZs of foreign countries); offshore fisheries (operated mainly in the domestic EEZ, as well as under bilateral agreements in the EEZs of neighbouring countries); and coastal fisheries (operated mainly in waters adjacent to fishing villages).

Of the three categories, distant-water fisheries and offshore fisheries have been declining: the former yielded 518 000 t (worth JPY 153 900 million or about USD 1 620 million[1]), and the latter yielded 2 500 000 t (worth JPY 399 600 million or about USD 4 206 million) in 2006. In contrast, coastal fisheries have maintained a stable supply of marine products, yielding 1 451 000 t (worth JPY 524 800 million or about USD 5 524 million) in 2006

In terms of the number of workers, coastal fisheries dominate, with about 212 470 people involved, or 89% of the total (239 810) in 2006. In 2007, the total number of fishers was 204 330, continuing to decline as a consequence of the acceleration of the ageing of fishers. The total number of powered fishing vessels registered was 232 534 (2005).

3.2 Mariculture

Mariculture plays an important role in seafood supply, producing 1 237 000 t in 2007 (worth about USD 3 836 million). The main products from mariculture are seaweeds (42%, mostly destined for human consumption), Yesso scallops (20%), oysters (16%), Japanese amberjack (13%) and silver seabream (5%). Production has been broadly flat for the last 10 years, after reaching a peak in 1994. This is due to the limited capacity of farms, the decreasing fish price and the excessive supply of cultured fish.

3.3 Inland fisheries and aquaculture

Japanese rivers and lakes are so narrow that the scale of inland water fishing resources is quite limited. Nevertheless, inland waters play an important role in providing various freshwater fish and shellfish, such as *ayu* sweetfish, *Plecoglossus altivelis*, providing not only opportunities for commercial fisheries but also for recreational fishing, to commune with nature, and preserve the natural environment. Production of inland fisheries and inland aquaculture was 81 000 t in 2007 (39 000 t and 42 000 t respectively). The main products from inland fisheries are Salmonoids (42%), corbicula clam (28%) and ayu sweetfish (8%), while the main species for inland aquaculture are eels (54%), trout (26%), ayu sweetfish (14%) and common carp (6%).

[1] Exchange rate applied: 1 USD = 95 JPY

However, inland waters are currently suffering fishery- and ecosystem-related damage due to predation of indigenous fish species by black bass and other alien species. Under such circumstances, the Invasive Alien Species Act was established for the purpose of regulating the raising, carrying or importing of designated invasive alien species and to eliminate such species. Currently, 13 Species of fish and four species of invertebrate are listed as specified alien species.

(see also http://www.fao.org/fishery/countrysector/naso_japan/en)

3.4 Management applied to main fisheries

The management of fisheries in Japan has been implemented by the fisheries right system for coastal fisheries and the fisheries licensing system for offshore and distant-water fisheries, based on the Fisheries Law. Both systems are input control (fishing efforts), such as control of the number of fishers or fishing vessels and regulation of fishing gear, areas and seasons. Following the ratification of the United Nations Convention on the Law of the Sea (UNCLOS) in 1996, Japan introduced the Total Allowable Catch (TAC) system in 1997 as output (catch) control according to the Law Concerning Conservation and Management of Living Marine Resources. Currently, seven species, namely saury, Alaska pollack, sardine, jack mackerel, common and spotted mackerel, common squid and snow crab, are subject to the TAC system. Japan also introduced the Total Allowable Effort (TAE) system, which further reinforces the input control by regulating the total level of fishing effort such as total days of fishing operations. The combination of the input and output control is expected to promote sustainable fisheries. Regarding offshore waters, representatives of the various types of fisheries involved are now required to form “Regional Fisheries Coordination Committees” that will elaborate, in consultation with the national and prefectural governments, the Resources Recovery Plans in which various kinds of conservation and management measures including TAC and TAE will be implemented in a coordinated manner. In coastal waters, “Resources Management-Type Fisheries” are promoted by a co-management system between coastal fishers and prefecture governments. Fisheries cooperatives play a vital and essential role in this process for securing responsible and sustainable fisheries.

To prevent, deter and eliminate IUU fishing and uncontrolled importation of their catch, the “Law of Special Measures for Strengthening Conservation and Management of Tuna Resources” was established in 1996 and has been controlling trade of tunas caught by IUU and reflagged fishing vessels. Furthermore, the Organization for the Promotion of Responsible Tuna Fisheries (OPRT) was established in 2000 as an initiative taken by the tuna industries to combat IUU fishing.

4. POST-HARVEST USE

4.1 Utilization of the catch

In 2006, 86% or 4 360 000 t of the Japanese domestic fishery production was destined to human consumption, while the rest, 710 000 t, was destined for industrial use, including fishmeal to meet the demand for feeds for livestock and aquaculture purposes. 16% or 790 000 t of the domestic fishery production was exported. 65% or 3 710 000 t of annual Japanese imports of fish and fishery products was used for human consumption. In total, domestic supply of fish and fishery products in Japan was 9 820 000 t and 75% or 7 358 000 t was destined to human consumption. Domestic production supported about 59 percent of national consumption of fish and fishery products in 2006. Among those for human domestic consumption, 40 percent or 2 946 000 t are fresh or frozen products, 55 percent or 4 078 000 t are salted, dried, smoked, etc, and 5 percent or 334 000 t are canned products.

4.2 Marketing and distribution

Based on traditional fish-eating culture, in particular with appreciation for absolutely fresh raw fish, Japan established a unique marketing and distribution system of fish and fishery products with a network of fish markets in landing sites and those in consumption centers. However, many of local fish markets are in economic difficulties due to reduced turnover as catches have

declined in both volume and value and merging and reinforcement of those markets is underway.

The Wholesale Market Law was revised in June 2004 to promote a safer, more reliable and effective distribution system that meets consumer needs while reflecting relevant socio-economic changes. In relation to quality control of fish and fishery products, with the aim of meeting consumers' higher awareness of freshness and safety of food, the Japanese Agricultural Standard (JAS) Law was revised in 1999 to require appropriate labelling of all food products. The labelling of fish and fishery products has to include description of fishing area for fresh fish and materials used for the processed fishery products. The first accreditation to a Japanese fisheries importer by the Marine Stewardship Council (MSC), an International NGO, was reported in 2006. A new certification scheme, "Marine Eco-Label Japan (MEL-Japan)" was established on 6 December 2007 mainly by Japan Fisheries Association (JFA) in collaboration with the national Government, other relevant organizations and an academic society based on the FAO Guidelines for the Ecolabelling of Fish and Fishery Products from Marine Capture Fisheries. Generally FAO's technical guidance and guidelines on ecolabelling are expected to facilitate an appropriate implementation of the ecolabelling system in the Japanese fisheries.

5. FISHERY SECTOR PERFORMANCE

5.1 Economic role of the fishing industry

Fisheries play an important role in food security in Japan and, being a primary industry in coastal areas, contribute significantly to regional economies. Being distributed countrywide, fishing communities make a vital contribution to the preservation of local traditional culture in the form of fish-eating habits, festivals, customs and manners.

As Japan is a country with limited agronomic and livestock-raising potential, marine products are an indispensable source of food for the large population, and in 2005 provided about 61.2 kg of fish on a crude food weight basis and to 34.6 kg on a net weight basis for direct human consumption per year per capita. Furthermore, this sector supports (2006) some 212 470 fishers, although the number of fishers is continuously decreasing and their average age continues rising. Fishing villages need revitalization to become more attractive to the young generation in order to secure an appropriate level of recruitment of new fishers and thus keep fishery industries and communities active and vital. Women fishery workers numbered 33 000 in 2007 or 16 percent of the total number of fishers, who are mainly engaged in coastal fisheries. At the end of 2006, Japan had 2 273 fisheries cooperative associations, including 1 267 for coastal regions, 864 for inland waters and 142 sector-specific associations.

5.2 Fish trade

In 2007, Japan was the second major importer of fishery commodities following China with USD 13.2 billion, 5.6 percent less than 2006 in value, while exports experienced a 17.9 percent growth to USD 1.7 billion. China has been the largest fishery product exporter to Japan since 1998, but imports from China in 2007 decreased by 13.2 percent in value terms from the previous year and reached JPY 318 billion (USD 3 billion). The main imported products are shrimp, tuna, salmon, crab, processed eel, cod's roe, squid, etc.

While importation has been declining, exportation of fish and fishery products from Japan has been increasing due to the popularity of Japanese dishes in the world and economic growth in Asia. The main exporting commodities in value are pearl, salmon, mackerel, dried sea cucumber, Alaskan Pollock, scallop, etc.

5.3 Research

In 2001, the National Research Institute of Fisheries Science became the Fisheries Research Agency (FRA) independent from the national Government and reinforced for comprehensive scientific research on fisheries. Stock enhancement and protection/ restoration of the aquatic environment are also promoted, mainly by the Japan Sea-Farming Association (JASFA) and prefectural sea-farming centers, by releasing billions of seedlings and the preservation of nursery areas such as sea grass or seaweed beds. In 2003, the FRA expanded also to take over the duties of JASFA and the Japan Marine Resource Research Center (JAMARC) for further enhanced and comprehensive research and stock enhancement activities.

Among various kinds of research activities conducted by those institutes, the following areas of technology are particularly highlighted:

- Energy saving
- Satellite vessel monitoring
- Enhancement of efficiency and profitability of fisheries
- Improvement of fishing grounds and nursery areas of aquatic living resources
- Promotion of stock enhancement and aquaculture including those of bluefin tunas
- Development and promotion of bioenergy

6. FISHERY SECTOR DEVELOPMENT

Development prospects in the near future are not bright in Japan. According to the results of a resource assessment on major fishery resources in the waters surrounding Japan, the levels of fishery resources are low for almost half of the species or stocks assessed. In addition, the decrease in the number of fishers and their increasing average age pose serious problems, affecting the production structure and closely linked to the sustainable use of fishery resources and the stable supply of fish.

On the other hand, however, due to the growing demand for fish and fishery products in the world, the exportation of those products from Japan is increasing. The multi-faced functions, other than just food security, of fisheries and fishing communities, such as conservation of natural environment, national security and promotion and succession of the traditional culture, are also highly recognized and appreciated.

Much effort and measures are being taken to recover and enhance fisheries resources such as the establishment of resource recovery plans as well as to vitalize fishing communities.

7. FISHERY SECTOR INSTITUTIONS

National level administration and management:

Ministry of Agriculture, Forestry and Fisheries
http://www.maff.go.jp

National research institutes in the fisheries sector:

Fisheries Research Agency
http://www.fra.affrc.go.jp/

8. GENERAL LEGAL FRAMEWORK

The main law that regulates fisheries and aquaculture activities in Japan is the Fisheries Law (1949, as revised in 1962). The Fisheries Cooperation Association Law (1948) provides the legal framework for fisheries cooperatives, which bear the responsibility for exercising the common fishery right and play the essential role for the Japanese community-base fisheries management. The Fisheries Resources Conservation Law (1951) provides the basic framework for conservation of fisheries resources in the coastal waters of Japan. In 2001, Japan established the Basic Law on Fisheries by renewal of the Promotion Law for Coastal Fisheries (1963). The new law seeks to secure sustainable utilization of fishery resources, stable supply of fish and fishery products for the nation and sound development of the Japanese fishing industries as a whole, including not only the fishing sector, but also the processing and distribution sectors. Improvement and revitalization of fishing communities is also included as one of the objectives of the new law and it is expected that more and younger people will be attracted to the fisheries communities and industries. The new Basic Plan for Fisheries was established in March 2007 by renewal of the first Basic Plan made in 2002 based on the Basic Law on Fisheries. One of the main objectives of the new Plan is to enhance stock status and promote international resource management. It also seeks to strengthen fisheries business management and vitalize fishery industries in order to secure sustainable and internationally competitive fisheries as well as stable supply of fish and fishery products for the nation.

Aquaculture in Japan is governed by the Fisheries Law as well, which prescribes the demarcated fishery right for aquaculture activities. In 1999, the Law to Ensure Sustainable Aquaculture Production was also established for securing sound and sustainable aquaculture production. The new law seeks to prevent the self-induced environmental deterioration around fish farms and the spread of fish diseases. Pursuant to this law, the national Government issued the Basic Guidelines to Ensure Sustainable Aquaculture Production, and fisheries cooperatives are expected to develop and implement “Aquaculture Ground Improvement Programmes” subject to approval by the prefectural authorities.
(see also http://www.fao.org/fishery/legalframework/nalo_japan/en)

In 2007 the Basic Act on Ocean Policy was established. This is the first act to cover comprehensively all aspects with regard to the oceans and includes promotion of development and use of ocean resources, including living aquatic resources, as well as conservation of the marine environment.

Japan is Party to the 1982 United Nations Convention on the Law of the Sea (UNCLOS) and of the 1995 United Nations Fish Stocks Agreement (UNFSA) since June 1996 and August 2006 respectively. Since June 2000, Japan is Party to the 1993 FAO Compliance Agreement.

REFERENCES

Ministry of Agriculture, Forestry and Fisheries (MAFF). 2008. *Fisheries White Paper 2008*. Tokyo. 123p.