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**Japan's National Plan of Action for
the Conservation and Management of
Sharks**

**Government of JAPAN
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Japan's National Plan of Action for the Conservation and Management of Sharks

1. Introduction (basic principle and objectives)

Japan, as a responsible fishing nation, is fully aware that fisheries activities have an important role in the supply of food to mankind. Japan duly respects:

(1) the awareness of the international society that fisheries are an important industry having the function to ensure social and economic welfare of the people around the world (Kyoto Declaration on Sustainable Contribution of Fisheries to Food Security and its Action Plan);

(2) the international agreement that states commit themselves to the conservation and sustainable use of marine living resources (United Nations Conference on Environment and Development (UNCED) and Chapter 17 of Agenda 21); and

(3) Code of Conduct for Responsible Fishing of the United Nations Food and Agriculture Organization (FAO) that calls for promotion of contribution of fisheries to food security.

Japan recognizes that sharks are important fishery resources. At the same time, it shares the international concern over the impact of catch of sharks by various types of fisheries by many States. Based on this perspective, Japan has established an effective and feasible Action Plan, by objectively identifying the impact of the Japanese fisheries on shark resources, analyzing it scientifically, and fully taking into account the internationally agreed codes of conduct in order to implement appropriate conservation and management of sharks.

Japan further intends to ensure scientific knowledge and information concerning shark resources through implementation of this Action Plan, and ensure conservation and sustainable utilization of shark resources in a rational way based on such adequate knowledge and information.

2. The situation of fisheries and species subjected to the Action Plan

2.1 Japan has compiled fisheries/aquaculture production statistics on the catch reports regarding representative fish for each type of major fisheries. Regarding sharks and rays, statistics are taken as sharks and rays taking into consideration the difficulty fishers encounter in identification. In the 1950s, Japan was one of the leading sharks fishing countries, catching about 90,000-110,000 tons a year. However, in recent years, fishing activities targeting at sharks declined, along with the decline in catches. According to the statistics of 1998, there were catches of 24,341 tons of sharks and 4,329 tons of rays, which were increases of 14.1% and 9.3%, respectively over the previous year. However, no conspicuous changes have been observed during the past 9 years.

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Sharks	21,979	25,167	27,589	25,673	23,537	18,286	19,393	21,324	24,341
Rays	5,492	4,778	4,585	4,247	4,040	3,985	4,029	3,959	4,329
Total	27,471	29,945	32,174	29,920	27,577	22,271	3,422	25,283	28,670

(Source: fisheries/aquaculture production statistics annual report, Ministry of Agriculture, Forestry and Fisheries)

2.2 The species subjected to this Action Plan are Elasmobranchii (sharks/rays) living or migrating in the Japanese exclusive economic zone (EEZ) and Elasmobranchii caught by Japanese fisheries outside the EEZ. The fisheries subjected to this Action Plan are all harvesting those species. Assessment was made on the following types of fisheries, taking various degrees of impact on shark resources into consideration.

2.2.1 Gillnet fisheries along Hokkaido coast (skates)

As for catch of skates, 76% are caught by gillnet, and in Hokkaido, majority of the catch occur along the coast of the Okhotsk Sea and the Sea of Japan. Skates distributed in Hokkaido are the following 21 species:

Kwangkung skate genus:

Mottled skate, Acutenose skate, Three star skate, Common skate,

Rasback skate genus:

Abyssal skate, File skate, Rasback skate, Challenger skate, Dusky pink skate, Okhotsk skate, Dusky purple skate, Tsumura skate, Notoro skate, Lindberg skate, Whitehead skate, Fedorov skate, Aleutian skate, Golden skate, Thorn skate,

Dapple-bellied softnose skate genus:

Dapple-bellied softnose skate, and White-bellied softnose skate.

It is said that the species caught in the largest number among them is Mottled skate, followed by Golden skate.

Although data on the resource status by fish species are not available, catch volume of rays by flounder gillnet fishery, both in terms of the number of fishing enterprise and by the number of fishing days peaked out in 1971, gradually declining afterwards and staying at a low level in recent years.

2.2.2 Trawling fishery in the areas off Tohoku and the Sea of Japan (Piked dogfish)

Piked dogfish are widely distributed in the entire area of the North Pacific, eastern and western parts of North Atlantic, southern coast of Australia, except tropical and subtropical such as southern tip of the African continent and northern South American continent. In the Japanese near-shore area, they are found largely in Tohoku and Hokkaido. On the Pacific side, they are found north of Chiba Prefecture and, on the Sea of Japan side, to the south of the Sea of Japan. A large bulk of sharks caught by trawling in the Tohoku region is Piked dogfish, with Star-spotted smooth-hound being found sporadically.

Piked dogfish had been harvested actively mainly by trawling fisheries, in line with the government policy for increase of food supply after the World War II. In recent years, it is no longer main target fish species in trawling fisheries, but is only caught incidentally in the fishing targeting flounder and other species. Catch volume in areas off Tohoku and the Sea of Japan in recent years stayed around 200 tons each, and sharks caught are processed into surimi as material of fish paste, and fins are used as shark fin as materials for Chinese cuisine.

It is safe to say that CPUE in trawling fisheries in the Japanese near-shore area has been stabilized at a low level since 1985 when Piked dogfish ceased to be a major target species.

2.2.3 trawl fishery operated in the East China Sea (bottom sharks, rays)

This is trawling fisheries conducted in East China Sea and Yellow Sea, and overall catch volume in 1999 came to approximately 20,000 tons, of which sharks and rays totaled 200 tons. The number of shark species identified as emerging in the East China Sea/Yellow Sea is estimated as 101. Major species up to the water depth of 500m of shelf edge area Cloudy catshark, Blackspotted catshark, Graceful catshark, Blackbelly lantern shark, Slendertail lantern shark, Japanese spurdog, Shortnose dogfish, Angel shark, Kwanggung skate, Sharp spine skate, Deepwater stingray, and Sepia stingray.

In the mud bottom area at the water depth of 200 meters or shallower where trawl fishery operated in the East China Sea trawling fisheries usually operate, Blackbelly lantern shark, Slendertail lantern shark, Japanese spurdog, Deepwater stingray are caught very rarely in surveys, and are not usually landed.

Japanese woebegone, Draughts board shark, Angel fosu, Angel shark, Starspotted smooth-hound, Japanese bullhead shark are used as boiling, and Black sand skate, Sharp spine skate, Kwanggung skate are used for processing rays fins. But they are not major target species but caught only incidentally.

CPUE for these species is low, but their resources status is considered to be stable.

2.2.4 Tuna longline fisheries (oceanic sharks)

It is believed that 25 to 26 species of sharks are caught incidentally by Japanese tuna longline fisheries.

According to domestic statistics, catch volume by these fisheries had been 20,000-30,000 tons in the past, but in recent years, declined to 13,000 tons-16,000 tons. However, these figures have been underestimated from actual catch because they did not include the amount of sharks not possessed onboard and not landed in Japan because of their meager economic value.

There are 6 species more often harvested by these fisheries: Blue shark, Shortfin mako, Crocodile shark, Oceanic whitetip shark, Silky shark, and Bigeye thresher.

Stock assessment of sharks caught by these longline fisheries was conducted from the data supplied by survey vessels operated by Japan prefecture governments, and it showed no conspicuous changes in CPUE and fishing rate. On this basis, it is considered that the resources status is stable.

Looking at fishing effort of these fisheries in terms of number hooks has indicated a decline since 1992, with the number of hooks between 1995 and 1997 staying at 460 million. From this, it seems safe to conclude that there is need to continue observation on sharks caught by these fisheries but no special conservation and

management measures are necessary at present.

3. Collection of information

3.1 In Japan, varieties of sharks are harvested by various types of fisheries as useful resources. However, there are very few fisheries that target only sharks, and sharks are harvested mostly as bycatch. Therefore, it is very difficult to make an accurate assessment only through catch reports provided by fishers.

3.2 For this reason, it was decided that assessment of the resources status of sharks will be carried out on a continuous basis through a group of experts consisting of Japanese expert was established. Acquisition of necessary information for assessment of shark resources will be ensured by collecting the following data and conducting surveys on a continuous basis.

- (1) Catch data provided by commercial fishing vessels
- (2) Survey data by surveys vessels belonging to the central and regional governments and others.
- (3) Survey materials by scientific researchers
- (4) Landing data in Japanese ports
- (5) Catch statistics data by central and regional governments

4. Promotion of effective utilization

4.1 In Japan, sharks landed in certain quantities locally are subjected to high-level utilization. Its meat is used in the form of surimi as materials for paste products such as kamaboko and hanpen. In some areas, it is used as materials for ordinary diet and some parts such as heart serves as delicacies. Its skin is used as raw materials for high-grade skin products or cooking tools, and its bones are used as pharmaceuticals. Thus, there is higher level of use of sharks in Japan compared with other countries.

4.2 However, there exist certain regions where sharks are landed as by-catch species on an irregular basis. In such communities, high-level use is difficult because of absence of processors and dealers. Thus the economic value of sharks remains low.

Because such a situation constitutes one of the causes for declining interest to shark resources among fishers and local society as a whole, the Government of Japan is continuing surveys and research for development of new ways of use aimed at higher-level use of shark resources.

4.3 Further, in some fisheries that are operated far away from the Japanese market for a long range of time, there are some cases where only fins of sharks are brought back to Japan. This practice is considered to be a reasonable economic means in fisheries of utilizing by-catch species with low economic value by making utmost use of the parts having higher market value. To deny such a practice flatly is conducive to denial of rational fisheries activities as such and discourages

fishers from realizing effective utilization of by-catches. Therefore, as long as such a practice poses no problem to the status of resources, partial use of fins of sharks should be recognized as one of effective ways of utilization of sharks caught incidentally and promoting research and development will be made to achieve higher level use of unused parts in order to improve the use of by-catches.

Furthermore, supply of catch information by fishers catching the resources is indispensable for accumulating information on sharks' resources. Efforts will be continued to monitor sharks resources and ensure scientific and rational conservation and management and sustainable utilization of resources by encouraging fishers to provide information.

5. Educational activates and extension

5.1 It is of paramount importance to evoke social interest in FAO International Plan of Action and the National Action Plan not only among fisheries circles but also general public in promoting sustainable utilization and conservation of shark resources in Japan. Further, collection of accurate data is crucial to make appropriate assessment of shark resources in the years ahead. For this goal, efforts will be made to enhance awareness toward management of sharks' resources through educational and propaganda program for fishers on the importance of management based on the Action Plan.

5.2 Specifically, pamphlets and posters for species identification has been prepared and distributed in Japan. This effort will be strengthened by continuation of the following programs.

- distribution of species identification format for sharks to fishers and holding of seminars concerning shark resource management
- educational activities to the general public concerning shark resources within Japanese culture
- making of video films and posters, etc.
- supply of information about sharks to fishers/fisheries organizations
- educational programs for successor to fisheries enterprises

6. Promotion of international cooperation

6.1 In Japan, sharks have been harvested and utilized under its national fisheries management system from olden times. Japan will make progress reports on the Japanese of this National Action Plan developed in line with FAO International Plan of Action. It will also actively contribute to strengthening cooperation at FAO and regional fisheries management organizations regarding conservation and management of sharks.

6.2 Regarding Illegal, Unregulated and Unreported (IUU) fisheries and fishing activities by flag-of-convenience (FOC) fishing vessels, which constitute serious problems in resources management at present, on the other hand, we are concerned that those fishing activities will undermine the efforts of nations coping with conservation and management of shark resources under international Plans of Action because they operate outside the international arrangements for conservation and management of fisheries resources, including sharks. Therefore, Japan will continue its cooperation with countries involved through FAO and

regional fisheries management organizations as much as possible in the collection information and achieve accurate assessment of the impact given by fisheries operated outside regulations through international cooperation so that those fisheries are abolished in order to attain the goal of conservation and management for sharks' resources.

7. Management measures

7.1 Many fisheries in Japan are placed under the control of central and prefecture governments through license or approval systems, and entries into fisheries are restricted. For this reason, it is not likely that catch pressures on shark resources caught by Japanese fisheries will largely increase in the future. At present no need is recognized to introduce regulatory measures by type of fisheries catching sharks.

7.2 However, considering international concern over the shark resources, and in view of the need to give adequate attention to the state of shark resources in the future, the Government of Japan will establish following system in the management of shark resources.

7.2.1 The group of experts mentioned in 3.2 will make assessment of shark resources on a regular basis and report to the committee composed of scientists, administrators and fishers.

7.2.2 Based on the above assessment, discussion will be made at the committee regarding the need for management measures and have the decisions reflected in the National Action Plan.

The following items will be considered in discussing the above.

- (1) Biological characteristics and sustainability of the target species.
- (2) Characteristics of fisheries subjected to the Action Plan
- (3) Ensuring safety of fishers and appropriate burden.
- (4) Socio-economic effects of conservation and management measures