THE ORGANIZATION FOR THE PROMOTION OF RESPONSIBLE TUNA FISHERIES

OPRT

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FOR CONSERVATION AND SUSTAINABLE USE OF TUNAS

OPRT Interview

Is the Future of Tuna Resources Ensured?

—Toward conservation and management of tuna resources—
Interview with Isao Nakasu, new President of the OPRT—an organization that unites producers, distributors and consumers of tunas across the borders

Mr. Nakasu was elected as President of the OPRT in June this year, succeeding Mr. Hiroya Sano. He is concurrently serving as President of the Japan Fisheries Association. This article is an excerpt translation of the interview carried in the September issue of the bulletin of the Seamen's Insurance Foundation.

QUESTION: When was the OPRT established?

NAKASU: The OPRT was established in December 2000. It marked its third anniversary of establishment last December.

QUESTION: Could you tell us about the background leading to the establishment of the organization?

NAKASU: As tunas migrate extensively throughout the world, countries concerned have established "fisheries management commissions" and developed certain regulatory measures for the management of marine resources for each region—e.g. the Atlantic, the Indian Ocean and the Eastern Pacific. However, the number of vessels harvesting tunas gradually increased, and a concern arose that the number of vessels has become excessive in proportion to the population size of tunas. In 1999, the United Nations Food and Agriculture Organization (FAO) developed the International Plan of Action for the Management of Fishing Capacity, and recommended a reduction in the number of fishing vessels engaged in large-scale tuna longline fishing at least by 20-30% throughout the world. Pursuant to this recommendation, Japan scrapped, five years ago, 132 of its large-scale tuna longline fishing vessels, which accounted for 20% of its total capacity.

Isao Nakasu

Problems arose amid this situation. That is to say, we saw an increase in the number of flag-of-convenience fishing vessels engaging in illegal, unregulated and unreported (IUU) fishing activities (IUU/FOC fishing vessels) which harvested the resources in a pirate-like manner in disregard of the regulatory measures stipulated by the fisheries management commissions. As the countries accommodating the FOC vessels are not members of international conventions, those vessels harvested tunas as many as they wanted without any restriction, and they brought their catches to Japan—the largest tuna market in the world. A sense of crisis was felt by this course of event, and there arose a rising voice to eliminate the IUU/FOC fishing vessels. At that time, Taiwanese shipowners registered the largest number of the FOC vessels in other countries. On top of that, the bulk of their vessels were second-hand Japanese tuna fishing vessels which were previously exported to

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Taiwan and were converted to FOC fishing vessels.

With the aim to eliminate those Taiwan-owned FOC fishing vessels, substantial consultations were held between Japan and Taiwan, both on private and governmental levels. As a result, the Organization for the Promotion of Responsible Tuna Fisheries (OPRT) was established as an organization to eliminate the Japanese-origin FOC fishing vessels, with Taiwan's concurrence to get rid of such vessels.

QUESTION: What specific actions were taken?

NAKASU: Because second-hand fishing vessels exported from Japan had been used, our actions started with the OPRT scrapping those second-hand fishing vessels, using the fund provided annually by Taiwanese and Japanese tuna fishing vessel owners. The scrapping program lasted from 1991 to 1993, completing the scrapping of 39 vessels in three years.

In this sense, the members of the OPRT basically consist of the unions of tuna longline fishing vessel owners both in Taiwan and Japan.

QUESTION: At present, not only fishermen's organizations but also organizations of consumers and distributors take part in the OPRT. Is it true?

NAKASU: We asked ourselves why illegal and pirate-like FOC fishing vessels have been increasing. We thought the basic problem lies in the fact that the market countries purchase the tunas caught illegally.

"The Organization for the Promotion of Responsible Tuna Fisheries" stipulates that the responsibility to conserve the tuna resources steadily rests on fishermen, but it also wishes to gain cooperation from traders, distributors and consumers of tuna in conserving the resources. Put it in a clear-cut way, illegal fishing can be eliminated only through the cooperation of all stakeholders under the commitment of "not eating tunas caught by IUU/FOC fishing vessels." Under this concept, the organizations of consumers and distributors joined the OPRT from the very outset of its foundation.

As the promotion of responsible tuna fisheries is a common task for the shipowners of various nations harvesting tunas, organizations after organizations joined the OPRT from abroad. At present, fishing organizations from the Republic of Korea, the Philippines, Indonesia and China became members in addition to Japan and Taiwan. The newest comer is a fishing organization from Ecuador. More than 90% of the world's large-scale tuna longline fishing vessels have now become members of the OPRT.

QUESTION: What steps has the OPRT been taking?

NAKASU: One step we have taken was to encourage all the tuna longline fishing organizations to join the OPRT to promote responsible tuna fisheries together.

Another step was to eliminate illegal tuna fishing vessels and promote the development of a system for legitimate global registration of distant-water tuna longline fishing vessels, called the "positive list system," so that only vessels strictly abiding by the international management and conservation rules can engage in tuna fisheries. This list was designed to include the name of vessels, which are authorized by the flag States (including non-member States) and also registered and authorized by the international resource management organizations, as the fishing vessels operating in compliance with the rules of the sea.

Pursuant to the positive list, a system came to be enforced to exclude from international trade the tunas caught by fishing vessels not included in the list. This "positive list system" contributed substantially to the solution of the issue surrounding IUU/FOC tuna longline fishing vessels. Further, the OPRT has been compiling data for all time periods on which countries and which vessels exported tunas to Japan and in which fishing ground the tunas were harvested. In point of fact, it is one of our substantial tasks to monitor the imports so that tunas from the vessels not in the "positive list" may not be brought into the Japanese market.

Situation of Expanding Tuna Farming Remains Unknown —Concern over the Decline of Tuna Resources—

QUESTION: Production of farmed tuna has increased substantially in recent years. Is that true?

NAKASU: It is one of the issues facing us now. Tuna farming is carried out mainly in Australia and the Mediterranean. Small-size tunas are caught and fattened by feeding them in large cages to make the whole body "toro (fatty part)." These farmed tunas are raised to be sold in the Japanese market where there has been a special desire for "toro" or "o-toro (very fatty)" tuna.

The issues surrounding farmed tuna include (1) who farmed them, (2) how small-size tunas were caught, and (3) whether catch quotas are properly observed.

The International Commission for the Conservation of Atlantic Tuna (ICCAT) started the development of the "positive list" for tuna farms and is trying take measures to address the above issues.

However, the price of farmed tunas fell drastically in the Japanese market last year because of the excessive supply caused by excessive production. Also, consumers may have become tired of tuna with excessive fat content.

QUESTION: Indeed, we cannot eat too much overly fatty tuna. By the way, what kind of fishing method is longlining?

NAKASU: Longlining is a fishing method friendly to the marine resources. It is not designed to harvest the fish at one stroke, but it is a kind of angling method to cull adult fishes. Also it is designed to harvest fish without hurting the body to ensure the quality for sashimi. I believe it is a method that can contribute to sustainable use of tuna resources.

QUESTION: What other methods than longling are used to catch tunas?

NAKASU: One of them is purse-seine fishing. In recent years, the number of purse-seine fishing vessels has been on an increase, with the catches increasing conspicuously.

In the Pacific, large-scale (super) purse-seine fishing vessels of 1000 to 2000 gross tons in capacity are now increasing rapidly. Annual harvest per super purse-seine fishing vessel amounts to about 10,000 tons. Thus you see the impact of this fishing method on the resources is substantial. In the case of longliner, the annual harvest per vessel is only 200-400 tons because of the nature of the fishing method.

QUESTION: My last question is what is the future course for the OPRT.

NAKASU: We have achieved certain results regarding the elimination of IUU/FOC fishing vessels. But, seen from the state of the resources as a whole, there are still too many legitimatized tuna fishing vessels. This certainly is an issue we are faced with. I think the important task before us is to shift the focus of our action toward reducing the number of tuna fishing vessels throughout the world, including purse-seine fishing vessels.

The difficult point here is that the situation differs from country to country. For example, developing countries may say: "We are just about to launch tuna fishing. We are in no position to do that if we are told to reduce the total number of fishing vessels. The advanced nations that have used tuna resources so far should respect the position of developing countries." In short, countries have different positions.

At any rate, we may all agree on sustainable continuation of tuna fisheries in the years to come. I believe it is very important that we continue to discuss, or create opportunities to discuss, at the OPRT on how best we could reduce the fishing capacity which is now excessive in proportion to the size of resources.

Special Feature

"Fisheries Are Essential for the Survival of Mankind"

Dr. Ziro Suzuki
Chief of the Pelagic Fish Resources Division
National Research Institute of Far Seas Fisheries

Foreword

Criticism of fisheries, especially those using large-scale fishing vessels, from conservationist organizations has been intensifying lately. What concerns me about this trend is that there is a lack of recognition that fisheries (fish diet) is essential for mankind and at the core of the criticism is the assumption that fisheries are not absolutely necessary as they disrupt the ecosystem by overexploiting target species and catching various living resources incidentally.

Rather, the difficulty is that there is very low recognition that fisheries are essential for mankind. I believe this should be part of our common sense. More basically, we should know how important it is to secure our food supply. If we could spread awareness and knowledge to the general public, including conservationists, that fisheries are truly necessary for the survival of mankind, the futile arguments surrounding incidental catch—e.g. the argument pursuing elimination of incidental take even to the extent of prohibiting the fishing activities completely—will certainly be reduced.

By widening this understanding, I would hope that the number of conservation groups advocating coexistence with fisheries would increase.

Further, we have to step up our efforts to educate consumers so they know how and where the fish they eat is harvested and whether the purchase and eating of those fishes are causing any problems. What I am going to express may be a matter of course and nothing new to us who are involved in fisheries. But I write in the hope that the general public—both in Japan and abroad—come to learn about fisheries and fish.

The importance of fishery products in the supply of animal protein

What is the proportion of fishery products in the animal protein consumed by the people throughout the world? I would like to provide a rough picture. Based on public data, including annual reports issued by the U.N. Food and Agriculture Organization (FAO), the world production of animal protein in 1998-2000 was as follows:

The approximate overall production—fishery products: 130-140 million tons; pork: 90 million tons; beef: 60 million tons; poultry: 50-60 million tons; chicken eggs: 50 million tons; and cow milk: 470-490 million tons

Cow milk contains only 3g of protein per 100g. Therefore, after it is discounted by a conversion coefficient of 7 in order to convert it to the equivalent amount of protein contained in fishery products and livestock meat, it turns out to be approximately 70 million tons. Also, as chicken eggs contain only 12g of protein per 100g, the protein amount becomes 30 million tons after it is discounted by a conversion coefficient of 2.

As a result, fishery products accounts for about 30% of all animal protein. About 25% of fishery products are used for non-edible purposes such as fish meal. However, the fact that fishery products roughly account for one third or one fourth of animal protein, coupled with the fact that fishery products are relatively inexpensive and a readily available vital protein resources in many developing countries, means that it would not be possible to support the life of human beings on the earth without fishery products. Furthermore, to terminate the production of fishery products and instead increase the production of livestock products is not a suitable option because livestock production creates a larger environmental burden and has a lower production efficiency than fisheries. It might be plausible to draw a conclusion that fishery products are indispensable for the survival of mankind from the viewpoint of supply and demand of animal protein.

Superiority of fish as food and risk of mercury contents and other issues

It is recognized worldwide that fish is a healthier food than livestock meat. Often cited are examples of eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). However, it is said that large fishes such as tunas and swordfish contain a high level of mercury (organic mercury: methyl mercury), and it has been warned that consumption of those fishes by pregnant women and children involves some dangers. Mercury contained in large fishes has been perceived as problematic on several occasions.

When mercury contained in tunas became an issue about 20 years ago, it was also reported that an element called selenium contained in tunas had the effect of eliminating mercury poison.I am not aware that any research has been conducted to trace the opposing effects of selenium. If not, it is a shame that the researchers of Japan, a fish eating country, have not pursued any study on this subject in subsequent years. I am also aware that environmental organizations used the mercury threat irresponsibly in their campaigns to limit commercial fisheries.

Here we are faced with a very simple question: if there are human health problems associated with the frequent

consumption of certain fish, then how does Japan, which is among the largest fish-eating nations, retain the longest average life span in the world?

There have been several cases of epidemiological surveys. Two instances have been reported: the Seychelles where there is active fish-eating practice, and the Faroes Islands where large amount of dolphins are consumed (Annex 4, the 61st Meeting of JECF: 2003, Rome). In the former, the interrelation between fish diet and the impact of mercury on health was not clear. In the latter, there seem to be cases both with impact and no impact. Therefore, it cannot be said adequate clarification has been obtained from these studies.

In assessing some food, a comprehensive assessment taking positive elements into consideration should be made, even when there are specific negative elements, because food has diverse ingredients and all of them are consumed. I think it is a reasonable conclusion to deduce from the dietary life in Japan—the country having the longest average life expectancy in the world—that there is no problem with consuming fish at normal frequency.

Superiority regarding environmental burden

Recently, the Science Council of Japan has issued recommendations to the Minister of Agriculture, Forestry and Fisheries under the heading of "the contents and assessment of multiple functions of fisheries and fishing villages regarding the earth environment and human life." In the recommendations, it is pointed out that, as one of various advantages, fisheries have superiority in having not only smaller environmental burdens as compared with the livestock industry but also positive complementary functions not to disrupt the balance of material recycling caused by increase in environmental burdens. This does not seem to be generally understood.

There can be serious environmental burdens caused by cattle-raising and large-scale agriculture. Fisheries, if properly managed, have an excellent superiority in terms of burdens to the environment.

However, there are uncertain factors as well. Culture fisheries have now been developed, holding an important position in the fisheries industry. We need to give full consideration to the deterioration of culture sites and the impact to the surrounding environment. We need to see that inspection and monitoring system are adequate to determine if excessive harmful substances may be found in culture fish. Further, we have to consider whether sufficient consideration is given to the conservation of incidentally caught resources in capture fisheries. If appropriate consideration is not given to the basics of sustainable fisheries, there could be a major negative impact on fisheries including overexploitation. If such consideration is not made, the assertion that fisheries are not necessary will get the better of those who consider otherwise.

Fisheries are essential for the survival of mankind

--overfishing capacity issue should be addressed--

It is reported in FAO's assessment that approximately 35% of the world's major resources for capture fisheries are in the sustained decline in catches, and 25% are being harvested to the maximum capacity. (Review of the state of world fishery resources: marine fisheries., FAO Fisheries Circular. No. 920. Rome, FAO. 1997. 173 p.) Although decline in catches is not directly linked to overexploitation caused by man because environmental changes are also involved, it could be roughly regarded as an indicator of overexploitation. Can we respond affirmatively to the question "Are fisheries managed properly?" If we cannot do so with confidence, then the superiority of fisheries as a source of protein may decline. If 35% of the total catches come from overexploitation, we may not be able to respond affirmatively with confidence. There have been some cases of failure in stock management before the concept of responsible fisheries was established. However, in the FAO reports I cited above, the proportion of the stock under the category of declining catches against total catches is still increasing annually. This issue should be addressed seriously.

Why isn't this trend coming to an end? There may be some causes: for examples, stock assessment has been too optimistic, guidance and supervision in fisheries management has not been adequate and fishermen continued illegal operations in disregard of the

regulations, etc. In recent years, management of over-fishing capacity has rapidly become a serious problem. At the bottom of the issue of over-capacity lies, in many cases, the North-South problem, which makes it very difficult to tackle. Unless the advanced fishing nations and developing fishing nations find some point of compromise, both may have find their industry in collapse. Unless sustainable fisheries are ensured, the assertion that fisheries are indispensable for the survival of mankind will lose its strength.

Whether or not we can clear this last hurdle will become a decisive factor in determining the future prosperity or decline of fisheries, especially capture fisheries.

Symposium

IIFET2004 Held Under the Theme of "What Are Responsible Fisheries?"

--About 450 from more than 50 countries participated in active debate--

The 12th meeting of the International Institute of Fisheries Economics and Trade (IIFET2004) was held at the Shinagawa campus of the Tokyo University of Marine Science and Technology from July 26 to 29, 2004. About 450 researchers, industry representatives and administrators took part in active debate under the main theme of "What are responsible fisheries?"

Participants in active debate at IIFET Symposium

The meeting was divided into sessions to discuss specific areas of responsible fisheries. In the Special Session on International Trade of Fisheries Products, panelists from the United States, Norway, Australia, Thailand, China and Japan participated. In the course of the discussions, there was a common recognition among participants that international trade “should not hamper responsible use of, and conservation measures for, fishery resources amid the present global trend toward liberalization of fishery product trade.”

Further, it was pointed out that international trade is closely connected to the issues of over-fishing capacity and illegal, unregulated and unreported (IUU) fishing activities. The “positive list system” was presented as one of the concrete means of solution of those issues. Some participants expressed the view that the “understanding and active role of consumers are crucial to promote responsible fisheries and responsible trade in fishery products.” Others stated that “excessive globalization should be monitored so that responsible use of fishery resources may not be impaired.”

OPRT Members

Cooperation in Efforts toward the Reduction of the Longline Fishing Vessels
- Japanese and Taiwanese tuna industries reach an agreement -

The Federation of Japan Tuna Fisheries Co-operative Associations and the Taiwan Deep Sea Tuna Boat Owners and Exporters Association concluded an agreement in Tokyo on 22 June 2004, specifying that "the two organizations will cooperatively work for the reduction in the number of large-scale tuna longline fishing vessels."

The details of the agreement include a sentence to the effect that "The parties share the recognition of the needs for the international-scale reduction of the number of large-sized tuna longline fishing vessels." The agreement stipulates the joint efforts toward the reduction of the fishing fleet by Japanese and Taiwanese tuna industries that virtually account for 80% of the world's entire large-scale tuna fleet for the promotion of worldwide reduction.

International Organizations

IATTC

IATTC Decides on 6-week Complete Closure of Purse Seine Fishing and Control of Longline Fishing in the Eastern Pacific

At its 72nd meeting held in Lima, Peru on 14-18 June 2004, the Inter-American Tropical Tuna Commission (IATTC) decided that the following measures will be taken for the control of the bigeye and yellowfin tuna fisheries in the respective years between 2004 and 2006 in the Eastern Pacific Ocean (East of 150 degrees west longitude, north of 40 degrees south latitude, and south of 40 degrees north latitude).

The meeting was attended by 14 IATTC member countries (Japan, Costa Rica, Ecuador, El Salvador, France, Guatemala, Mexico, Nicaragua, Panama, the U.S., Vanuatu, Venezuela, Peru, and Spain) as well as 5 observers (EU, Bolivia, China, Korea, and Taiwan).

(1) Control of bigeye and yellowfin tuna fisheries

1. Complete closure on purse-seine fisheries for 6 weeks each year. (Flag states choose either of the closure periods, i.e., one between August 1 and September 11 and the other between November 20 and December 31.)

2. Longline catches of bigeye tuna are required to be kept below 2,639 tons (14,495 tons) for China, 34,076 tons (20,517 tons) for Japan, 12,576 tons (10,272 tons) for Korea, and 7,953 tons (12,501 tons) for Taiwan. Catches by the other countries are required to be kept at the level of the bigeye tuna catch in 2001.

* Numbers in parentheses are the results in fishing year 2003.

(2) Measures for the reduction of bycatch of sea turtles.

The "consolidated resolution on bycatch" and the "three-year program to mitigate the impact of tuna fishing on sea turtles" drafted at the meeting of the Bycatch Working Group held in Kobe in January this year (as posted in "What's new" dated 2004/02/05 on the OPRT website), were adopted. Furthermore, the effectiveness of the use of circle hooks in the reduction of the bycatch of sea turtles in longline fisheries was reported and specific research and implementation have been requested.

(3) Measures against IUU fishing

Resolutions were adopted to establish the IUU fishing vessels lists in order to take measures to eliminate their activities and concerning a system of notification of sighting and identification of fishing vessels.

WCPFC

Interim Actions to Reduce Super Purse-seine Fishing Vessels
Unanimous Agreement Reached for the Western and Central Pacific
- Workshop on Compliance with the WCPFC Resolutions -

At the Workshop on Compliance of the WCPFC (the Western and Central Pacific Fisheries Commission) held in Sapporo on 14-16 July, 2004 (in which 23 countries

and regions, including Japan, the U.S., EC, and Pacific small island states participated), the following list of interim actions was agreed to unanimously:

1. To request WCPFC members that own large high seas tuna fishing fleets to cease the construction and introduction of tuna purse seine and longline vessels;

2. To request members to cooperate to ensure that the companies which created the over-capacity of purse seine vessels in contravention of the MHLC and PrepCon resolutions will scrap by 31 July, 2007 or cease all fishing immediately by the 23 tuna purse seine vessels of 1,000 GRT class fishing in the region.

Such cooperation includes:

-joint efforts to establish and implement a fleet reduction program

-cessation of the provision of vessel equipment for construction of vessels

-persuasion and guidance to the relevant international business entities involved for compliance with the WCPFC conservation programs and their possible financial and/or other contribution to the fleet reduction program.

3. To request the members concerned to submit a fleet reduction program to the PrepCon VII (scheduled to be held in December 2004);

4. To collect information on the activities of trading companies and other entities undermining the effectiveness of WCPFC's conservation and management measures and fleet reduction programs.

The above list of interim actions will be presented and discussed anew at the December PrepCon VII.

Tidbits on Marine Living Resources by Dr.Shark

Serial No.2

How to Count Fishes in the Sea

How many fishes are there in the sea? If we know the number of tunas in the sea beforehand, we may have no trouble in determining shares for fishermen and catch quotas for countries. In the case of carps in the pond, you can count them accurately if you drain the water from the pond. But the case of fishes in the sea is not so simple. Scientists have continued arduous efforts to find out the way to count fishes in the sea.

Although it is formidable work to find the total population of fish, catch per unit of effort (**CPUE**) is used often as one of the yardsticks to examine whether a stock is increasing or decreasing. It is an easy-to-understand indicator because if the number of fish increases, the catch per fishing effort will naturally increase and vice versa. CPUE, in short, is the catch rate.

We also have the **production model** as a method to estimate the size of a population. For example, if we increase the number of fishing vessels, the catches naturally increase, but when they hit a peak, the growth in the catch volume will remain level and show no increase. This method is designed to estimate the total

population of the stock by measuring the peak level. The catch amount at the peak time is called the maximum sustainable yield (MSY).

An attempt to examine the stock size by estimating something like a population pyramid for counting human beings is a method called **cohort analysis**. This is designed to measure the total population by estimating the age composition of the stock by the age composition of the catches. In an age when a rocket reaches Mars and missile trajectories can be calculated precisely, it is still difficult to predict accurately the number of fishes in the sea. The ocean may be a frontier left for us to study more diligently than the universe itself.