



**THE FOURTH REGIONAL WORKSHOP ON SHARED STOCKS:  
RESEARCH AND MANAGEMENT  
IN THE SOUTH CHINA SEA**

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**STOCK SHARING AMONG NEIGHBORING COASTAL STATES**

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## 1. Introduction

In 1992, the United Nations Convention on the Law of the Sea (UNCLOS) took effect. Following the entering into force and the increasing of ratification of the Law, the international reinforcement of management concerning highly migratory fish species and straddling fish species is being pursued by the establishment of the U.N. Implementation Agreement. In general, the straddling fish stock is broadly divided into three categories; (1) those distributed across exclusive economic zones of more than one coastal states, (2) those distributed both in the exclusive economic zone of a coastal state and the high seas, and (3) those distributed in the exclusive economic zones of more than one coastal states and the high seas. Some of them have been already subjected to fishery management under bilateral or international frameworks.

It is my understanding that this meeting will seek and discuss management system with a special emphasis on small pelagics in the Southeast Asian coastal/offshore waters. It is also my understanding that, in this effort, advice or suggestion from Japan is being sought. However, in the Northeast Asian waters including areas adjacent to Japan, regional fishery organization for the management of small pelagics has not yet been established. For the time being, bilateral discussion between countries involved is made on a gradual basis within the framework they belong. Management measures are introduced starting with the species for which management is possible, based on the perspective to build up a multilateral agreements in a longer term.

Consequently, it is our wish to promote, through this meeting, discussion with Southeast Asian countries on ways how to cope realistically with this situation and improve it. For this purpose, I introduce several cases in the world and touch upon my personal idea possibly suitable for sustainable fisheries in this region.

## 2. Multilateral agreements regarding straddling fish species

Bottom fish--a predominant portion of straddling fish species--have been used historically from olden times not only in Asia but also in Europe. As fisheries were modernized and their scale was enlarged, competition and, in consequence, conflict among user countries tended to intensify. One representative case was what is known as the "War of Cod", which erupted in the North Sea between the United Kingdom and Iceland in the 1970s. Both countries attempted to maintain and expand their respective fishing activities even with the backing of their naval forces. In recent years, we witness intensifying confrontation and politicization of the conflict in the Northwest Atlantic over blind goby between Canada and Spain. Besides these large-scale conflict, there are numerous strifes in smaller scale. In some cases there arose obstructing actions in which fishermen resorted to destruction of each other's fishing gear.

Such conflicts are futile in essence, and incessant attacks and retribution simply frustrate fishermen. From such bitter experience in the past, regional fisheries management organizations were established in the Atlantic, and democratic decision-making means approach to stock management and other purposes through consensus and majority votes became general. At present, any action resorting to naval power to solve such confliction is at least not acceptable in the international common sense.

Unfortunately, traditional regional fisheries management organizations such as NAFO(Northwest Atlantic Fisheries Organization) and NEAFC (Northeast Atlantic Fisheries Commission) witness the stock status of major fish species subjected to fisheries deteriorating visibly, suggesting that stock management to date have not been successful. This is due to the fact that management measures tended to be lenient so as to be accepted by all the parties concerned since decision-making by any regional organization is taken by means of consensus or based on a wide range of support votes. In addition to this fundamental tendency, where a fish stock tended to decline, small-size fishes with low market value are continuously discarded on the ocean with the aim to achieve maximum profit out of the catch quota granted to fishermen under the quota control system. This hampers reproduction capability of fish stocks conspicuously, further accelerating deterioration of their status.

I refrain from going into detailed discussion with respect to positive or negative aspects of the quota control system, but it is my understanding that, at the "FAO Fish Rights 99 conference" held in Western Australia in November 1999, there was a clear recognition that at least the current quota control system such as ITQ is not functioning properly for sustainable fisheries.

As one of the invited panelists at that meeting, I presented a paper titled "Direction of Future Fishery Management", in which I pointed out issues arising from excessive expectation or dependence on catch quota management. In response to such criticisms of mine, some countries depending on ITQ management asserted that community-based management could provide supplementary functions. However, it could not be denied, it seems to me, that in doing so, they are merely shifting the government's management responsibility onto fishermen. Further, as there was no mention of the feedback management system on fisheries, which is considered to form the basis of community-based management, there is much to be expected in the future discussion on practical basis.

On the other hand, "Precautionary approach" has been promoted, centering on FAO, with a view to hold in check the deterioration of stock and ensure its recovery. However, doubts have been expressed by more than one regional fisheries organization about the contents of the provisions of Appendix II of UNIA. Thus it does not seem to be effective remedy for the improvement of stock management method.

### 3. Situation in the areas surrounding Japan

Japan has bilateral fisheries agreements with Russia, the Republic of Korea, People Republic of China, respectively, and issues reciprocal fishing permits and cooperate in management of straddling fish stock. With respect to the Sea of Japan (called "Eastern Sea" by the ROK), a regional fisheries management organization consisting of Japan, the ROK, China, and Russia needs to be established as the fishery stocks are being used diversely by those countries. In bilateral consultations as well, the possibility and need to discuss such an

organization have been raised by more than one country, including Japan. However, at present, any substantial framework of international management in which all these countries concerned can participate has not been built up yet.

Several possible causes can be considered for this difficulty. One possible obstacle is that the goal of fishery policy of the countries involved differ substantially from one to another. Japan is interested in stabilized and sustainable utilization of marine resources, while other countries attach greater emphasis on expansion of fishing activities. This is closely linked to fishing capacity management of how to harmonize the differences in developing stages in fishing technology with the management system of the administration among States concerned.

On the whole, the present status of fish stock does not provide an optimistic outlook. With respect to bottom fish population which is now on a downward trend or stays at low levels, Japan is positively coping with hatching and releasing projects, while China is striving to strengthen protection of spawning ground. As a matter of fact, recovery, although gradual, is being witnessed for some fish species. However, destruction of spawning ground and nursery ground by man-induced causes such as artificial development of coastal zone or marine pollution from land-based causes or large-volume catch of juveniles for use in aquaculture still continue, making environmental rehabilitation(/mitigation) an urgent task to be implemented.

#### 4. Issues facing the Southeast Asian region

##### a. Catch Data

In the areas under national jurisdiction of SEAFDEC member States, including Japan, Multi-Species Utilization has been implemented thoroughly, which naturally leads to formation of fishing communities.

Furthermore, the presence of artisanal and seasonal small fishing practices further complicates the implementation of fisheries management programs. In the case of Japan, catch landing statistics are required, and the license system is adopted for major fisheries. Among conditions to obtain license, fishermen are obliged to submit their catch reports which should include catch quantities, fish species, number of days fished and operation position. In this sense, catch data is relatively well established. Unlike in Japan, major catch data are lacking in the Southeast Asian countries over a long period due to shortage of human and financial resources.

This obviously constitutes a fatal flaw to the implementation of stock management. When I exchanged views with a number of officials from this region at the first meeting of the SEAFDEC Statistics Working Group, I stressed the need to improve the data collection system expeditiously and reinforce education and publicity activities for fishermen regarding the need to make adequate data available.

It is essential to grasp the stock trend accurately from the viewpoint to decide on fishery policy, stabilize fishery house keeping and ensure food security for domestic consumption. At least, fishery statistical data covering catch quantities, number of fishing vessels or fishermen by fish species or by colony. In addition to this, more precise estimation of stock trend would become possible if scientific data such as size composition are collected by MFRDMD and/or TRD.

Concerning data requirement, its contents were discussed in detail with the participation of developing nations, and specific items were presented for each level at FAO Technical Consultation on Measurement of Fishing Capacity WG2, held in Mexico City last December. I would like to draw your attention to the documents of the meeting for your reference.

#### b. Boundaries

The issue to be taken up after catch statistics would be that of boundaries with adjacent waters. The issue of boundaries could develop into a political issue in some cases because boundaries of semi-closed areas close up each other as they further advance into the offshore area, in addition to the difficulty to establish boundaries due to complex coastal shape. Although it is not easy to find solution to this issue, the situation in the Mediterranean Sea and the areas around Japan would probably present a considerable reference. In the former, no demarcation of exclusive economic zone or median line has been established, with simply twelve miles from the coast being accepted and the area beyond the twelve miles being treated as the high seas.

With regard to the area where it is not possible to establish a median line and demarcation between Japan/ROK and Japan/China, a joint fishery management zone, which is not including any other political aspects was established to carry out management of fishing ground.

Based on my personal observation, such areas as the Thailand Bay are a common fishing ground of neighbouring states. Especially, as regards small pelagics, I consider it would be appropriate to enforce management in the form of joint management by States concerned. In this case, it will be necessary to require submission of reports on catch quantities to neutral international organizations such as SEAFDEC through appropriate and fair method. Following this approach, there is little or no possibility of occurrence of unregulated and disorderly joint management.

The Southeast Asian region also constitutes boundaries between the competence of regional fisheries management organizations. In the Indian Ocean, IOTC (Indian Ocean Tuna Commission) has already been in place, and for the Central Western Pacific, an early establishment of a regional fisheries management organizations is being considered by MHLC (Multilateral High Level Conference). On the other hand, APFIC has competence only for coastal and aquaculture, and with respect to straddling fish species and highly migratory fish species, the Southeast Asian region is still treated merely as an adjacent waters. With regard to MHLC, it is not possible to predict the course of its discussion because some countries argue that the Southeast Asian region should be included in the Convention area. At least the Philippines and Indonesia--both participants in MHLC-- support the position with the condition of excluding archipelagic waters that the area should be incorporated into the Convention area.

#### c. Stock Rebuilding

Lately, various types of development have been advanced at a fast speed in the coastal area of Southeast Asia, and there have been an increasing number of cases where beaches and shallow-water areas are transformed by artificial construction. Further, pollution issues as those experienced by Japan in the past have been occurring. Such a situation would not only cause losses of coastal fishery resources but also visibly hamper reproduction capability of fish stock, thus driving it further toward decline or collapse.

When fishery stock is abundant, there may be no need to make substantial effort for Stock Sharing. But, when the stock is declining, the codes and criteria concerning Stock Sharing should be made stringent. Expressed reversely, if Stock Rebuilding is successful, it might be possible to lower the hurdles of political demand for Stock Sharing.

Backside wetland, tideland or mangrove and weed bed and coral reef are essential as environmental components related to fisheries stock in the coastal zone. Shallow-water areas could function properly as spawning and/or nursery ground only when those components are properly in place. From past experience of failure, Japan has been coping with mitigation measures including formation of artificial tideland and seaweed bed. Based on my personal observation, I can cite a case where artificial tideland enabled an 80% recovery of ecological community in half a year, and almost 100% including large-size organisms after three years. I look forward that such mitigation measures in the coastal zone of Southeast Asia would be considered as well.

While environmental rehabilitation is an indirect means of stock recovery, I can point to promotion of ranching and releasing as a direct means of stock rebuilding. This approach is generally known as Stock Enhancement.

In Japan, the Japan Sea Farming Association(JASFA) is taking the lead role in technical development and promotion on breeding and releasing of fish species which suit the regional requirement respectively. For responding the regional requirements individually, the association has sixteen branches throughout Japan. The projects in these branches are covering diverse areas from subarctic to subtropical zones, and the process from fostering of parental fishes, spawning and hatching, nurturing the juveniles to the size eligible for release, and actual liberation into the natural environment are being implemented continuously. The results of these projects have been transferred to prefectural bodies, and hatching and releasing programs are actively promoted in major coastal areas throughout Japan.

## 5. Conclusion

It has been widely recognized that demersal fish stocks in the Southeast Asian region, especially in the coastal area, are in a stringent situation. Coastal fishermen, in some cases, are forced to move to offshore fishing ground in order to sustain their fishery house keeping or to contribute to national food supply. Further, shift from demersal fish-based fisheries into small pelagics which have relatively high stock elasticity should also be considered. There may be the possibility in the future to advance into distant-water fisheries in accordance with the development of fisheries, including accumulation of capital.

In case transition is intended from coastal fisheries to offshore fisheries or from demersal fishes to pelagic fishes, joint regional and global stock management will be required, and each State is required to straighten up its catch statistics as the minimum obligation to such regional or international organization. Obviously, such a development would harshly oppress entrepreneurial management of fishermen in terms of stock management costs for semi-artisanal fisheries, although pressures are not so severe for large-capital fisheries operating primarily for earning foreign exchanges.

There are no clear-cut international standards in management of shared stock, and framework of management has been constructed over a long span of time on a regional basis

after numerous compromise. In the mean time, many fishery stocks suffered decline.

Further, introduction of stock management usually results in control of fishing activities mostly to the discouragement of fishermen. Therefore, it is difficult from realistic point of view to impose control on fishermen without giving them positive future outlook.

It is on the basis of such a perspective that I touched on the possibility of environment rehabilitation and fish farming. As another possibility, one can consider promotion of inland-water fisheries and aquaculture. Especially in case reduction of fisheries production and decline in fishery income is anticipated because of the regulation of fisheries in the coastal area and joint management area, consideration of the possibility of inland-water fisheries must provide a great hope for fishermen.

On a global scale, reduction of fishing capacity is required under the FAO Plan of Action for the management of fishing capacity, and abolition or regulation of illegal unregulated and unreported (IUU) fisheries is called for. Fisheries in some of the Southeast Asian areas are Unregulated and Unreported. The work to develop FAO international plan of action concerning IUU, due to start this year, is sure to affect SEAFDEC member States.

In this circumstances, the establishment of preliminary branch to examine the promotion of inland water fishery and aquaculture by the decision of SEAFDEC deserves high evaluation as an practical effort to reduce the burden on coastal fisheries and to develop a further production of fish.