

Cooperation on Joint Management and Utilization of Fisheries Resources in the East China Sea



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— **ZHANG Chang Ik** As marine resources have declined across the world, fishery production has been in a downturn as well. Korea has seen the lowest output of coastal fishing in 44 years, and Japan in 60 years. This is a combined result of the overexploitation of marine resources and the destruction of the marine ecosystem. In this session, marine specialists will discuss issues regarding how the marine resources in the East China Sea, one of the most productive bodies of water in the world, should be shared and used.

— **Rokhmin DAHURI** As global climate change worsens, changes in marine resources and the deterioration of fishery production are expected to emerge. World leaders have made a number of attempts to tackle the issue. The East China Sea, which borders with the mainland of East Asia and the Pacific Ocean, is shared by Korea, China, Japan, and Taiwan. With the predominant movement of the Kuroshio Current combined with nutrients flowing from the Yangtze River, the sea has an abundance of marine products. For example, the East China Sea accounts for 36 to 54 percent of the Chinese fishery

production in total, which is the highest among its bodies of water, which include the South China Sea, the Yellow Sea, and the Bohai Sea.

Korea, China, Japan, and Taiwan have actively participated in fishery production in the East China Sea. According to a 2016 report released by the Food and Agriculture Organization of the United Nations(FAOU), the fishery output of the four countries is 14.84 million tons, 1.72 million tons, 3.69 million tons, and 930,000 tons respectively. Aquafarming has greatly increased in coastal waters. The existing threats to peaceful and sustainable development of the East China Sea include overfishing, especially Illegal, Unreported and Unregulated(IUU) fishing, marine contamination caused by bordering countries, the destruction of marine ecosystems such as seaweed forests in coastal waters, a decrease of species diversity, erosion, climate change, and maritime safety. Especially problematic are conflicts regarding coastal area utilization and disputes over maritime boundaries(including Dokdo Island).

The marine ecosystem in the Yellow Sea is being severely damaged as 17 million tons of waste wa-

ter flow into it every year. Since 1965, 2.2 million gallons of oil have been spilled into the Asia Pacific area, and 2.12 million gallons, around 96 percent of the total, have been released by East Asian countries. The growth in population and income in these countries led to soaring demand for space, natural resources, and environmental services, exceeding the carrying capacity of the marine environment, which is a fundamental cause for these environmental problems. Other reasons include an insufficient understanding of the strategic importance of marine and fishery resources, few alternatives to the poor livelihoods of coastal communities, and a lack of eco-friendly technologies provided for coastal residents. The greed shown by related government officials and industries is also a contributing factor. The lack or underestimation of the market evaluation of marine ecosystem services, the global food crisis, a loosening of the monitoring and management of marine resource, and a failure of related institutions are also the real culprits. All of these problems, combined together, exceeded the environmental carrying capacity of the ocean and created extremely stressful conditions regarding marine resources.

In this sense, Jeju Island, as a carbon-free island, could set a good example for well-managed coastal waters. The sea boundaries of the East China Sea and related policies have to be established according to the United Nations Convention on the Law of the Sea, or UNCLOS, and an evaluation of the potential of natural resources in the international waters of the East China Sea has to be conducted. Based on the results of that evaluation, a fishing quota for each country in East Asia has to be decided. Nano-bio-technologies to increase the productivity and sustainability of marine resources, sustainable fishery technologies, and contamination control technologies have to be developed. Moreover, resilience in the face of natural disasters has to be enhanced, efforts to restore damaged marine ecosystems should be made, measures to alleviate the effects of, and to adjust to, climate change need to be drawn, and mechanisms for the sustainable development of ma-

rine resources should be created.

— **KIM Su Jeong** Traditionally the sea has provided humans with food and a means of transportation. The East China Sea is cooperatively shared and utilized by Korea, China, and Japan. After UNCLOS was implemented in 1994, the three Asian countries proclaimed an Exclusive Economic Zone(EEZ). However, as the northeastern sea is narrow and each country's EEZ tends to overlap, consultations between these countries are needed. Korea and Japan entered into an agreement on the utilization of their waters in 1999, and as for Korea and China, an agreement was reached in 2001. Currently, as the demarcation of the EEZ is difficult to implement, the three countries are jointly using the marine resources in the overlapping marine areas, but a new fishery order between the three countries has to be established in the future based on UNCLOS. According to the Food and Agriculture Organization of the United Nations(FAOU), the Northeast Asian Sea belongs to Major Fishing Area 61, which boasts the largest fish catch in the world as cold and warm currents meet to create optimal conditions for the fishery. In 1950, four million tons of fish were caught in the Northeast Asian Sea, but since then output has rapidly increased to mark a record-high 24 million tons in 1988, though this number has dropped in recent years. Notably, the recent fish catches of Korea and Japan have massively fallen, while those of China have soared.

The exploitation of marine resources in the ROK-China Provisional Measure Zone has intensified. Currently, there are five provisional zones according to bilateral agreements between Korea, China, and Japan, but the proper management of the resources of those areas is nonexistent and it is proving difficult for one country to exclusively manage its zone. Since such intensive fishing could easily lead to a depletion of marine resources, the three countries need to build a cooperative structure to effectively manage the resources which are their common interest. In particular, cooperation between coastal countries on the use of straddling fish stocks

is needed. For example, the allowable catch of major fish stocks in the Barents Sea is decided by the Joint Norwegian-Russian Fisheries Commission. Since 2001, a series of studies on the co-management of the sea has been conducted at home and abroad, and among these are several studies on fishery co-management between Korea, China, and Japan. When the Korean-Japanese Fisheries Agreement was drawn up, Korea agreed to invest ten billion Korean won with Japan investing one billion Japanese yen to build a marine resources management center in Jeju Island, but since 2000 the implementation of the plan has stalled. A new order for sustainable fishery resources management needs to be created in the future.

— **Miguel BERNAL** Regarding the co-management of the East China Sea, lessons can be learned from the experience of the General Fisheries Commission for the Mediterranean(GFCM). The GFCM was first established in 1949 within the framework of the FAOU and started as a regional fishery management institution. The Mediterranean Sea had similar problems to those of the East China Sea. The regional governance on fishery species was too weak. Later, as more parties saw the need to address the problem by establishing a specialized institute, any country which wanted to join the Mediterranean Sea fishery had to agree to abide by these compulsory rules. In 1997, the institute was transformed into a commission with an executive office running its own budget, and it introduced a performance evaluation system in an effort to strengthen its governance.

The GFCM was built by an agreement between the representatives from different countries just as other management institutes, including the Indian Ocean Tuna Commission(IOTC), were established. In its early years, the commission did not run its own executive office, but in retrospect the efficient working of the executive office was essential in carrying out the commission's tasks. The executive office was situated in Italy since the headquarters of the FAOU was also there and no other countries were sponsoring the organization. The budget was procured from

the national spending budget and external sponsors. The mid-term strategy of the GFCM for the future is to promote its member countries' capabilities and cooperation, to restore fishery resources, to support the livelihood of coastal communities, to prevent IUU fishing, to restore the health of the marine ecosystem, and to enhance fishery productivity. Dialogue between member countries to increase their capabilities and cooperation has been crucial in alleviating competition among themselves and adopting a fair decision-making process. As such, a powerful institute and its control are needed to draw an obligatory decision between the countries. Fishery management also requires the cooperation and will of member countries to balance out various situations such as the current conditions of the marine ecosystem, fishing productivity vis-a-vis marine resources, and maritime contamination.

— **CHO Junghee** Over the last 15 years, there has been much talk about co-management of the Northeast Asian Sea, and now it is time to have a more specific discussion on the issue. In other words, the actual subjects and the budget to continue to co-manage the sea have to be specifically discussed. Fortunately, the Jeju Forum for Peace and Prosperity has provided a venue for discussions on continuous co-management to take place. To implement actual and specific plans for co-management of the sea, Jeju Special Self-Governing Province should come up with specific plans for co-management and conduct consultations on how to carry out these plans with the central government in the future.

— **ZHANG Chang Ik** Although the need for cooperation between Korea and China on the utilization of the sea has been felt for the last 30 years, specific plans have yet to be drawn up. China still does not abide by its total allowable fish catch, as Chinese fishing boats illegally overfish and damage the marine ecosystem in their own territory, as well as that of neighboring countries. This situation must be managed and rectified. To form a marine management institute with the help of the FAOU could be an alternative when progress on building an agreement

for a co-management body between three Asian countries is negligible.

Keywords

East China Sea, marine resources, co-management, cooperation



Policy Implications

- The GFCM was able to gain the authority to procure external funds through its own budget, set up an executive office, and put together an exclusive framework program after it developed from a managing institute to a commission, raising its effectiveness. The fact that the member countries' capabilities and dialogue among themselves have been promoted was crucial in establishing a fair decision-making process between member states.
- To adopt compulsory rules for countries, a strong institute specializing in said issues is needed; the institute has to be able to exert significant influence to balance out the health of the marine ecosystem and productivity vis-à-vis human pressures through maritime management. Accordingly, a fishery co-management body between Korea, China, and Japan has to be established to draw up binding decisions and to maintain a balance between the health of the marine ecosystem and productivity in the East China Sea.
- Creating an implementation structure and budget assistance is essential to promote cooperation between Korea, China, and Japan. Over the last 15 years, there have been many discussions on the need to establish a fishery co-management system, and it is time to materialize them into a working body. As such, now is the time to make specific plans and find a common ground to build a co-management institute through the Jeju Forum for Peace and Prosperity.
- Plans to materialize a regional maritime co-management institute with the help of the FAOU should be given significant consideration if the establishment of a co-management body is difficult to realize despite the individual efforts of Korea to make use of the examples of the GFCM.