

Korean Policy for Overseas Fisheries*

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I. Introduction

The 1982 United Nations Convention on the Law of the Sea came into effect on 16 November 1994. The Exclusive Economic Zone(hereafter referred to as EEZ), one of the most important fisheries provisions in that Convention, has become a customary international regime that about 110 countries out of 143 coastal countries including the United States have declared and implemented the 200 mile EEZ since 1977. The recent entry into force of the Convention does not seriously affect the international fisheries community.

By introducing the EEZ, some countries have rapidly developed their fisheries and coastal states have gained significant economic benefits. At the same time, several distant-water fishing nations have endured large economic losses. Fishing efforts have been increased on the high seas after the introduction of EEZ, making fisheries conservation on the high seas a serious problem.

On the high seas there has been continuing investment in large-scale vessels, causing a significant growth in fishing efforts. During recent years, the pressure on high seas fisheries, brought about by systematic and sustained over-fishing practices has grown considerably. The problem of over-fishing has become an international responsibility requiring an urgent resolve.

At several international forums, including the 1992 United Nations Conference on Environment and Development(UNCED), the 1992 Cancun Conference on Responsible Fisheries, and the adoption of Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks(hereafter referred to as UN Fish Stocks Agreement) in 1995, the international community has expressed its concern about the significant overexploitation of the world fisheries and the potential economic losses incurred by it.

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Today, the international community now recognizes that excess fleet capacity and overinvestment undermine fisheries conservation and management efforts, threaten the long-term sustainability of fisheries, and in turn, harm fisheries contribution to global food security.

On August 4, 1995, the UN Fish Stocks Agreement was agreed upon in the 6th Session of the UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks at the UN headquarters. The Agreement will be adopted and signed at the 50th UN General Assembly Conference in December 1995. When the Agreement comes into effect, high seas fisheries will be strictly regulated by new regime as well as the existing regional fisheries organizations. The entry into force of the Agreement will modify the traditional principle of freedom of fishing on the high seas and will have a serious effect on Korean distant-water fisheries(hereafter referred to as DWF). The purpose of this paper is to look at the current trend of world fisheries, to identify some important factors affecting the current and future overseas fisheries of Korea, and to suggest a national fishery policy necessary for a sustainable development of fisheries resources in the future.

II . Recent Trend of World Fisheries

World fisheries production has steadily increased until 1989 when production reached 100.3 million tonnes. Production declined in 1990 and 1991 to 97 million tonnes, but then increased to 98.7 million tonnes in 1992, and to 101.4 million tonnes in 1993. The increase in total production between 1992 and 1993 resulted almost entirely from aquaculture.

Marine fisheries production reached a peak of 86 million tonnes in 1989, and since then has decreased three years consecutively for the first time in the history of fisheries. This decrease is due primarily to overexploitation of global fishing resources. According to the data provided in FAOs "Review of the State of World Fisheries Resources ; Marine Fisheries", more than 69

<Table 1> World Total Fish Production Compared with Aquaculture, 1985 - 1993 (unit; 1,000 tonnes)

| Year | Catch(A) | Aquaculture(B) | Ratio(B/A ; %) |
|------|----------|----------------|----------------|
| 1985 | 86,378 | 7,729 | 9.0 |
| 1986 | 92,845 | 8,807 | 9.5 |
| 1987 | 94,402 | 10,151 | 10.8 |
| 1988 | 99,086 | 11,210 | 11.3 |
| 1989 | 100,311 | 11,497 | 11.5 |
| 1990 | 97,556 | 12,121 | 12.5 |
| 1991 | 97,052 | 12,781 | 13.2 |
| 1992 | 98,113 | 13,921 | 14.2 |
| 1993 | 101,417 | 15,921 | 15.7 |

Source : FAO

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< Table 2 > Percentage of Fully Fished, Overfished, Depleted and Recovering Stocks, 1992 (unit : %)

| Area | Demersal | Pelagic | Crustaceans | Molluscs |
|---------------|----------|---------|-------------|----------|
| NW Atlantic | 75 | 94 | 95 | 83 |
| NE Atlantic | 79 | 72 | 83 | 82 |
| WC Atlantic | 59 | 68 | 0 | - |
| EC Atlantic | 95 | 97 | 94 | 93 |
| Med+Black Sea | - | - | - | - |
| SW Atlantic | 72 | 77 | 95 | 93 |
| SE Atlantic | 76 | 80 | - | - |
| W Indian | - | - | - | - |
| E Indian | - | - | - | - |
| NW Pacific | 93 | 80 | - | - |
| NE Pacific | 71 | - | 95 | - |
| WC Pacific | 95 | - | 78 | 0 |
| EC Pacific | 0 | 0 | 90 | 0 |
| SW Pacific | 77 | - | 62 | 64 |
| SE Pacific | 60 | 70 | - | - |
| Antarctic | - | - | 0 | - |

Note : - indicate status of stocks unknown

Source : FAO

< Table 3 > Total Fish Production in 1990 - 93 with Forecast of Supply to 2010 (unit : million tonnes)

| Year | Capture | + | Aquaculture | = | Food | + | Feed | = | Total |
|------|---------|---|-------------|---|---------|---|------|---|-------|
| 1990 | 57.8 | | 12.1 | | 69.9 | | 27.7 | | 97.6 |
| 1993 | 56.5 | | 15.8 | | 72.3 | | 29.0 | | 101.3 |
| | (+3.5) | | (+4.2) | | (+7.7) | | | | |
| 2000 | 60.0 | | 20.0 | | 80.0 | | 29.0 | | 109.0 |
| | | | (+11.0) | | (+11.0) | | | | |
| 2010 | 60.0 | | 31.0 | | 91.0 | | 29.0 | | 120.0 |

Source : FAO

percent of the fish stocks located in various areas of the worlds oceans are either fully to heavily exploited(44%), overexploited(16%), depleted(6%), or very slowly recovering from overfishing(3%), and therefore are in need of urgent corrective conservation and management measures.

The projections provided in FAO's "Agriculture : Towards 2010" indicate that to maintain present per capita fish consumption levels of 13.0 kg per year to the year 2010, 91 million tonnes of food fish would be required. This requires producing an increase of 19 million tonnes of food fish over the 1993 level of 72.3 million tonnes.

Such an increase in the production of food fish is considered feasible only if aquaculture production could be doubled in the next 15 years, and if significant improvements could be achieved in the conservation and management of fisheries, through stock rebuilding and more rational harvesting practices.

III . Current Status of Korean Overseas Fisheries

In Korea, the term, "overseas fisheries" is interchangeable with DWF; sometimes overseas fisheries can mean both DWF and overseas fisheries joint ventures. In this paper, usage of overseas fisheries will be limited to DWF defined, according to the Korean Fisheries Act, is fisheries operated in the waters other than the East Sea, Yellow Sea and East China Sea. Launched in 1957 with tuna longline fishing in the Indian Ocean, Korean DWF has grown dramatically in production during the last two decades. Production of DWF in 1994 was 887 thousand tonnes, comprising 26 percent of Korea's total fisheries production. The major species are tuna, Alaska pollack, and squid which account for about 83 percent of total DWF production. In 1977, the Korean DWF faced a crisis following the declaration of 200 mile EEZ by the United States and the former USSR. At that time, 850 Korean DWF vessels caught 596 thousand tonnes. In 1994, 642 vessels caught 887 thousand tonnes, increasing production is 1.5 times despite the decreased number of fishing vessels. This was possible with the introduction of the tuna purse seiner, the launch of trawl fisheries in the Russian waters, and squid fishing in the coastal waters of South America.

Korean DWF is heavily dependent on the high seas. Fifteen percent of total DWF fish production of Korea comes from the high seas. The FAO estimates that on average about eight percent of world fisheries production is harvested from the high seas. The remaining 85 percent of the Korean DWF production comes from the waters of coastal countries after paying high access fees.

Currently, the number of licensed Korean DWF vessels is 642 which are divided into 248 vessels for tuna fisheries, 239 vessels for trawl fisheries, 121 vessels for squid jigging fisheries, and 34 vessels for other fisheries. The major coastal countries where Korean DWF vessels fish include Russia for Alaska pollack ; Argentina, New Zealand, the Falkland Islands, and Peru for squid

<Table 4> Production of Korean Fisheries by Fields

(unit : 1,000M/T)

| Year | Total | Coastal & Offshore | Marine Culture | Inland | Distant - Water Fisheries | | | |
|------|-------|--------------------------|-------------------|--------|---------------------------|---------|----------|--------|
| | | | | | Subtotal | Pacific | Atlantic | Indian |
| 77 | 2,412 | 1,308 | 491 | 26 | 596 | 403 | 118 | 75 |
| 80 | 2,410 | 1,372 | 542 | 39 | 458 | 324 | 85 | 49 |
| 83 | 2,793 | 1,487 | 644 | 47 | 615 | 497 | 70 | 48 |
| 86 | 3,659 | 1,726 | 947 | 57 | 929 | 756 | 117 | 56 |
| 89 | 3,319 | 1,510 | 848 | 36 | 930 | 675 | 213 | 42 |
| 92 | 3,289 | 1,295 | 936 | 34 | 1,024 | 714 | 178 | 30 |
| 94 | 3,477 | 1,487 | 1,072 | 31 | 887 | 729 | 133 | 25 |

Sources : Statistical Yearbook of Agriculture, Forestry and Fisheries of Korea

jigging fisheries ; and Kiribati, French Polynesia, and Papua New Guinea in the South Pacific for tuna fisheries. Other trawl fisheries operate in Indonesia, New Zealand, Oman, Angola, and Surinam.

IV. Difficulties Faced by Korean Distant-Water Fisheries

Korea has good conditions to develop distant-water fisheries. The conditions include accumulated experience of fisheries management, technology, and skillful fishermen with about 40 years of distant-water fisheries history. There are 4 universities, 1 junior college and 8 high schools in Korea for fisheries education organizations. Moreover, a neighboring country to Korea, Japan is the largest consumer of fish products and an export market for Korean fisheries products. In addition, the Korean domestic market for fisheries products is growing spurred by expanding demand. About 74 % of total DWF catches were provided for domestic consumption and the remaining 26 % were exported to other countries. However, recently Korean DWF are encountering growing unfavorable market condition, both in inside and outside of the country.

A series of international conventions, such as the UN Fish Stocks Agreement expected to be adopted at the 50th UN General Assembly Conference in December 1995, the Code of Conduct for Responsible Fisheries prepared by FAO, and the Re-flagging Agreement, are expected to be implemented in the near future. These new international fisheries controlling rules together will influence on the existing practices of DWF.

These agreements are desirable international regimes to ensure the conservation of high seas fisheries resources through the management of high seas fishing by regional fisheries organizations, mutual monitoring of fishing activities, imposition of responsibility on flag states, and the distribution of fisheries information data. However, there are some concerns that these systems will apply excessive regulation of fishing operations rather than achieving a balance of two objectives, conservation and rational utilization of the high seas resources.

The import liberalization of fisheries products is an urgent matter for the Korean distant-water industry. The Korean government has made a commitment to General Agreement on Tariffs and Trade(GATT) that the import of fisheries products will be completely liberalized by July 1, 1997. The Korean government is gradually implementing its commitment based on its import liberalization schedule. As a result, Alaska pollack fisheries and squid fisheries, which occupy about 54 percent of total DWF production and currently monopolize the domestic market, should experience some difficulty in the domestic market in competing with imported products following

the import liberalization.

One of the major internal problems facing Korean DWF is the old age of its fishing fleet. Of the total distant-water fishing vessels, about 74 percent are more than 11 years old and 29 percent are 21 years old or more. A second internal problem is the shortage of crews and high labor cost. Since Korean economic development has raised living standards, young Koreans no longer want to become fishermen. To solve the shortage of fishermen, the Korean government now permits employment of foreign crews.

V. New Policy for Overseas Fisheries

1. Strengthening of International Cooperation

To ensure sustainable long-term fishing activities in the foreign jurisdictional waters, the Korean government has considered ways and means of international fisheries cooperation to improve the mutual benefits of the countries concerned.

The Korean government will provide more technical assistance, financial and economic assistance in the area of aquaculture and fisheries, as well as a fish processing and fishing vessels repair facility for use by developing coastal states. Korea has also established fisheries agreements with 14 countries, and plans to expand existing fisheries agreements.

Since high seas fishing will be managed by regional fisheries organizations, Korea will accede, as soon as possible, to regional fisheries organizations, in addition to the 10 fisheries organizations that Korea has already joined. Furthermore, Korea will strengthen its cooperation with the regional fisheries bodies carrying out scientific research to conserve fisheries resources.

An important part of this cooperative effort will be to train fisheries scientists and negotiation experts for participating international meetings of regional fisheries organizations as well as training fishing inspectors and scientific observers for the inspection activities of regional fisheries organizations.

In addition, implementing the new international agreements, such as the UN Fish Stocks Agreement will require revision of the Korean domestic laws and regulations. This will also require programs to guide and educate fishermen about the new international agreements, and require advance preparation for establishing and operating vessel monitoring systems.

2. Localization of Distant-Water Fisheries

The Korean government will gradually reduce the number of licensed fishing vessels for such

kind of fisheries as those likely to face difficulty in maintaining overseas fishing grounds sustainably and leads fishing vessels to localization through investments in the coastal countries and joint ventures. And it is necessary to permit employment of foreign crews to make up any shortage of domestic crews.

3. Restructuring of Distant-Water Fisheries

Even though the Korean distant-water fishing industry as a whole may still have a future, not all sectors have the same opportunities. Some fisheries may be able to achieve a certain limited expansion while others may not be able to overcome unfavorable circumstance any longer.

In this respect, the first step within this new policy would be to restructure the existing distant-water fleets. This is needed not only to overcome the present difficulties of the industry, but also to ensure coherent long-term solutions as a basis for future qualitative, rather than merely quantitative development.

It is very difficult to suggest acceptable alternative methods of restructuring because of the complexities of the problems facing the industry. Nevertheless, when evaluating future policy, one must consider which sectors of industry deserve first priority. In selecting the major fishery sectors, the criteria involve, among others, the age structure of the existing fleets, the availability of resources, and marketing conditions.

4. Development of Joint Ventures

Of many types of international cooperative arrangements available to coastal nations for harvesting their fishery resources, joint ventures are most advantageous for countries wanting to develop their fisheries industry. This fact is being recognized by most nations with exploitable coastal resources. Therefore, it is not surprising that the trend towards joint ventures is growing and that foreign investors frequently find it the only way to gain access to the desired fishing grounds.

The time has come for the development of joint ventures by both government and companies. Recently, the global extension of national jurisdictions has been completed and new regulations on high seas fisheries are increasing. Joint ventures should be encouraged by consistent and comprehensive incentives for the sustainable development of distant-water fisheries. The following items are the options for the formulation of a government policy.

First, financial support is needed, because the establishment of a joint venture requires a sizable capital investment, especially in countries which lack land-based infrastructures. The

financial weakness of Korean companies has impeded their establishment of ventures in those countries even when the potential benefits are great.

Second, there is a need for special treatment in the importing of joint venture products. The government should encourage joint venture companies to bring their products to the domestic market. To ease the problems of marketing, the present custom duty rate should be reduced and some duty-free imports granted within annual quotas.

Third, the incentives for overseas investment should be reinforced. If investors are to be properly motivated, the various incentives and regulations should be incorporated in a single, easily accessible program to encourage investment.

V. Conclusion

Until the extension of national jurisdiction in the mid-1970s, the Korean government had placed a high emphasis on the development of distant-water fishing industry and increase catch. During that time, the major government strategy was expansion of the fishing sector through financial assistance for the purchase of vessels. The shock of extension of marine jurisdiction has caused Korea to look more closely at other issues related to distant-water fisheries.

Faced with this unprecedented decline in distant-water fisheries since the mid-1970, the first task was to minimize the access restrictions imposed by coastal states and look for alternative fishing grounds that might be exploited more economically. The Korean government policy to the new regime is successful. Since the emergence of the 200 mile regime in the mid-1970s, Korean distant-water fisheries have adapted to the new regime in various ways such as increase of bilateral arrangements and high seas fisheries.

Recently, the distant-water fisheries are facing growing regulation of high seas fishing and opening of domestic fisheries markets. To overcome these difficulties and to promote continuous development of the distant-water fisheries, the government is preparing some new policy measures. The main programs so far introduced include the intensification of cooperation with coastal states, the development of new fishing grounds, and the rationalization of management of fishing companies. Such development programs will contribute to the continuous employment of fishing vessels and crews and to the easing of financial difficulties of the companies.

Fisheries resources are self-renewable, and we can exploit them permanently with appropriate management schemes. That is, as stipulated in the 1982 UN Convention on the Law of the Sea, management of fisheries resources with the best scientific evidence available and harmonization

between "conservation" and "utilization" issues. Therefore, the Korean government is willing to participate in international cooperation and carry out "transparency" and "responsibility" in fisheries activities.

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<요 약>

韓國의 海外漁業政策

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1970년대 중반 세계 주요 沿岸國들이 排他的 漁業水域 또는 經濟水域의 新포를 통하여 海洋管轄權을 확대할 때까지 한국은 遠洋漁業의 발전과 어획량 증대에 박차를 가하였다. 그 당시 정부의 주요 정책은 재정 지원을 통하여 遠洋漁船의 선복량을 확충하는 것이었지만, 새로운 海洋法秩序가 도입된 후로는 遠洋漁業에 대한 지원 정책을 재검토하지 않을 수 없게 되었다. 그 당시 한국의 遠洋漁業에 가해진 압박을 타개하기 위하여 沿岸國의 규제를 최소화하는 노력과 함께 경제성 있는 代替漁場의 개발에 주력한 결과 성공을 거두었는데, 그것은 바로 水産資源 保有國과의 雙務協定 체결을 통한 어업의 계속과 더불어 公海漁業으로의 전환이었다.

최근에 한국의 遠洋漁業이 당면하고 있는 현안은 公海漁業에 대한 國際社會의 규제 강화와 더불어 국내 수산물 시장의 개방이라는 內憂外患이 겹친 危機狀況이다. 이러한 난국을 타개함으로써 遠洋漁業의 지속적인 발전을 추구하기 위하여 韓國政府는 새로운 전략을 마련하였는데, 그 구체적인 내용은 다음과 같다.

첫째, 자원을 보유하고 있는 沿岸國과의 협력을 강화함과 동시에, 國際水産機構에서의 적극적인 활동을 전개하는 것이다. 현재 한국은 14개 沿岸國과 쌍무적 漁業協定을 체결하여 기술 이전 및 재정 지원을 통한 共同繁榮을 추구하고 있으며, 10개 國際水産機構에 가입하여 水産資源의 보존과 海洋環境의 보호에 노력하고 있다.

둘째, 遠洋漁船의 감축과 沿近海漁業 구조 조정을 통한 합리적인 수산업 체제를 구축해 나갈 것이다. 즉, 遠洋漁業의 양적 팽창보다는 장기적인 안목에서 질적인 수준을 제고함으로써 안정적인 산업으로 내실을 기할 수 있도록 경영의 합리화와 같은 업계 자체의 체질 개선 노력을 지원할 것이다.

셋째, 현대의 海洋法秩序 하에서 韓國遠洋漁業의 활로는 주로 資源保有國과의 合作事業에서 찾을 수 밖에 없다. 이것이야말로 沿岸國과 遠洋漁業國에게 공통적으로 이롭다는 사실이 입증된 것이기 때문이다. 따라서, 遠洋漁業을 海外合作事業으로 전환하는 데에 있어서 정부가 지원해야 할 부분은 다음 세 가지로 요약된다. 즉, 장래성 있는 사업 분야에 대한 적극적인 財政支援, 생산된 수산물의 國內市場搬入에 대한 특별한 배려, 그리고 기업의 海外投資意慾을 고취시키는 정책의 수행이다.

水産資源은 그 자체가 再生産性을 갖고 있기 때문에 합리적으로 保存管理한다면 영속적인 이용이 가능한데, 이와 같은 이념은 1982년 유엔 海洋法協約에서도 최선의 과학적 증거로서 “保存”과 “利用”의 조화를 유지하는 것으로 구현되어 있다. 따라서, 韓國政府도 그러한 차원의 國際協力에 기꺼이 동참함과 동시에, “透明性”과 “責任”을 이행하는 어업 활동을 보장하기 위한 제도적 개혁을 진행 중이다.