

Revisiting Changing Patterns of North Korea's Fisheries Production: 1990s-2000s

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ABSTRACT

Unprecedented economic crisis in 1990s led North Korea's fisheries sector severely stricken to a degree of “collapse”. In response to the crisis, and especially since Kim Jong Il's ascendance to supreme leadership in 1998, North Korea made much efforts to address the challenge mainly by rapid growth of fresh-water aquaculture and coastal mariculture, while abandoning traditionally acclaimed fishing industry. As a result, most fisheries production organizations and agencies have experienced fundamental change of their natures and functions. On the one hand, state-owned fisheries companies, which had led North Korea's fishing industry, have been transformed from fishing bases to “growing bases”, while many fresh-water aquaculture companies and coastal mariculture companies have been constructed or reconstructed by Kim Jong Il's directions. On the other hand, in the name of “solving food problem by oneself”, and under the banner of the “Military-first” politics, prerogative organs from the Party and the military have been monopolizing the bulk of fisheries production sector, isolating it from North Korea's “people's economy”. These two aspects of Kim Jong Il's legacy left behind North Korea's fisheries sector seem to be continued in the Kim Jong Un's era, which was started with the senior Kim's death in December 2011.

Key Words: Military-first politics, fisheries company, fish farming company, coastal mariculture, Joint Corporation, the 3rd Seven-Year Plan, Self-reliance economy, On-spot Guidance, trade companies, foreign currency earnings

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1. Introduction

With the ending of Kim Jong Il era caused by his death in December 2011, the Democratic People's Republic of Korea (DPRK, hereinafter 'North Korea') embarked on the leadership of Kim Jong Eun, Kim Jong II's son and his heir apparent. What of legacies did the Kim Jong Il leave to his son, especially in North Korea's fisheries sector?

From the perspective that the new leadership began its life on the basis of accumulation of long-time ruling practices of Kim Jong Il leadership rather than from a historical vacuum, and that no leadership be free of its predecessor's legacy, it would be meaningful to distinguish between darkness (*Yin*) and brightness (*Yang*) that have composed Kim Jong Il's fisheries policies, and evaluate its limitedness objectively--especially in such transformative period as this day, and in terms of future inter-Korean fisheries cooperation possibilities.

Predicated on this purpose, this paper attempts to reconstruct briefly the past two decades of North Korea's fisheries transformation, which have profoundly changed the seascape of North Korean fishery practices, while prospecting its future course based on some evaluation. Section 2 traces the formidably destructive collapse course of North Korea's fisheries sector occurred in the 1990s, focusing on not only its background and ramifications but also the outcomes created by such an event . Section 3 and 4 examines how the Kim Jong Il leadership--officially emerged in September 1998, but effectively in 1994-- responded to such an unparalleled event in North Korean fisheries history except for the Korean War period (1950-1953). While Section 3 examines the responses in terms of fisheries production sectors such as marine fishing, fish farming (sea and inland), and coastal mariculture with respective production facilities, Section 4 puts more attention on North Korea's fishery (production) management governance.

In final section (Section 5), the paper attempts to draw some implications on the issue of inter-Korean fishery cooperation, providing some predictions about future course of fisheries policy, which would be in the realm of Kim Jong Un leadership.

2. Fisheries Collapse and North Korea's Response in 1990s

2.1. *North Korea's Economic Hardship and Background of its Fisheries Collapse*

The 1990s of North Korea has been well known to international community

for its severest economic hardship and destructive food shortage.¹ Already foreboded in the latter half of 1980s, food shortage rapidly worsened reaching at the worst level even before the mid-1990s--for example, in 1993 to a degree that crippled North Korea's Public Distribution System (PDS), which was, as Haggard and Noland put it, "a powerful tool of social control", marking record-high shortage of 2.1 million tons. Kim Il Sung's death in 1994 combined with following years of floods and droughts snowballed North Korea's economic hardship, destroying ordinary lives of its people, even claiming several hundreds of thousands of people by hunger and mal-nutrition. The tragedy was a result of some combinations of external and internal factors: For external, the collapse of Cold War structure, and sudden curtails of aids from the former Soviet Union (Russia) and China; for internal, misperformance of its self-reliance ("*Juche*") economy, and some strategic choices including nuclear defiance to international community.

The economic misfortune dealt serious blows on North Korea's fisheries sector as well. The damages appeared, at first, as sharp fall of fisheries production (Table 1). Even in the mid-1980s, North Korea's fisheries production competed with its Southern rival--for instance, in 1985, the total fisheries production of South and North Korea recorded respectively 27.93 million tons and 27.0 million tons. When launching the 3rd Seven-Year Plan (1987-1993), North Korea set up its fisheries production target by 11 million tons. In 1993, however, only one-tenth of production target was met by production of 1.09 million tons--far left behind the earlier target.²

The depression of fisheries production was caused by collapse of fishing industry, which has occupied an overwhelming portion in North Korea's fisheries production by the turn of the 1980s.

Table 1. North Korea's Fisheries Production

(Unit: 10,000 M/T)

1960	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
46	77.3	93.1	130.4	170.0	178.1	145.5	105.2	70	91	63

Note: From 1960 to 1995, Ministry of Unification, Ministry of Marine and Fisheries, Republic of Korea.
From 2000 to 2010, Statistics, Korea

Combination of several factors led the fisheries collapse. The first one is related with over-fishing. In the golden age of its fishing industry, Kosong, one of (Northern) Kangwon Province's coastal counties, was able to catch 20-thousand and

¹ For a vivid description and thorough analysis on this subject, see to Hazel Smith (2005), *Hungry for Peace: International Security, Humanitarian Assistance and Social Change in North Korea*.

² Rhee and Suh. (2007) *A New North Korean Economy*, p. 81.

30-thousand tons of Alaskan Pollock per day in its winter season off the coast of East Sea. Over-exploitation of fish has already been felt in the late 1980s. In a speech delivered in March 1989, Kim Il Sung urged to his cadres in the economic sector, to make scientific calculation for appropriate annual pollock catch, apprehending sharp reduction of pollock catch by indiscriminate over-fishing at the time.³ In a report published in 1998, Food and Agriculture Organization of United Nations (FAO) attributed the pollock catch reduction to North Korean over-fishing.⁴ In the early 2000s, fishermen in Tongchon Fisheries Company, Kangwon Province, had no choice but change their jobs mainly because of disappearance of pollock and sardine, their two traditional main staples in the East Sea.⁵

Changes of North Korea's economic policy priority and external relations in the 1990s did also have direct impacts on the fisheries. In his address at the 21st Plenum of the Korean Workers' Party (KWP) Sixth Central Committee in December 8, 1993, Kim Il Sung admitted the failure of the 3rd Seven-Year Plan, while, at the same time, putting a great emphasis on the "three great revolutionary economic strategies", which was consisted of: agriculture-first, light industry-first, and external trade-first.⁶ This policy change deprived time and money from "fishing vessels modernization", contrasting with his earlier words that obsolete fishing boat was a factor bogging fisheries development down.⁷

Many literature including Kang et. al (2006), and Hong and Lim (2002) point out that fuel oil shortage and lack of materiel for fishing industry had directly impact on North Korea's fisheries sector. By the early 1990s, sailing rate of North Korean fishing vessels reduced at less than 30 percent. As a result, there emerged a new phenomenon that fishing vessels under supervision of the General Bureau of Distant Water Fishing (*Monbada Oopch'ongkuk*) in the East Sea had to supply fuel oil for operation or even fishing vessels from Japan, and then, returned their fees in kind such as hauled pollock.⁸ According to Valencia (1996), in 1994, North Korean

3 Kim Il Sung. (1989). "Regarding More Development of Fisheries Industries and More Production of Salt", in *Regarding the Management Issues of Socialist Economy (7)*(1997), p. 160. The book is selection of Kim Il Sung' addresses regarding North Korea's economic issues, begun to published annually by North Korea's Workers' Party after Kim Il Sung's death.

4 For details, see to FAO. (1998). "Democratic People's Republic of Korea: Report of the Fisheries Development Programming Mission", Working Paper6.

5 Tongil News (2002. 6. 4). "North Korea, Kangwon Province's Coastal Fishing, Damaged by Change of Fish Species".

6 Kim Il Sung. (1993. 12. 8). "Regarding the Direction of Socialist Economic Construction We Face", in *Regarding the Management Issues of Socialist Economy (7)*. Shortly after this speech, Kim put a three-year grace period for fulfillment of the Plan, but that has never been realized later. For details, see to Research Bureau, Bank of Korea (2000). *Present Condition and Prospective of North Korean Economy*, p. 1.

7 Kim Il Sung, "Regarding More Development of Fisheries Industries and More Production of Salt",

8 Yonhap News. (1993. 8. 7). "The North, Urging Production Growth of Fisheries for Solving Food Shortage".

sales of crabs and other seafood to Japan downed by 50 percent of 1994 sales mainly due to running out of fuel for fishing vessels.

Table 2. Number of Mechanized Fishing Boats of North Korea

Displacement tonnage	Gross tons	Length(m)	HP of the engine	Number
3,750	2,759	83	2,250	8
485	267	39	400	1,545
270	150	33	400	
140	77	23–25	200	
84	44	20–23	200	
30	18	16–18	30	

Source: FAO(1998), DPRK Report of the Fisheries Development Programming Mission

At the time, North Korea relied absolute volume of oil consumption on imports from China and Soviet Union. After suspension of oil import from Soviet Union in 1991, however, North Korea had no other way than faced worst oil supply situation.⁹

If fuel oil shortage problem was limited to deep-sea fishing, lack of materiel was the one sweeping across the entire range of North Korean fisheries sector. Worsening of North Korea's external relations with neighboring countries--especially with Japan--made it impossible to import fishing gears and nets from neighboring countries, which had accounted for 80 percent of total supplies.¹⁰

2.2. “Military-first” Politics and “Strong and Prosperous Nation”

For three years since his father's death, Kim Jong Il addressed the economic catastrophes and unprecedented famine with three-year “mourning period” and so called “Ruling by (senior Kim's) Instructions”, while consolidating his power base, searching for exit from the crisis. In 1998 when escaping from worst condition, Kim Jong Il did eventually ascend to the supreme leader of North Korea, ending three-year's Ruling by Instruction.

When seizing absolute power as the Chairman of the National Defense Commission (NDC), the junior Kim instituted the “Military-first” (*Son'gun*) politics

⁹ Russia's converting of trade practice from liquidation system to hard currency payment caused that suspension, mainly because North Korea had no ability to pay. For a brief description, see to Cho Myongchol, (1997). *State and Prospects of North Korea-China Economic Relations*, pp. 19-20.

¹⁰ For more details, see Hong Seonggul et al (2010), *A Study on Japan's North Korea Policy and Japan-North Korea Fisheries Cooperation*, Korea Maritime Institute, 2010.

and “Strong and prosperous Nation”(Kangsongdaekuk) as his principle of governance. Military-first politics was the means to build strong and prosperous nation declared by junior Kim.¹¹ In a political context, the term, military-first politics, meant literally that the military should be ahead of any social sector (even the party) as a vehicle for managing all aspects of North Korean society.¹²

As a logical consequence, military-first politics contained aspects of economic policy, which can be summarized by securing “priority on defense industry” simultaneously with light industry and agriculture. The phrase, “securing priority on defense industry”, according to North Korean official interpretation, meant that “not only put the state investments primarily on securing defense industry, but also provide facilities, materiel, electricity, and labour force with best condition and without problem”.¹³ The actual effect of the military-first politics, thus, resulted in almost concentration of all rights of exploitation and distribution for available resources on military sector in North Korea.

When resources are scarce, priorities granted to the military sector are highly likely to be privileged rights. In this context, “simultaneous development of light industry and agriculture”, the other side of coin in the military-first politics, has no way to be materialized, especially without overhaul of resource distribution system. In the process of implementing the military-first politics, each sector in North Korea's “people's economy” (*Inmin Kyongje*) was kicked out of the center to back seat.

3. Changing North Korean Fisheries Sector: Production Patterns

Up to the early 1990s, production structure in North Korea's fisheries sector, has been largely consisted of three sub-sectors: marine fishing industry, aquaculture/coastal mariculture, and seafood processing industry. The entire production activities of these industries have been covered largely by state-owned fisheries companies (large and small), and fisheries cooperatives (Table 2). The economic crisis, however, changed the nature of these agencies and the patterns of fisheries production significantly.

11 In North Korean literature, the term “strong” includes four aspects: thought, military, economy, and culture.

12 There have been numerous studies on the Military-First Politics. For a succinct description, see to Dae-Sook, Suh, (2002). “Military-First Politics of Kim Jong Il”, pp. 237-258.

13 Jaeyong, Suh, (2005). *Interpretation on Our Party's Economic Thought in Son'gun Era*, p. 21.

Table 3. Organizational Structure of North Korea's Fisheries Production

Management Type	Organization	Main Characteristics
State	Fisheries Company	commercial fishing, large seafood processing etc.
	Small Fishing Company	largely self-sufficient, partly commercial fishing
	Aquaculture	mainly fresh fish farming
	Coastal Mariculture	commercial marine plants and animals farming
Fisheries Cooperatives	Management Committee	partly self-sufficient, partly commercial
	Individual Cooperatives	partly self-sufficient, partly commercial
Others	Fisheries Work Team (Cooperative Farm)	small-scale subsidiary fisheries activities
	Fisheries Work Team (Factories etc.)	small-scale subsidiary fisheries activities

Note: Reconstructed based on Korean Geography Encyclopedia (Economy), 1990; Hong and Lim (2002), pp. 6-10

3.1. Functional Change of Fisheries Companies

3.1.1. Background

As mentioned above, encountered with economic crisis, North Korea adopted a policy of abandoning deep-sea fishing sector. According to one estimate, by 1998, the number of all operatable North Korean fishing vessels was less than four hundreds.¹⁴ This movement led to functional change of North Korea's fisheries companies, which have constituted one wing of fisheries production institutions with other wing, fisheries cooperatives. By the early 1990s, larger state-owned fisheries companies guided North Korea's commercial fisheries as production bases and distant-water fishing stations, while fisheries cooperatives have focused on small-scale fisheries production using small boats, and with numerous fisheries work teams (*Susan Chakopban*) assuming self-supporting function.

3.1.2. State

Although fisheries companies were established according to “one-county, one-company” principle, but, in the east coast, which accounted for overwhelming portion of the entire fisheries production in North Korea, regardless of such a principle, many fisheries companies were frequently overlapped in a single county.¹⁵

¹⁴ Hong Seonggul and Oh Suntaek, (2001). “State of North Korea's fisheries Industries and Plans for inter-Korean Fisheries Cooperation Promotion”. pp. 162-163.

¹⁵ By the mid-2000, many studies in South Korea reported that there were 88 state-running fisheries companies and 284 cooperatives.

By the early 1990s, however, state-running Fisheries Companies seem to have transformed their function from fishing bases to coastal aquaculture facilities. This movement of functional change has been underway by two phases.

In the first phase, there have been a series of guidance from the party. For example, an article in *Toilers(Kunroja)* the authoritative journal edited by the KWP Central Committee criticized lack of attention for coastal aquaculture by fisheries companies, saying “they are concentrating their efforts too much on fishing only”.¹⁶ In the second phase, large state-owned fisheries companies began to convert their function into coastal mariculture (or “*Chaebae Oop*” in North Korean term). This phenomenon began to emerge in the early 2000, and continues to the present with eastern coastal region at the center.

In early- and mid- 2000s, representative fisheries companies in the east coast including Wonsan (Kwangon), Hongwon (South Hamkyong), Raksan (South Hamkyong) were transformed to bases of aquaculture. In 2004, Yanghwa, a large fisheries company in the east coast, constructed a plant for breeding echinoderms such as sea cucumber, sea urchin.¹⁷ In the same year, Hongwon (Hongwon County, South Hamkyong) did also erected an artificial breeding plant for echinoderms, scallop (“*Papchoge*” in North Korean term), and *Laminaria* (kelp).¹⁸ In August 2008, there was a report read that Soho Fisheries Company (South Hamkyong) built fish farming facilities such as several tens of culture tanks for feeding and spawning mats and hatchery tanks, completing ground working by several hundred m².¹⁹

North Korean west coast tells a little bit different story. Because the fisheries authority originally developed a division of labor in production, in which the west coast should focus on coastal aquaculture, but the east coast, deep-sea fishing, there was relative stability in terms of functional change in the west sea.²⁰ Fisheries companies in the west coast, however, have experienced transformation in the same period. The movements were found in many cases. In Kamapo fisheries company (Chungsan County, South Pyongan), fisheries production portion other than in fishing--clam, oyster, short-necked clam (“*Pasuregi*” in North Korean term) became growingly high. Ongjin fisheries company in South Hwanghae Province has also constructed laver processing factory and artificial culture plant, converting its function from fishing base to coastal fish and sea-weed farm.²¹

16 Kim Hyok, (1989) “Central Tasks for Developing Fisheries Industries at Current Situation”, *Kunroja* {Toilers}.

17 *Rodong Sinmun*, (2004. 10. 28). “Vigorously for Protecting and Breeding Fisheries Resources with Patriotic Ardor”.

18 *Ibid.*; *Yonhap New* (2004. 7. 21).

19 *NKchannel* (2006. 8. 18)

20 By the late 1980s, the east coast accounted for 70 percent of the total fisheries production in North Korea, while the west coast, 30 percent. Pollock and sardine accounted for 70 percent of total production in North Korea's east coast. See to Kukto Tongilwon. (1989). *Overview of North Korea's Economy*, p. 40.

3.2. Large-scale and Nation-wide Acceleration for Fresh-water Fish Farming

3.2.1. Background

Evolution of fish farming sector consisted of fish farms (*Yang'ojaing*) and fish farming companies (*Yang'o Saopso*) shows how North Korea addressed its fisheries collapse. Even before his formal ascendance to the supreme leadership in 1998, Kim Jong Il paid a great attention on fish farming--especially for fresh-water fish species, conducting on-spot guidance or inspection. His activities were followed by various legislative and institutional supports: to name a few, adoption of the Fish Farming Act by North Korea's Supreme People's Assembly in 1998, institutionalization of the Fish Farming Management Bureau under the Ministry of Fisheries, and Fish Farming Science Research Center under the Academy of Fishery Science.

Before his death in December 2011, Kim Jong Il had conducted about 35 inspections and on-spot guidances on fisheries related sector for about 14 years since his first official inspection of Ryonjong Branch Fish Farm (Ryongyon County, South Hwanghae) in June 1997²² to the last one occurred in November 2011.²³ More than two-thirds of the inspections concentrate fish farming related facilities or institutions.²⁴ Most of them have occurred in the early 2000s, and the number decreased for years until 2010-2011 that the inspection curve began to reverse.

3.2.2. State

By the 1980s, there has been 60 or more fish farming companies in North Korea's national distribution (e. i., North Pyongan-15, South Pyongan-11, South Hwanghae-12, North Hamgyong-6(or 7), South Hamgyong-9, and Kangwon-6.²⁵ Large-scale, and nation-wide campaigns of strengthening fish farming capability--construction and modernization--was kindled by Kim Jong Il's famous 1997 on-spot guidance and address, "Regarding Strengthening Fish Farming". In his speech, Kim emphasized three theses on fish farming: construction of new fish farms, scientification of fish farming²⁶, and leading of the people's army.²⁷

21 North Korea's KCNA report (2008. 7. 18).

22 In this year, Kim Jong Il was "elected" as KWP's General Secretary (*Ch'ongbiso*), the head of KWP.

23 According to Rodongshinmun dated November 12, 2011, Kim Jong Il's last inspection was on the a fisheries company called "Fish Farming Company Comrade Kim Chonghwan Is Working For".

24 Statistical analysis is the outcome of the authors' data collection using open sources including Korea Institute of National Unification, (2009). *Trend of On-spot Guidances of Kim Jong Il* and other new media reports.

25 The data is drawn from *North Korean Geography Encyclopedia -Industry* (1989).

26 This has been dubbed "Fish Species Seedling Revolution"[*Mulgogi Chongja Hyokmyong*].

27 Kim Jong Il, (2009. 6). "Regarding Strengthening Fish Farming", *Chokuk (Fatherland)*, Vol. 546, The *Chokuk* is a pro-North Korean magazine issued by Choch'oryon in Japan.

Fish farming policy of Kim Jong Il's "brand" can be highlighted by several noticeable emphases: catfish farming; diversification of farming species such as sturgeon and snapping turtle; modernization of facilities; and initiatives by the military.

Proliferation of catfish farming in national scale has been widely acclaimed as Kim Jong Il's "great achievement" by North Korean media. Pyongyang Catfish Factory (Nakrang District, Pyongyang), which began its operation in December 2002, is the case. The factory is well known for its "innovative" technology such as recycling spent warm water from a nearby thermoelectric power plant, and the site that Kim Jong Il, at his inspection in September 2010, re-emphasized the importance of raising productivity in fresh-water fish farming and its scientification.²⁸

Sturgeon farming has been another field that North Korea has made much efforts to achieve technological advance, and expand it to commercial level for exports. Shortly after technological breakthrough was reportedly achieved at Shinch'ang Fish Farming Company (Unsan County, South Pyongan) in June 2009, Kim Jong Il himself ordered his aids to supply sturgeon produced by the company to Pyongyang Okryukwan--the most famous and largest restaurant--for special dishes.²⁹ Recently, North Korea expand sturgeon farming to its entire west coast, while making efforts to graft the skill with coastal marine aquaculture.³⁰

Along with Sturgeon farming, North Korea has put a lot efforts to construction and operation of Taedong River Snapping Turtle Factory. With the area of 20,000 m², the factory emerged as a showcase of smooth leadership succession when Kim Jong Il and his son and Vice-chairman of KWP's Central Military Committee co-conducted inspections on this newly constructed facility in October 2011.

Another main characteristic of fish farming policy in the Kim Jong Il era is that the campaigns have been initiated by the military. Whenever conducting his on-spot guidances and inspections on fisheries related sites--especially in early years of the NDC chairmanship, almost every players of military power elite group including Ri Yongmu, Hyon Ch'olhae, Pak Jaekyong accompanied him. At the same time, numerous fish farms were constructed by the military or military units such as "1216th Military Unit Fish Farm", "568th Joint Military Unit Catfish Factory".

Although much efforts have been poured into fish farming sector, there is

28 "Visiting Pyongyang Catfish Factory", *Chokuk*, Vol. 542 (2009. 2).

29 According to *Chokuk*, Okryukwan runs specialized sturgeon restaurant room supplying colorful sturgeon cuisines such as sturgeon sashimi, boiled sturgeon, and steamed sturgeon. For more details, see to "Proud Creation of Son'gun Era, Originator of Korean Food Development, Okryukwan Restaurant", *Chokuk*, Vol. 568(2011. 4).

30 In November 30, 2011, North Korean KCNA broadcasted the news of successful marine sturgeon farming.

rare objective evidence that shows how successfully the work has been done. In July 2007, one South Korean newspaper reported, citing KCNA, that, by the time, artificial fish farming pond units had increased three times for ten years since 1997, and that in the same years, every and each city and county has been furnished with a maximum of 1 million m² of fish farming.³¹

3.3. Growth of Coastal Mariculture

3.3.1. Background

Sharp decline of marine fishing in North Korea let efforts of developing coastal mariculture sector burgeoning. Main factors that led this phenomenon was that while coastal mariculture could be conducted with relatively small investments, its productivity was expected to be higher. According to North Korean fisheries literature, there are three topographic types of coastal mariculture: wild water-type (*Nalbada-hyong*, rugged coastal area with sharp slope), back bay-type (*Naeman-hyong*), and tideland-type (*Kansokchi-hyong*).³²

The encouragement of coastal mariculture began by Kim Il Sung's instruction in December 1977, when he placed growth of the sector as a major target in fisheries for successful completion of the 2nd Seven-Year Plan (1978-1984). Despite his instruction, however, later performance betrayed Kim's desire, which made him to reiterate it, especially in the late 1980s when North Korea faced more salient signs of food shortage.

Behind this movement did two driving forces affect the North Korean strategy for escaping economic decline. The first one was the task of "solving people's food problem". The other was foreign currency. At the 18th Plenum of the Central Committee of the KWP's 6th Congress in March 1988, North Korea set up three goals--normalization of production with higher level, export-first policy, and agriculture-first policy, while designating mariculture sector as a major policy tool for solving people's food problem and earning foreign currency by export growth. Kim directly said that "This year we should build 10,000 chongbo of coastal mariculture, and then, increase additional 10,000 chongbo every year to total of 60,000 chongbo until completion of the 3rd Seven-Year Plan (1993)".³³

By the early 1990s, the goal of coastal mariculture growth became more detailed. In a speech in September 1993, Kim Il Sung designated desirable marine

31 Chosun Ilbo, 2007. 7. 23.

32 *Kwangmyong Encyclopedia 18-Fisheries* (2009), pp. 838-839.

33 Kim Il Sung, (1988. 3. 17-11). "Regarding Sticking to the Revolutionary Banner of Juche and Strongly Promoting Socialist Construction." *Regarding the Management Issues of Socialist Economy* (7), p. 100. This speech reflected his sense of crisis on North Korea's dire economic stalemate.

plant and animal species such as kelp ("*Tashima*" or "*Konpo*" in North Korean term), sea mustard, blue mussel (*Sopchogae*), stressing the potential of coastal mariculture growth for compensating for ill-performance of marine fishing. This movement re-emerged with the rise of Kim Jong Il in 1998 despite disappearance of "export-first" fanfare.

3.3.2. State

The East Coast In this region, there are about twenty coastal mariculture companies (*Padaka Yangshik Saopso*)--North Hamkyong-8, South Hamkyong-6, Kangwon-5. Several companies such as Rajin(North Hamkyong), Sinpo, Shinch'ang, Iwon (up to this, South Hamkyong), Munch'on (Kangwon) have a longest history in modern North Korea by being converted and separated from fisheries companies in 1961.³⁴ Traditionally in the east coast, main marine plant species for mariculture has been *Laminaria*, sea mustard, while, in terms of marine animal, sea urchin, and sea cucumber.

In recent years, Rajin, Raksan, Roch'ang (up to here, North Hamkyong), Iwon, Shinch'ang (South Hamkyong), Much'on (Kangwon) represents coastal mariculture in the east coast. Among them, Rajin is well known for introducing mixed mariculture technology in 1983, and the site that Taeyong, a South Korean company, has attempted to produce scallop in cooperation with its North Korean partner by establishing a joint venture.

A smaller one in its early days, Raksan Coastal mariculture Company (Rajin, North Hamkyong) seems to have grown as major one--especially by the early 2000s when the company built mariculture zone of 400 chongbo off the coast. According to North Korean media, Raksan attempt to produce scallop in large-scale.

In 1998, Shinch'ang (Pukch'on County, South Hamkyong), has released fingerlings of several marine animal species such as sea urchin, sea cucumber, and flatfish, after installing artificial fish shelters under water. The size of the fish shelter is reported to be 100m-length, 1m-width, and 0.5m-height.³⁵

Munch'on, the largest coastal mariculture company in Kangwon Province, has been traditionally well known for cultivating Pacific oyster (*Ch'amgul*). Since 1990s, however, Much'on began to expand its mariuculture species to some marine plants.

The West Coast From Chongju in North Pyongan to Ongjin in South Hwanghae, coastal mariculture companies are established along the entire coastal areas

34 Kim Dongjin et al. (1991). *History of Korean Fisheries (3-2)*, p. 124. This was according to Kim's instruction in his on-spot guidance across South Hamkyong Province in 1961.

35 Yonhap News (1998, 12. 14). "North Korea Building Artificial Fish Shelters in East Sea Coastal Fishing Ground".

of the West Sea. Especially, however, South Hwanhae Province is famous for coastal mariculture with Pupo, Kangryong, Ongjin, Pyonghwa, and Ryongyon.

Pupo, traditionally known for kelp growing, seems to have begun sea cucumber farming in the late 2000. In July 2009, Yonhap News, a South Korean news agency, released a clip of sea cucumber farming in April of the same year. Recently, a video clip with about ten-minute length produced by North Korea has been distributed internationally by the Youtube network.³⁶

Ongjin, another famous mariculture company, is located in Ongjin County, South Hwanghae, has initially focused on laver farming. This company is reported to have developed namely “horizontal rope cultivation method” for sea mustard and kelp in 1982.³⁷ Pyonghwa, located in Kangryong County (South Hwanghae), and established in December 1969, is focusing on kelp mariculture.

4. Changing North Korean Fisheries Sector: Management System

4.1. Weakening of Central Control

In the course of change in North Korea's fisheries sector for two decades (1990s and 2000s), the sea change of fisheries management can never be negligible. As shown in the earlier sections, by the early 1990s, North Korea's fisheries sector has long been managed by two institutional tools: On the one hand, State owned fisheries companies have been controlled by North Korea's central governmental bodies such as Fisheries Committee or the Ministry of Fisheries under the Administration Council (*Chongmuwon*). On the other hand, small-scale fisheries companies and numerous fisheries cooperatives have been under the control of provincial General Bureau of Fisheries and local Fisheries Committee.

Additionally, from late 1980s, large-scale, and state-running production activities began to be complemented by a nation-wide introduction of the Joint Corporation (JC) System (*Yonhapkiopso Ch'ege*)³⁸ into fisheries sector, which intended

36 The title of the film is “the Farm Is Running over with Joy of Excellent Harvest”.

37 Kim Jungbong, (1993). “Status of North Korean Fisheries Industries and Plans for Inter-Korean Fisheries Cooperation”, p. 108.

38 The “Joint Corporation System” is a North Korea's unique industrial management system of central command and planning economy, in which state planning organizations, many production units, and planning cells are directly linked by the joint corporation as a planning unit. This system was initially introduced in 1973. In the early 1990s, the importance of joint corporation system was re-emphasized by North Korean economists. For instance, see Pak Yongkun, “Joint Corporation System is a Superior Corporation Management System Suitable for the Nature of Socialist Planning Economy and Large-scale Industrial Development.” *Kunroja*,

to increase management efficiency.³⁹ The efforts were concentrated in large fisheries companies located in the east coast. In the introducing period, there have been South Hamkyong Distant Water JC (large fisheries companies such as Yanghwa, Hongwon, and Samho were linked), and North Hamkyong Fisheries JC (Chongjin at the center).⁴⁰

When starting his office as the Chairman of the NDC, Kim Jong Il overhauled the administrative structure from the Administration Council system to the Cabinet, while, at the same time, dismantled JC system, which had proved pretty much problems such as decreased efficiency by organizational swellings, loosened supervision, and confusion of performance report system.⁴¹

To capture what occurred in the JC system in late 1990s and early 2000s, especially in North Korea's fisheries sector, remains a murkier research area. Nonetheless, as some media reports and official information released by South Korea's Ministry of Unification, reveals, at least by early- and mid-2000s, the JCs such as Kangwon JC, North Hamkyong Fisheries JC, South Hamkyong Distant-water JC, South Hwanghae JC have existed, and JC system and its management practices has kept running.

For example, North Korean *Rodongshinmun* dated January 20, 2003, reads that several coastal mariculture companies including Pupo, Kumipo, Ongjin, Pyonghwa were affiliated to South Hwanghae Fisheries JC, reporting the first harvest of kelp by those companies.⁴² On the other hand, the same newspaper dated October 28, 2004, reports that “fisheries companies under South Hamkyong Distant-water JC are producing good outcomes by building their coastal mariculture bases with promising way, and conducting mariculture activities in planned manner.”⁴³

4.2. Trade-first Policy, Privilege Organs, and Spoiling of Fisheries Sector

One of the spin-offs derived from the early 1990s' emphases on the “trade-first” policy was that almost every organs-- in the Party, the military (the Korean People's Army, KPA), and the Administration Council (later, the Cabinet)--rushed into foreign currency earning efforts, equivalent of “North Korea

No. 4 (1991).

39 For a brief and clear discussion on the evolution of North Korea's Joint Corporation System, see Nakagawa Masahiko, (2003). “Formation of North Korean Joint Corporation”, *Pukhankyongje Review* [North Korean Economy Review] KDI.

40 Apart from these JCs, Shinpo JC was established in 1981, Nampo JC, in 1989.

41 For a brief introduction, see Rhee Jaegi and Suh Jongik ed., (2007), *A new North Korean Economy*, pp. 122-123 and pp. 180-181.

42 *Rodong Shinmun*, (2003. 1. 20) “Kelp Harvesting started.”

43 _____, (2004. 10. 28) “Vigorously for Protecting and Breeding Fisheries Resources with Patriotic Ardor”.

Inc.”⁴⁴ In its initial days, one of main marketable or exportable commodities was fisheries products including fish and shellfish--along with mining materials such as iron ores, mined coals, and agricultural items such as pine mushrooms and brackens. The more fisheries products were being sought for exports, the more rapidly and widespreadly rights of controlling fisheries sector were transferred or concentrated to the military. The phenomenon was accelerated from 1994 when the Party ordered that every organ or corporation should solve food problem by itself, which meant virtually sudden suspension of Public Distribution System (PDS) for food.⁴⁵

In this course, many fisheries companies added “Taehung” to their original title such as Kimch'aek Taehung Fisheries Corporation (North Hamkyong), Hwadae Taehung Fisheries Company (North Hamkyong), Wonpyong Taehung Fisheries Company (South Hamkyong)⁴⁶ became channels for foreign currency earnings, which were affiliated by the General Bureau of Taehung running many trade companies such as Taehung Trade Company, and which were effectively directed by the KWP's Bureau 38.⁴⁷

The military did also increase, and multiplied its foreign exchange earning activities in the name of self-obtaining spendings, in which the fisheries sector became a main target. As a result, many military organs commanded their own trade companies, their branches, and export-source bases in the fisheries sector. Maebongsan (Ministry of People's Armed Forces), Kansong General Corporation (General Staff Department), Pirobong (General Bureau of Reconnaissance), Ch'ongwunsan (General Guard Bureau) are a few examples of larger trading companies.⁴⁸ Chronic fuel oil shortage made the military and navy, which have been in charge of coastal guard with vessels, controlled not only exportable fisheries production but also its transports and distribution.

In terms of foreign currency earnings, the existing diving fisheries companies (*Chamsu Saopso*) and export fisheries companies (*Such'ulpum Susan Saopso*) deserve attention. Diving fisheries companies, traditionally produced high-priced seafood products such as sea urchin and sea cucumber, are now functioning as major foreign

44 See to John S. Park (2009). “North Korea, Inc.: Gaining Insights into North Korean Regime Stability from Recent Commercial Activities”, US Institute of Peace.

45 For a brief discussion, see to Park Hyongjung, (2011). “Commercial Engagement of the Party-State Agencies and the Expansion of the Market in 1990s in North Korea.” *TongilChongch'aek Yonku* [Unification Policy Studies], 20(1).

46 In March 2010, Kim Jong Il inspected this company with Chon Il Ch'un, head of the Bureau 38--well known for his role as the watchman of Kim Jong Il's private funds and assets.

47 The Bureau 38 has been known for managing Kim Jong Il's private and secret funds. The Bureau had once been merged into the Bureau 39 in charge of keeping the KWP's funds until May 2010 when it was again separated from the Bureau.

48 Park Hyongjung, “Commercial Engagements of the Party-State and the Expansion of the Market in 1990s in North Korea”, pp. 227-228.

currency sources for many North Korean armed forces' units such as North Korea's Coastal Security Units. Export fisheries companies such as Rakwon (South Hamkyong), Roch'ang (South Hamkyong), Tanch'on (South Hamkyong), which emerged around the early 1990s, seem to have been converted from the existing fisheries companies. In September 1997, a South Korean newspaper said, citing *Democratic Choson (Minju Choson*, pro-North Korean newspaper in Japan), that export fisheries companies were spurring to research and development of exportable seafood production.⁴⁹

By this process, most of profitable and productive fisheries branches were metamorphosed into arms for foreign currency earnings of prerogative organs, isolated from North Korea's people's economy, and reducing to "corruption-source bases" rather than "export-source bases." To the corruption problem, North Korea has no prescription except for periodic restructuring and merges of trade companies, and regular inspections on suspicious sites and persons.⁵⁰

5. Prospects and Implications

5.1. Findings and Prospects

The year 2012 has two aspects for North Korea's political stability and economic sustainability. First, 2012 is the year that, as Kim Jong Il declared, should open its "door to strong and prosperous nation." Second, 2012 would be a testing year of newly rising Kim Jong Un leadership emerged more rapidly than ever expected. If the leadership sustain in the future, Kim Jong Un, as "the third Suryong", should inherit Kim Jong Il's liabilities, let alone responsibility of achieving the goal of "Songun" and "Kangsong Taekuk."

In the fisheries sector, details of Kim Jong Il's liabilities would be included as follows.

First, Kim Jong Un should inherit the bankrupt fishing sub-sector, which is failing, so far, to recover even the production level of the 1970s. Without a breakthrough, North Korea under Kim Jong Un's leadership will have difficulty to normalize its fisheries sector. This means that, as his father did, Kim Jong Un would try to search for alternatives in a way that he re-emphasize the importance of aquaculture growth, distancing himself from marine fishing production recovery.

49 *Yonhap News* (1997. 9. 24) "NK, Developing Exportable Seafood Mariculture Vigorously."

50 Park Hyongjung, "Commercial Engagements of the Party-State Agencies and the Expansion of the Market in 1990s' in North Korea".

Second, fisheries production organizations will, as did during the past two decades, go on their activities for aquaculture and mariculture efforts. Restrictions and strains such as fuel oil shortage and aging fishing vessels will continuously push North Korea's fisheries sector to turn to expansion efforts of aquaculture and mariculture, which are relatively less costly, but more profitable.

Third, as in the Kim Jong Il's era, significant portion of North Korean fisheries sector will be devoted to earn foreign exchange so much that the Party and the military can maintain their controlling power on fisheries production resources.

5.2. Policy Implications from Perspective of Inter-Korean Fishery Cooperation

From the perspective of inter-Korean marine and fisheries cooperation, what do these findings really mean for South Korea? First, the prospect of continuous depression of fishing industries ranging from offshore fishery to deep-sea fishery implicates that in the case of cooperation regarding fishing industry, it would be better to negotiate South Korean fishing vessels' access to North Korean waters rather than discuss with inter-Korean joint fishing. Acceleration of mariculture of marine plant and animals in North Korea needs more advanced technology and modernized facilities. Thus, plans for technological exchange related to mariculture between North and South are needed to be more proactively considered.

Second, reconstruction of North Korea's fisheries sector should be considered in terms of environmental integrity of waters surrounding the Korean peninsula, and be approached from the viewpoint of marine living resource management.

Third, when planning inter-Korean fisheries cooperation, especially in the case of joint ventures, South Koreans need to pay more attention on the complexity of North Korean fisheries' operating structure forged by intervention of many prerogative organs in a sense that, in foreseeable future, there is little possibility for North Korea, even under newly rising Kim Jong Un leadership, to reform the distorted power structure in the fisheries sector. ■

Note: Except for some words and names such as Juche and Kim Jong Il, Korean words are transliterated according to the McCune-Reischauer Romanization system, but some diacritical marks for the vowels are not applied (e. I., Ô for ㅜ)

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