

A Study on the Fisheries Subsidy Policy of Korea under WTO Regime

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WTO 체제 하의 한국의 수산보조금 정책에 관한 연구

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Abstract

In preparation for the WTO Ministerial Conference on the Fisheries Subsidies scheduled at the end of 2019, we examined the developments of fisheries subsidy negotiations and showed the reasons why fisheries subsidies should be regulated. We also looked into the classification of fisheries subsidies made by international organizations and researchers, and examined Korea's fisheries subsidies and their characteristics during the period from 2016 to 2019. Based on the results of such reviews, we proposed policy suggestions for fisheries subsidy of Korea.

Key words : Fisheries subsidy, Subsidy policy, UN SDG, Subsidy negotiation, WTO

I . Introduction

Since the FAO(Food and Agriculture Organization) first raised the global debate on fisheries subsidies in the early 1990s, the key argument was that subsidies are a major contributor of excess fishing capacity and the distortion of market, and that the subsidies on fisheries should be banned or regulated. Owing to the decreasing concern in fisheries subsidies in the Doha Round, the fisheries subsidies issue had lost its drive in the period during 2010-15. However, the concern of countries to address fisheries subsidies has revived recently and WTO (World Trade Organization)'s 11th Ministerial Conference was held in late 2017. At the 2017 Buenos Aires Ministerial Conference, ministers decided on a work programme to

conclude the negotiations by aiming to adopt, at the 2019 Ministerial Conference, an agreement on fisheries subsidies which delivers the consideration for UN Sustainable Development Goal 14.6. In early 2019, the Ministry of Oceans and Fisheries of Korea, therefore, invited a research service to prepare fisheries subsidies negotiation strategy for the 12th WTO Ministerial Conference in the late 2019, which signifies that the response to the fisheries subsidies negotiations is becoming very important to Korea. In October 2019, the high-level panel highlighted urgent need for WTO deal to limit harmful fisheries subsidies at a high-level session during the Public Forum. Under these circumstances, we will first examine the developments of global discussions on fisheries subsidies that progressed so far and show the

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reasons why fisheries subsidies should be regulated. Then, we will look into the classification of fisheries subsidies made by international organizations and scholars, and examine Korea's fisheries subsidies and their characteristics during the period from 2016 to 2019. From the results of such reviews, we will propose suggestions for fisheries subsidy policy of Korea.

II. Brief History of Fisheries Subsidies Negotiations

In 1990s, studies by FAO, UNEP(United Nations Environment Program) and others revealed contribution of fisheries subsidies to overfishing(FAO, 2000). In 1998, international civil society and “Friends of Fish” began calling for WTO’s action on fisheries subsidies. During 1999-2001, between the WTO Seattle Ministerial Conference and the Doha Ministerial Conference, Iceland, New Zealand and the US contributed to the groundwork for discussion on fisheries subsidies. Japan and Korea made active efforts to resist any new WTO fisheries subsidies. In 2001, WTO Doha Mandate was introduced to clarify and improve WTO disciplines on fisheries subsidies, which was the first official stand taken by the member countries at WTO(WTO, 1999; WTO and CTE, 2000).

In 2002, The World Summit on Sustainable Development demanded successful conclusion of WTO fisheries subsidies negotiations as a top priority for achieving sustainable fisheries. During 2003-2004, consensus that environmental dimension of new fisheries subsidies disciplines should be negotiated emerged. In 2005, WTO Hong Kong Ministerial Declaration called for prohibition of

fisheries subsidies that contribute to overcapacity and overfishing, respecting appropriate special and differential treatment for the recipient countries, which was a pivotal moment for the fisheries negotiations at the WTO(WTO, 2005; Bahety and Mukiibi, 2017).

During 2005-2007, different technical proposals on specific issues were tabled by WTO delegations at the WTO Rules Negotiating Group. On Nov. 30, 2007, Chair’s draft text on reformed fisheries subsidies was presented to the Negotiating Group on Rules, which specified a broad set of prohibited subsidies and a list of general exceptions(WTO, 2005). During Dec. 2007-May 2008, the “Friends of Fish” and other environmental stakeholders supported the Chair’s draft. The US, Japan, and EU were divided on the question of scope and coverage of the proposed prohibition. In Dec. 2008, the Negotiating Group on Rules Chair released a second set of consolidated texts. For fisheries subsidies, the Chair tabled a “roadmap for discussions” which was a series of questions that were meant to guide the discussions. The key lessons obtained from the negotiations of 2010-2011 and the members’ submissions was that all countries realized the state of overexploited and overfished marine resources and agreed that countries needed to act collectively to address the situation.

At the 2017 Buenos Aires Ministerial Conference, ministers decided on a work programme to conclude the negotiations by aiming to adopt, at the 2019 Ministerial Conference, an agreement on fisheries subsidies which delivered on Sustainable Development Goal 14.6. WTO members wrapped up their 11th Ministerial Conference in Buenos Aires on 13 December with a commitment from members to secure a deal on fisheries

subsidies which delivers on Sustainable Development Goal 14.6 by the end of 2019. They also committed to improve the reporting of existing fisheries subsidy programmes. In addition, members took a number of other ministerial decisions, including extending the practice of not imposing customs duties on electronic transmissions for another two years, and they committed to continue negotiations in all areas. At the 14 December meeting of the Negotiating Group on Rules, heads of WTO member delegations declared their commitment to intensify negotiations on fisheries subsidies in the new year to meet the end-2019 target for an agreement. Heads of delegation further confirmed their support for the January-July 2019 work programme recently agreed in the Negotiating Group.

In 2019, the Negotiating Group on Rules has been holding many meetings to discuss how an agreement on fisheries subsidies which delivers on Sustainable Development Goal 14.6 can be achieved by the end of the year. The Sustainable Development Goal commit governments, by 2020, to prohibiting certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing, and refrain from introducing new such subsidies.

III. Regulation and Classification of Fisheries Subsidies

1. Case for Regulating Fisheries Subsidies

Subsidies can reduce the cost of fishing or increase revenues from a given effort. Thus they provide an incentive for fishermen to increase their catch and potential profits. Subsidies can make

fishing more profitable even when fishery resources are decreasing. In offsetting the economic incentives for fishermen to quit the fishery, subsidies effectively maintain fishing capacity at levels exceeding what is appropriate for sustainable fishing(Cox, 2003). Because of these negative effects, international economic organizations including WTO, FAO propose two main reasons for imposing restrictions on fisheries subsidies. Their central argument is that the subsidies are a major element in the creation and promotion of excess fishing capacity, and the market distortion. Thus they insist that certain subsidies on fisheries should be banned or limited. We examine this argument using Gordon (1953), Schaefer (1954) model and partial equilibrium analysis.

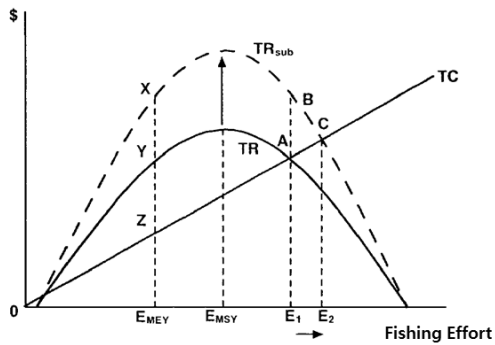
1) Enhancement of Excess Fishing Capacity

The effects of subsidies on the sustainability of fisheries resources can be analyzed by the Gordon-Schaefer Model. The subsidies result in changes in the revenue function or cost function of economic agents using fisheries resources. Under a free operation system, if the government grants subsidies directly to fisheries companies for the purpose of increasing the revenue of the fisheries companies, the profits of industry and the income of fishermen will be increased in the short run, which will further induce new entrants into fisheries. In that case, the pace of entry into the fishery depends on whether the existence of the economic rent and revenues lasts over a long period of time or in a short period of time. In the long term, the expansion of fishing effort in the fisheries industry will deplete fisheries resources and reduce catches.

A. Effect of revenue increasing subsidy

In [Fig. 1], the total revenue function and the

total cost function are represented. The economic rent is generated from the fishery at a comparatively large fishing effort level. Therefore, under the free operation system, the effort of fishing will be increased to E_1 , where the economic rent will disappear. As shown in Figure 1, the fishing effort E_1 exceeds the fishing effort that can achieve the maximum sustained production (MSY). And because of the fishing efforts reaching E_1 , total revenue is determined at a level lower than its maximum level as a result of an increase in fishing effort. If a financial transfer that increases the revenue of fishermen, such as price



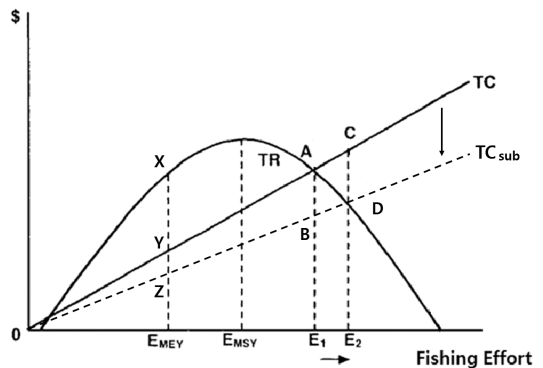
[Fig. 1] Effect of revenue increasing subsidy.

subsidies, is introduced, the total revenue for each level of fishing effort will increase. Figure 1 shows that the introduction of such a subsidy system shifts the TR curve to TR_{sub} , a new total revenue curve. Under the free operation system, the introduction of the subsidy system will result in excess profits represented by the distance between A and B for the fishermen in the short run. However, if excess profits occur, new economic agents will enter the fishery sector or the existing fishermen will increase their fishing effort, resulting in an increase in fishing effort to E_2 , the new

equilibrium point, and at point C, the excess profit will disappear. As we saw, the most significant effect of the financial transfer is that the fishing effort will be extended to the excessive level, which is far from the level of the fishing effort to achieve the maximum sustained production (MSY).

B. Effect of cost reducing subsidy

The subsidies for reducing fishery costs reduce total fishery costs at each level of catch effort. When such subsidies are introduced, the total cost curve shifts downward. If a financial transfer that decreases the cost of fishers is introduced, the total cost for each level of fishing effort will decrease. [Fig. 2] shows that the introduction of such a subsidy system shifts the TC curve to a new total cost curve, TC_{sub} . Under open access to fishery, the introduction of the subsidy system will result in excess profits represented by the distance between AB for the fishers in the short run.



[Fig. 2] Effect of cost reducing subsidy.

Accordingly, the introduction of a cost reducing subsidy under open access to fishery has the effect of causing an excess profit to the fishers in the short run. If excess profits occur, however, the entry of new fishers increases or existing fishers increase the effort of fishing. As a result, the

fishing effort increases to a new equilibrium point with no excess profit, which is D in the graph. In the case of these subsidies, there is an effect of increasing the fishing effort to an excessive level, far from the MSY catch effort level, and also reducing fishery resources.

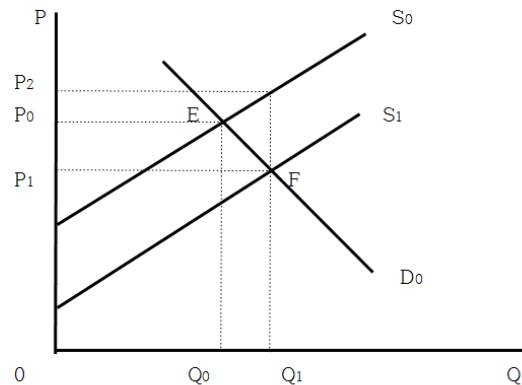
2) Cause of Market Distortion

Governments provide subsidies in the form of special tax exemptions or loans with low interest in order to increase exports. Export subsidies are provided for the purpose of increasing exports, as they reduce the prices of export goods by providing cost advantages to domestic producers. As a result, the foreign consumers can acquire imported goods that are cheaper than the actual supply cost of the product.

Export subsidies affect the exports directly and imports indirectly, and thus trade balance and the domestic economy. Since the subsidy eventually lowers the export price of the domestic commodity, its trade balance deteriorates in the short term. However, if the export price is low, which will increase the export volume, and if the foreign demand for the domestic exports is relatively flexible, the export income of the country will increase after the decrease in the export price is compensated by the increase in the export volume.

[Fig. 3] illustrates the effect of such subsidies through a partial equilibrium analysis. Under free trade, S_0 is a domestic country's export supply curve for a fisheries product, and D_0 is a foreign country's import demand curve for the fisheries product. Then the market equilibrium will be obtained at E. Thus the domestic country's export amount will be OQ_0 and the unit price will be P_0 . Assuming that domestic country pays a subsidy amounting to P_1P_2 per unit, domestic

country's supply curve will be shifted from S_0 to S_1 and, as a result, the market equilibrium point will be shifted to F. Therefore, the price paid by foreign consumers will be lowered to P_1 , and the export amount will be OQ_1 . Whether the export revenue will increase or not depends on whether the area $\square OP_0EQ_0$ is larger or smaller than the area of $\square OP_1FQ_1$. A domestic country's exporters of the fisheries product can expand their production beyond the free trade level since the unit price (including subsidies) of their export becomes to P_2 from P_0 , which is a distortion of free trade in terms of price and quantity, which will lead to overfishing or overproduction of fisheries products.



[Fig. 3] Effect of export subsidy.

2. Classification of Fisheries Subsidies

1) International Classification

Since the focus of concern on fisheries subsidies differs from country to country and from organization to organization, there is no assented definition or classification of fisheries subsidies. The GATT(GATT, 2000), APEC(APEC, 2000), FAO(FAO, 2000), OECD(OECD, 2000), UNEP

(UNEP, 2006), WTO(WTO, 1999, 2005) and other organizations connected to trade or subsidies have taken different approaches. We consider the following classifications on the fisheries subsidies that can be used as criteria when we define the adequate fisheries subsidies for Korea under the

international regulations on the fisheries subsidies.

A. Classification by UR SCM Agreement

The GATT SCM Agreement at Uruguay Round categorized the subsidies as prohibited, non-actionable, and actionable subsidies. The definitions are given as in <Table 1>.

<Table 1> Classification of subsidies by UR SCM Agreement

Subsidies	Definitions
Prohibited subsidies	Export subsidies - subsidies contingent, in law or in fact, whether wholly or as one of several conditions, on export performance (A detailed list of export subsidies is annexed to the SCM Agreement) Local content subsidies - subsidies contingent, whether solely or as one of several other conditions, upon the use of domestic over imported goods
Non-actionable subsidies	Subsidies which are not specific, even if specific, assistance for research activities conducted by firms or by higher education or research establishments on a contract basis with firms
Actionable subsidies	Subsidies that fall in the “actionable” category. Actionable subsidies are not prohibited. However, they are subject to challenge, either through multilateral dispute settlement or through countervailing action, in the event that they cause adverse effects to the interests of another member

<Table 2> Classification of subsidies by WTO NGR Chair

Subsidies	Lists
Prohibited subsidies	Vessel construction, modification or repair /support on operating costs (like fuel and licence fees), transfer of vessels, port infrastructure exclusively or predominantly for fishing activities, income and price support, landing and ‘in or near’ port processing activities, any vessels engaged in illegal, unreported or unregulated (IUU) fishing, subsidies affecting fish stocks that are in ‘unequivocally in overfished condition’
Allowed subsidies	Adoptions of vessel safety and sustainable fishing practices, capacity-reducing programmes, aid for natural disaster relief, improvements for crew safety, re-education of fishers towards alternate livelihoods, improvements for sustainable fishing techniques, environmental improvements
Allowed subsidies	Exceptions to the prohibited subsidies Aid for natural disaster relief, improvements for crew safety, re-education of fishers towards alternate livelihoods, improvements for sustainable fishing techniques, environmental improvements, etc.
Special and differential treatment (complete exceptions for LDCs)	Artisanal fishing, subsidies for vessel acquisition and modification and operating costs for small-scale fisheries with vessels under 10 meters, vessel modification on domestic fisheries operating within the exclusive economic zone, all special and differential treatment was subject to fisheries management system that was applied to the general exceptions/ positive subsidies.

B. Classification by WTO NGR Chair

The NGR Chair presented the draft to the Negotiating Group on Rules. He listed a broad set of banned subsidies and a list of general exceptions in 2007 as shown in the following <Table 2>. In 2008, The NGR Chair issued a second set of consolidated texts. For fisheries subsidies, the Chair tabled a “roadmap for discussions” which was a series of questions that were meant to guide the discussions.

C. Classification by UN POST-2015 Development Agenda

With respect to the UN POST-2015 Development Agenda, SDGs were reported in 2014 and Goal 14 out of 17 Goals is directly connected to the sustainable use of marine resources. The Goal 14 is worth reviewing when we assign the adequate fisheries subsidies for Korea since it shows the directions for the future fisheries. Especially the goal 14.6 aims to prohibit certain forms of

fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from bring in new such subsidies by 2020(UN General Assembly, 2014). The contents are summarized in the following <Table 3>.

D. Classification according to sustainability of fish stocks

Since there is no agreed-upon definition or classification of fisheries subsidies, the trade or subsidies related organizations have suggested different approaches. One of the alternative classifications is one according to Sustainability of Fish Stocks(Smriti et al., 2017). In this approach, fisheries subsidies are categorized as beneficial, ambiguous, and prohibitive subsidies. The subsidy is beneficial if it defends sustainability of fish stocks. On the contrary, it is harmful if it encourages overfishing. In the case of ambiguous subsidies, subsidies enhancing fisheries capacity and subsidies enhancing sustainable fisheries must be

<Table 3> Fisheries subsidies in SDGs goal

Goal	Contents of Goal 14
Goal 14.6	By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing, refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation (Taking into account ongoing World Trade Organization negotiations, the Doha Development Agenda and the Hong Kong ministerial mandate.)
Other goals (summarized)	Prevention and significant reduction of marine pollution, Sustainable management and protection of marine and coastal ecosystems, Minimization of the impacts of ocean acidification, Effective regulation of harvesting and termination of overfishing, illegal, unreported and unregulated fishing, Conservation of at least 10 per cent of coastal and marine, Increase in the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources and sustainable management of fisheries, aquaculture and tourism, Increase in scientific knowledge, development of research capacity and transfer of marine technology, Provide access for small-scale artisanal fishers to marine resources and markets, Ensure the full implementation of international law

differentiated, and subsidies that raise fisheries capacity and cause overcrowding of fishery resources should be banned. Only those subsidies that are capacity enhancing or further IUU fishing should be prohibited(Smriti et al., 2017). The list of subsidies is given in the following <Table 4>.

2) Fisheries Subsidies of Korea

The Korean Government has been implementing a variety of subsidies measures in various forms and methods to aid the development of fisheries and fisheries associated industries. These subsidies can be broadly classified into two categories. One is the direct subsidies, which are funded by the central or local government. The other is given in the way in which the difference between the higher market interest rate and the lower subsidized interest rate is maintained at a given level when the subsidy is provided in the form of loan. According to the related rules set by the central government, the government shall support a part of the project funds.

The private fisheries businessmen, fisheries corporations, or fisheries co-operatives who purport to carry out the project are requested to bear a certain portion of fund. And the local governments are also required to bear the matching funds for the projects that are qualified to receive the subsidies from the central government. The types of fishery subsidies granted from 2016 to 2019 in Korea are shown in <Table 5> and <Table 6>. <Table 5> shows the list of subsidies granted in 2016. <Table 6> shows the list of grants added in 2017, 2018 and 2019.(Ministry of Oceans and Fisheries, 2016, 2017, 2018, 2019).

In 2017, several subsidies were added, including subsidies for Preparation for Fisheries Subsidies Negotiation with International Organization. And in 2018, only one subsidy was added to the list of the fisheries subsidies in 2017. On the other hand, in 2019, it is worth mentioning that the support for the Fishing Village New Deal 300, which was intended to increase the income of fishing villages

<Table 4> Fisheries subsidies according to Sustainability of Fish Stocks

Subsidies		List of Subsidies
Beneficial subsidies	Subsidies for fisheries management	Subsidies for strengthening monitoring, control and other surveillance programmes, fish stock assessment and resource surveys, fishery habitat enhancement, implementation and management of marine protected areas and stock enhancement programmes, the establishment and administration of management systems (including allocating and monitoring fishing licences, permits, quota, vessel numbers and catch returns), adjusting management settings within an existing management system, developing amendments or additions to the existing management system
	Subsidies for research and development	Fishery frame surveys, oceanographic studies, socio -economic studies, fishery planning and implementation information systems, database and statistical bulletin to support fisheries setting up of marine protected areas and reserves.
Ambiguous subsidies (with questionable effectiveness)		Fisher assistance programmes, vessel buy-back, community development initiatives
Prohibitive subsidies		Capacity enhancing, IUU fishing should be prohibited

<Table 5> Classification of Fisheries Subsidies of Korea in 2016

Classification of Fisheries Subsidies of Korea in 2016
Fuel cost saving equipment with high efficiency, National fishing port, Encouragement of return to fishing and agricultural village, Advancement of fishing industry, Creation of resources in inland water, modernization of old fishing boat, Modernization of Busan Common Fish Market, Establishment of complex for comprehensive support for Eco -friendly fisheries in South-West Region, Fisheries products distribution center in consumer market area, Secondary compensation of financial fund for fisheries, Standardization of logistics for aquatic products, Construction of safety inspection system for aquatic products, Hygiene management of Aquatic products, Pioneering overseas markets for aquatic products, Development of Fishery Product Processing Industry, Fostering strategic export items for aquatic products, Venture investment in Fishery Industry, Establishment of base for fishery food industry, Public administrative support for Fisheries, Promotion of aquatic product consumption and fishery value, Fishery resource creation, Utilization of fisheries equipment for rent, Activating the use of Fishery information, Normalization of fisheries cooperatives management, Establishment of prevention system for fishing boat accident, Insurance for fishers and fishing boat, Fisheries infrastructure reinforcement, Training and education for fishers, Welfare support for fishers, Safety insurance for fishers, Insurance for aquatic damage, Fisheries information & communication, the 6 th industrialization of fishing village, Convergence industrialization of resources of fishing village, Reduction of offshore fishing vessels, Coastal cooperation with neighboring countries (ODA), Improvement of coastal fishing grounds, Activation of ocean fishing, Fostering of self-management fisheries, Direct fisheries payment to unfavorably conditioned fishing area, Establishment of sustainable fisheries production system, Fostering of solar salt industry, Distribution of environment -friendly fishing gear, Fostering environment-friendly Aquaculture, Eco-friendly energy supply and water management, Shutdown of fisheries, Direct payment for the compensation of damages due to imports, Environment - friendly feeding(2016)

<Table 6> Classification of Fisheries Subsidies of Korea in 2017, 2018 and 2019

Fisheries Subsidies of Korea added in 2017, 2018 and 2019
Preparation for Fisheries Subsidies Negotiation with International Organization, Research on CODEX Standardization of laver, Activation of Fisheries cooperative-guided revenue earning project, Cooperation with fishers of China & Japan, Construction of production facilities for seeds of coldsea fish, Development of agricultural and fisheries village (2017)
Purchase of fishing gears by borrowing (2018)
Construction of Noryangjin fisheries market, Fisheries R&D facilities and Vessel management, Modernization of aquaculture facilities, Fishing village New Deal 300 project, Damaged area by oil spill pollution, Supply of eco-friendly energy saving gears, Reallocation of young men in fishing village, Improvement of quality of life for fishers (2019)

and the subsidies for the construction of Noryangjin fisheries market were granted. One of the fisheries subsidies added after 2017 has the title of fisheries subsidies for “Preparation for Fisheries Subsidies Negotiation with International Organization” In reality, however, the subsidies have been granted to the FAO World Fisheries University Support Program and the FTA Fisheries Cooperation Project

between Korea and New Zealand. In other words, the subsidies were not used to cultivate the negotiation experts who can bring about the results of negotiations favorable to Korea in international negotiations with the international organizations including the WTO. Based on the determination of the 2017 WTO Ministerial Conference, the 12th WTO Ministerial Conference is being held in 2019.

In the early 2019, the Ministry of Oceans and Fisheries of Korea invited a research service to prepare fisheries subsidies negotiation strategy for the 12th WTO Ministerial Conference, which may be an effective countermeasure for the conference.

As mentioned earlier, fisheries subsidies can be classified according to the criteria set by the UR SCM Agreement, WTO NGR Chair, SDGs goal, and Sustainability of Fish Stocks. Korea's fisheries subsidies may or may not be subject to regulations depending on which of the four classification criteria presented earlier is adopted for classification of fisheries subsidies. Among these international standards, the WTO NGR Chair's standard, which prohibits fisheries subsidies contributing to overcapacity and overfishing, is the most rigorous. This criterion classifies vessel construction, modification or repair/support on operating costs (like fuel and license fees), transfer of vessels, port infrastructure exclusively or predominantly for fishing activities, income and price support, landing and 'in or near' port processing activities subsidies associated to any vessels engaged in illegal, unreported or unregulated (IUU) fishing, subsidies affecting fish stocks that are in 'unequivocally in overfished condition' as prohibited subsidies.

If this standard is adopted for classification of fisheries subsidies., many fisheries subsidies of Korea will be able to be classified as prohibited subsidies. For example, in the case of subsidy for National fishing port construction, it is classified as a prohibited subsidy if the WTO NGR Chair's standard is adopted for classification of the fisheries subsidies. But it will not be classified as a prohibited subsidy if one of the UR SCM Agreement standard, SDGs goal standard, and Sustainability of Fish Stocks standard is adopted for classification of the fisheries subsidies. Therefore, in

all the negotiations that are related to fisheries subsidies, all four standards should be taken into account so that the least or less stringent criterion for banning fisheries subsidies is set as a standard in the fisheries subsidies negotiations with international organizations.

IV. Conclusions

From the results of the discussions on fisheries subsidies that began in the early 1990s and continued up to 2019, particularly from the UN SDG and the 11th WTO Ministerial Conference in 2017, we can expect the results of the 12th WTO Ministerial Conference that is being held in the late 2019. What will be discussed in the 12th WTO Ministerial Conference is not new themes. What will be done in the conference is to complete the discussion of old themes on prohibitive fisheries subsidies. Thus, the expected result would be to ban fisheries subsidies that contribute to the enhancement of fishery productivity, including the ban on illegal, unreported, and unregulated (IUU) fishing in oceans and offshore. The issue of IUU fishing is not alien to Korea. In 2013, Korea introduced IUU fishing regulations after being designated IUU fishing country by the EU Fisheries control agency. In 2017, however, two fishing boats ignored the notification of fishing closures and operated in Antarctica. As a result, South Korea has been marked as a country engaging in illegal, unreported, and unregulated (IUU) fishing in NOAA's biennial report. The stronger measures for preventing this kind of incident is needed.

The ultimate goal of fisheries subsidies is to secure maximum resources. The ultimate goal of prohibiting fisheries subsidies is to secure

sustainable resources production. If fisheries subsidies help to lead to sustainable production activities, it is unnecessary to prohibit fisheries subsidies. However, since the sustainable production and the maximum production are not easy to be compatible, fisheries subsidies should be granted, contributing to the production of sustainable resources. For example, a constructor of ocean ranches or artificial reefs can be a safe grantee of fisheries subsidies in a sense that they are free from the four criteria for the classification of fisheries subsidies.

The criteria for classifying fisheries subsidies as prohibited subsidies may vary among the related international organizations and scholars. We examined four criteria, set by the UR SCM Agreement, WTO NGR Chair, SDGs goal, and Sustainability of Fish Stocks. Korea's fisheries subsidies may or may not be subject to regulation depending on which of the four classification criteria is adopted for classification of fisheries subsidies. Although there are differences, the most useful criterion should be applied or adopted in the negotiations on fisheries subsidies. Of course, the stringent organization such as WTO would like to apply the strictest standard for the prohibition of fisheries subsidies. But it is necessary to negotiate for the softer classification standard from the Korea's perspective. Alternatively, Korea can redesign the new fisheries subsidies that will be free from the harshest classification standard, i.e., WTO NGR Chair's standard. In that case, it will take some time, money and sacrifice of stakeholder being excluded from the support under the revised subsidies system.

Fisheries subsidy designated by the Ministry of Oceans and Fisheries as subsidies for Preparation for Fisheries Subsidies Negotiation with

International Organization since 2017 have been granted to the FAO World Fisheries University Support Program and the FTA Fisheries Cooperation Project between Korea and New Zealand. This subsidy, as its title indicates, needs to be used to nurture bargaining experts in negotiations on more urgent fisheries subsidies.

The fisheries subsidies negotiations are not only the task of the Ministry of Oceans and Fisheries, but also the task of the Ministry of Foreign Affairs and the Ministry of Trade, Industry and Energy. They are the issues inter-connected to subsidies, industry, and trade. Thus all the three Ministries should join the forces altogether and work for more favorable fisheries subsidies negotiations.

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- Received : 05 December, 2019
 - Revised : 18 December, 2019
 - Accepted : 09 January, 2020