Bridging a new concept of fisheries subsidies policy to support sustainable fisheries in Indonesia

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Abstract. Indonesia protested the policy of the WTO, which required the abolition of subsidies. Therefore, Indonesia, through the Ministry of Maritime Affairs and Fisheries and the Ministry of Foreign Affairs then attempted to roll out an exception to the WTO provisions. At the 11th Ministerial Conference in Buenos Aires, Argentina, the ministers of the member countries of the WTO agreed to accommodate the interests pursued by Indonesia to review the application of fisheries subsidies. This research then analyzes fisheries subsidies practice in Indonesia. Overall, the results of this study indicate that the policy of fisheries subsidies implemented by the government has not been planned with good policies and management so that the subsidy has an impact on overfishing, overcapacity or IUU Fishing. Therefore, the author initiated the Co-management of Green Fisheries Subsidy policy. The core of this idea focuses on the management of fisheries subsidies that support the sustainability of fisheries resources involving various relevant stakeholders. This idea uses seven principles which are then applied in the stages of establishing a policy of providing subsidies in each region based on the bottom-up principle so that the implementation of subsidies will be more effective and efficient based on the needs of each region. The author uses a normative juridical research method by examining library materials or other secondary materials. The author uses the literature study. The tools used are documents in the form of primary, secondary, and non-legal materials. The data obtained were analyzed qualitatively, then presented descriptively.

1. Introduction

Even though subsidies are unfair trading actions, in principle subsidies can be carried out in a limited manner according to WTO provisions as long as they do not cause effects that can harm other parties [1]. The exception is made because subsidies are commonly carried out by the state to increase prosperity and protect domestic interests. One issue of subsidies that are often questioned among WTO member countries is regarding the practice of subsidies in the fisheries and fishery products [2]. The difference in opinion about the practice of subsidies in the fisheries sector is due to several studies stating that the existence of subsidies in the fisheries sector creates excessive fishing (overfishing). The long-term result is that fish stocks will run out, so fisheries resources will not be sustainable [3].

According to the FAO report, up to 2013, the world's total fisheries subsidies reached US$ 35 million US dollars and the US$20 million of them is estimated to have directly contributed to increased fishing capacity. Asia and the European Union are the regions with the highest fisheries subsidies, each reaching US$ 16 billion and US$ 6 billion. Subsequent sequences were North Africa, Latin America and the Caribbean, North America, Oceania, and Sub-Saharan Africa [3].
Indonesia, one of the developing countries that have an enormous potential of fisheries and fishery products, has an interest in continuing to provide subsidies in the field of fisheries and fishery products to protect their national interests. Direct subsidies, such as special credit schemes for fishermen, are still needed by Indonesia to help the welfare of fishermen. Direct subsidies need to be accompanied by the design of fisheries resource management [4]. Therefore, Indonesia protested the policy of the WTO, which required the abolition of subsidies at the fourth Ministerial Conference in 2005 in Hong Kong. However, as a WTO member country, Indonesia is bound to implement and harmonize its national legislation, so that it complies with the GATT-WTO provisions, including provisions regarding subsidies stipulated in the SCM Agreement. So that Indonesia through the Ministry of Maritime Affairs and Fisheries then tried to roll out the notable exception to the WTO provisions with the concept of special and differential treatment (SDT) specifically for developing countries and less developed economies (LDCs). Finally, at the 11th Ministerial Conference, December 10-13, 2017 in Buenos Aires, Argentina, the ministers of the member countries of the World Trade Organization (WTO) agreed to accommodate the interests of Indonesia in the form of eradicating Illegal, Unregulated and Unreported (IUU) fishing and a review of the application of fisheries subsidies.

Although Indonesia's interests related to fisheries subsidies have been accommodated at the WTO meeting, the Government must realize that the spirit of subsidizing restrictions is one of them to prevent overfishing that has an impact on the sustainability of world fish stocks which will also affect the domestic interests of Indonesian people. Therefore, the Government must guarantee that the fisheries subsidy program rolled out does not have an impact on overfishing actions. However, based on several research findings, it was found facts in the field which showed that the existence of fisheries subsidies, especially fuel subsidies for fishermen were misused and carried out overfishing. For example, research collaboration between Universitas Kristen Artha Wacana Kupang, the Marine and Fisheries Office of East Flores Regency, which was facilitated by the World Wildlife Fund (WWF) Indonesia in 2013 found that the allocation of fisheries subsidies in East Flores District in 2011 and 2012 was allocated to programs that contribute to overcapacity, leaving little funds for sustainable fisheries management programs [5].

2. Research methods

2.1. Type and period of research

Following the title of this research, the writer in conducting this research used a type of normative juridical research that is legal research methods conducted by examining library materials or other secondary materials, that will focus on reviewing new regulatory conceptual concepts related to fisheries subsidies in Indonesia. The research was carried out for six months, which began in November 2018 until May 2019.

2.2. Types and data sources

The types of data used in this research are secondary data sourced from primary legal materials in the form of international legal instruments and national law as well as secondary legal material in the form of research results, textbooks, scientific journals, newspapers (newspapers), and news from the internet relevant to this study.

2.3. Data collection technique

Data collection techniques used are literature studies, which are collecting, identifying, clarifying, and analyzing data for understanding, recording, or quoting data. Library studies are carried out through the following stages:

1) Determine in advance the data on primary and secondary legal materials
2) Identify the problems that are needed
3) Inventory of data relevant to the formulation of the problem.
2.4. Processing and analysis of data
In this study, the data obtained through the literature study will be analyzed qualitatively then presented descriptively, namely by describing, explaining and describing the review of international law related to the concept of the new arrangement related to fisheries subsidies in Indonesia.

3. Results and discussion

3.1. Result
Indonesia has 2.7 million fishermen, both those operating in the sea and public waters. Of these, around 556,349 ship units are operating, and 95.6 percent of them are small-scale vessels operating around the coast or a few miles from the coast. The vessels have 170,938 units of motorized boat specifications, 225,786 outboard motorized boats, 123,748 units of motorboats under 5 GT, and 5 GT motorboats and 10 GT motorboats reaching 35,877 units [6].

Fisheries production of Indonesia in 2016 reached 22,582 million tons, consisting of capture fisheries production of 6,580 million tons and aquaculture of 16,002 million tons.

Table 1. Fisheries Production According to Subsector (Thousand Tons) 2012-2016

| Subsector                  | 2012  | 2013  | 2014  | 2015  | 2016  |
|---------------------------|-------|-------|-------|-------|-------|
| Aquaculture               |       |       |       |       |       |
| Marine Aquaculture        | 5,770 | 8,379 | 9,035 | 10,174| 9,773 |
| Ponds                     | 1,757 | 2,345 | 2,428 | 2,499 | 3,012 |
| Pool                      | 1,434 | 1,774 | 1,964 | 2,043 | 2,289 |
| Cage                      | 178   | 200   | 221   | 194   | 204   |
| Floating Nets             | 455   | 505   | 501   | 536   | 502   |
| Step on the net           | -     | -     | 66    | 41    | 43    |
| Rice fields               | 82    | 97    | 144   | 148   | 178   |
| Amount of Aquaculture     | 9,676 | 13,301| 14,359| 15,634| 16,002|
| Capture Fisheries         |       |       |       |       |       |
| Marine Fisheries          | 5,436 | 5,707 | 6,038 | 6,205 | 6,115 |
| Public waters             | 394   | 398   | 447   | 473   | 465   |
| Number of Capture Fisheries| 5,829 | 6,105 | 6,484 | 6,678 | 6,580 |
| Total                     | 15,505| 19,406| 20,843| 22,312| 22,582|

Source: Direktorat Jenderal Perikanan Tangkap dan Direktorat Jenderal Perikanan Budidaya.

At the consumption level, Indonesian fisheries production still has to compete with imported fishery products. Data from the Ministry of Maritime Affairs and Fisheries the volume of Indonesian fish imports from January to November 2012-2017 increased by 1.61%. The victim of the existence of imported fishery products is the fate of fisherman. With simple equipment and limited capital, small fishermen will find it difficult to compete with entrepreneurs in the fisheries sector. If small fishermen are not protected by the government through assistance programs, many fishermen will change professions.

3.1.1. Form of subsidies. The definition of subsidies is authentically arranged in an Agreement on Subsidies and Countervailing Measures (SCM) as one of the results of the Uruguay round. Previous subsidy arrangements at both the GATT and the Tokyo Round have not succeeded in making a specific definition of subsidies. Subsidies, according to SCM Article 1.1, points a and b are if there is
financial assistance from the government or public institutions in the territory of the member country. These forms of financial assistance are divided into four, namely; (1) direct cash assistance; (2) fiscal incentives such as tax deductions; (3) assistance in providing goods; or services other than infrastructure or purchasing goods and (4) paying the burden that must be paid by private agencies. Practices in several cases at the WTO state that to determine whether a country is subsidizing or not have fulfilled the two elements below, namely [7]: firstly because of financial contributions and the second because of profits (benefit). The definition of financial assistance based on the history of the formation of SCM is that not all government financial assistance can provide benefits. Therefore, SCM limits that the first element of subsidies that must be fulfilled is the existence of financial assistance from the government or public bodies.

Fisheries subsidies are financial transfers, directly or indirectly, from public institutions to the fisheries sector to provide more benefits to this sector. Whereas, the Food and Agricultural Organization of the United Nations (FAO) defines fisheries subsidies as "Government actions outside of normal practices - fisheries industry in the short-, medium- or long term"[8]. The definition of fisheries subsidies according to the FAO above states that fisheries subsidies occur when the government does or does not do anything outside the practice in general to modify the potential benefits obtained by the fishing industry. The government, in this definition, is interpreted to be broad, namely not only the actions or omission of government agencies or public institutions in the fisheries sector. The condition is that action or omission provides significant benefits to the fishing industry [8]. The fishing industry referred to in the FAO definition has several meanings. The entire fishing industry, from upstream to downstream, is included in the definition. Also, the above understanding does not only regulate related to capture fisheries but also aquaculture, large and small industries, for commercial and recreational purposes [8]. Thus, the scope of the fishing industry in the FAO definition is still very wide.

3.1.2. Fisheries Subsidies in Indonesia. Indonesia Central Bureau of Statistics (BPS) said that there was 63.47 percent of the total number of fishermen recorded as poor people and living in coastal and rural areas. Those who are called poor are earning IDR 1.2 million per month. The problems that fishermen always face are tools and fishing vessels, operational costs for fishing, such as fuel subsidies, capital and insurance schemes for fishermen, as well as tax and retribution exemptions; catch facilities and supporting facilities; appropriate information related to fishing and weather areas so as to facilitate fishermen in carrying out more effective and efficient fishing operations, as well as education, training and fisheries extension assistance. Based on these data, the provision of subsidies for fishermen is still very much needed. Subsidies for fishermen are mandated by the Indonesian Constitution. Because of the fact, until now, Indonesian fishermen still desperately need government support related to the various problems they face.

Three national policies, namely Law No. 31 of 2004 concerning Fisheries juncto Law Number 45 of 2009 concerning Amendments to Law Number 31 of 2004 concerning Fisheries, Law Number 32 of 2014 concerning Marine, and Law Number 7 of 2016 concerning Protection and Empowerment of Fishermen, Fish Cultivators, and Salt Farmers, there are at least 24 forms of mandated subsidy policy actions. The policy of the law requires States to attend to meet the basic needs of small-scale traditional fishermen. That, in accordance with the commitment of the Government of Indonesia to protect small-scale fisheries according to the FAO Guidelines on Small-Scale Fisheries Protection in the Context of Reducing Poverty and Food Security in 2014.

Problems related to subsidies that are still a dilemma and polemic are facts based on research, only around 16 percent of the total fisheries subsidies from the Government of Indonesia that reach small-scale traditional fishermen. In contrast, around 90 percent of fisheries subsidies are given exclusively to large-scale fishing industries that contribute to overfishing [6].

The fishing fleet in Indonesia is still dominated by small vessels measuring under ten gross ton (GT). In accordance with Law Number 7 of 2016 concerning Protection and Empowerment of Fishermen, Fish Cultivators, and Salt Farmers, small vessels under 10 GT are categorized as small
fishing boats. With this status, the owner of the sized boat then gets various facilities from the Ministry of Maritime Affairs and Fisheries such as subsidies and other assistance policies. Among the forms of subsidies provided by the Government of Indonesia for the fisheries and marine sector, are subsidies for fuel oil in accordance with the Minister of Energy and Mineral Resources Regulation Number 6 of 2014. Under the regulation, ships with a size of 30 gross tons (GT) are allowed to receive diesel subsidies. The policy was deemed not right on target because there were still small-sized vessels that were more entitled to receive subsidies.

Regulations concerning fisheries subsidies are also included in Law No. 31 of 2004 concerning Fisheries. Law Number 45 of 2009 concerning Amendments to Law Number 31 of 2004 concerning Fisheries. Article 48 paragraph 2 of Law Number 31 of 2004 concerning fisheries regulates that levies are not permitted for small fishermen and small fish cultivators. Also, Chapter IX (Article 57-59) the same law regulates about subsidies by providing education, training, and fisheries extension assistance. While Chapter X (Articles 60-64) regulates assistance through the empowerment of small fishermen and cultivators power of small fish. Then there are also regulations in fields specifically related to fisheries, for example, the provision of fuel subsidies for fishermen.

Indonesia for Global Justice (IGJ) states that 90 percent of fisherman households in Indonesia always spend 60 percent on production costs just to buy fuel [9]. This condition is inversely proportional to the subsidies received by large vessels measuring 30 GT. The occurrence of economic inequality can be seen between small-scale fishermen and the large-scale fishing industry due to the unfair distribution of fisheries subsidies. The elimination of fisheries subsidies should not be carried out thoroughly, not intended for small-scale traditional fishermen, but should be focused on large-scale capture fisheries business actors. The accuracy of the data about fishermen in the small fishing category must be valid so that the subsidy is truly on target.

Another example of government facilitation is activities for strengthening and developing foreign marketing to support the performance of fisheries export. In addition to the form of subsidy above, the Government also conducts several types of fisheries subsidies. Classification of fisheries subsidies conducted by Indonesia and the risk of excess capture, namely:

| No. | Form of Subsidies                                                                 | Type of risk | Level of risk |
|-----|----------------------------------------------------------------------------------|--------------|---------------|
| 1   | Procurement and Modernization of ships and fishing gear                           | Negative     | Very high     |
| 2   | Provision of operational costs                                                   | Negative     | Very high     |
| 3   | Provision of access to capital                                                   | Negative     | High          |
| 4   | Infrastructure procurement                                                        | Negative     | Medium        |
| 5   | Marketing and promotion assistance                                               | Negative     | Medium        |
| 6   | Introducing skills in fishing techniques                                          | Negative     | Medium        |
| 7   | Other social assistance                                                           | Negative     | Medium        |
| 8   | Introducing skills in adding value to products and other additional skills       | Negative     | Low           |
| 9   | Introducing skills in fisheries resource management and conservation              | Positive     | -             |

Source: A. Ghofar, et al., 2008, Selected Indonesian Fisheries Subsidies: Quantitative and Qualitative Assessment of Policy Coherence and Effectiveness, The Nature Conservation-Coral Triangle [10].

The formation and implementation of various forms of fisheries subsidy policies by the government to fishermen should be appreciated because this proves that the government still cares about the condition of small fishermen. However, the government must realize that the policy of providing subsidies so far has received protests from several WTO member countries because considered to interfere with a fair trade order, and many studies that prove subsidies have an impact on reducing global fish stocks. Thus, one of the issues of subsidies that are often disputed by many WTO members
is regarding the practice of subsidies in the fisheries and fishery products [2]. In 2005, the WTO then required the abolition of subsidies at the VI Ministerial Conference in Hong Kong. Furthermore, on November 30, 2007, the Chairman of Negotiation Group on Rule first presented the Chair’s Draft of the Anti Dumping and Subsidies and Countervailing Measures (Chair’s Draft).

Almost all of the seven types of subsidies that are prohibited in Article I (I.1) Chair's Draft still carried out by the Indonesian Government, because the government considers these subsidies still need to be given to help improve the welfare of fishermen. Thus, the government then protested the WTO policy and tried to submit several proposals to support the concept of Special and Differential Treatment that applies specifically to developing countries. So, in 2017, at the 11th Ministerial Conference of WTO member countries, it did not succeed in agreeing to the fisheries subsidy ban, so that Indonesia can continue its policy of providing subsidies in the fisheries sector. However, seeing the current development of increasing pressure and protests for the elimination of fisheries subsidies from "friend of fish" countries as well as from various NGOs engaged in the environment, it is very likely that the rules for the elimination of fisheries subsidies in the future will soon be realized. Therefore, fisheries subsidy policies rolled out by the government should have been formed and implemented in a planned manner with effective management with the ultimate goal of achieving fishermen's independence which was followed by the elimination of all forms of subsidies in the fisheries sector.

In general, the subsidies provided by the government have two forms, namely direct and indirect subsidies, but in the implementation, more forms of direct subsidies are given, such as modernization of ships and fishing gear, reduction of fisheries taxes, fuel subsidies, funding assistance programs to fishermen, and others. The distribution of these forms of subsidies is generally given directly to individuals, groups of fishermen or related NGOs, but after the distribution of subsidies is implemented, the evaluation mechanism carried out by the government has not been properly regulated and implemented. Thus, much of the proceeds from the provision of subsidies which turned out to be indicated were used for fishing activities which had an impact on overfishing, overcapacity and IUU Fishing. This is reinforced by research conducted by Destructive Fishing Watch (DFW) Indonesia, which found that many small fishermen were involved in the practice of IUU Fishing. According to the DWF study, the practice of IUU Fishing by small fishermen occurs because of the rules in Indonesia that do not require registration and licensing for vessels with a maximum size of 10GT which are then utilized by unscrupulous fishermen and fisheries corporation [11].

3.1.3. New Concept of Fisheries Subsidies Policy to Support Sustainable Fisheries in Indonesia. The author sees that, so far, the policy of providing subsidies has generally been formed from unilateral government decisions, still not involving local stakeholders. In its history, fisheries management in Indonesia began with initiatives that emerged from local communities by using the understanding they had, namely local knowledge and then institutionalized using the customary law system. Marine customary law practices such as Panglima Laot in Aceh, Sasi in Maluku, Awig-Awig in Bali and West Nusa Tenggara are just a few of the many examples of this customary fishery system. Reducing community roles makes fisheries management inefficient. The conflict between fishermen and fisheries resource degradation is one of the effects of the problem of centralization of fisheries management. Factors in the imbalance of roles between the State and the community in fisheries management have become important discussions which then underlie the importance of collaboration between parties in fisheries management. This is similar to what was stated by Berkes who argues that the management of fisheries resources cannot be separated from the role of various interested parties, namely fishermen, government, non-governmental institutions, academics, and other fishermen (traders, fish processing groups, and others) [12]. The involvement of various stakeholders in fisheries management is known as co-management.

Borrini-Feyabarend defines co-management as a situation where more than one party (stakeholder) negotiates, defines and guarantees the division of roles in management and responsibility for the area or system of resources [13]. In the context of fisheries, co-management of fisheries itself is defined as
a management pattern where the government and actors who use resources (user groups) share responsibility in the management and utilization of fisheries resources with the aim of realizing a balance of economic and social goals within the framework of the preservation of ecosystems and fisheries resources [14].

Pomeroy and Rivera Guieb suggest that there are 5 (five) large types of co-management related to the distribution of responsibilities between the government and fisheries actors, namely [15]:

1) Instructive: This type occurs when there are minimal communication and exchange of information between the government and fisheries actors. This type is different from the centralized regime in terms of where there is a mechanism for dialogue between the government and the fisheries actors, but it remains in the context of information instruction from what has been decided by the government.

2) Consultative: There is a mechanism for dialogue between the government and the fisheries actors, but decision making is still carried out by the government.

3) Cooperative: In this level, the government and fisheries actors work together in making decisions as partners who have the same bargaining position (equal partner).

4) Advisory: In this framework, the fisheries actors input for decision making about fisheries, then the government determines the decision.

5) Information: The government delegates decision making to fisheries actors to be informed back to the government.

The co-management then according to the author perspective is needed to be developed, not only limited to how each stakeholder understands their respective roles in fisheries governance, but there must be a clear policy concept and implementation to support the sustainability of fisheries resources. The new concept which the writer then concludes is "co-management of green fisheries subsidies," where this concept focuses on fisheries subsidy management that supports the sustainability of fisheries resources. There are several principles that form the basis for implementing this concept, namely:

1) Providing subsidies through a participatory, proactive, progressive, accommodative, adaptive and evaluative planning and budgeting process.

2) Subsidies provided should not lead to or can have an impact on overfishing, overcapacity, and IUU Fishing.

3) Subsidies are given based on the identification of government funding by referring to three types of subsidies, namely: (1) beneficial subsidies; (2) fisheries capacity enhancing subsidies, and (3) subsidies that are not always clearly defined (ambiguous subsidies). The identification is carried out by the government based on co-management principles that involve the active participation of various stakeholders, and the results are formulated in the table "Guidelines for identification of fisheries subsidies".

4) Subsidies are given through the appropriate program screening stages based on the needs of recipients of subsidies and fisheries resources in the local area, which fall into the "green" category.

5) The subsidy program is carried out within a certain period and prioritized to fishermen, groups of fishermen or non-governmental organizations that have implemented or committed to managing "green fisheries".

6) The provision of subsidies must be accompanied by the transfer of green fisheries management knowledge that is given regularly and through an evaluation and reporting process to improve fishermen's skills in managing fisheries resources in a sustainable manner, increase income and welfare of fishermen.

7) In the short or long term, directly or indirectly, it is expected to restore the condition of fish stocks and coastal, marine and aquatic ecosystems.

Some of the principles above were applied in the stages of establishing a policy of providing subsidies in each region based on the butt-up principle so that financing would be more effective and efficient based on the needs of each region. These stages are arranged in the form of guidelines for the co-management of green fisheries subsidies described in the following flow diagram.
Figure 1. Implementation phase flow chart of co-management of green fisheries subsidies

1) Formation of Executive Team and Appraisal
   The Implementing Team and Appraisers are the technical teams that implement and evaluates each stage that starts from the initial stage of identification to the implementation of the results of monitoring and evaluation of the subsidy program provided. This team is a cross-sectoral working group formed by, working autonomously and independently of the mandate and reporting and providing advice and recommendations to the Regent/Mayor. This team is led directly by the Head of the Department of Marine and Fisheries in the districts/city level and involves coordination between technical agencies and experts with the education, expertise, and experience needed.

2) Identification of Local Fisheries Development Needs
   At this stage, analysis is carried out in each zone regarding the need for fisheries development in the area. At this stage, it is very important to use the co-management principle in gathering various information from various local stakeholders such as the needs of fishermen or fishing groups, fisheries resource data, and various fisheries issues including overfishing, overcapacity or IUU Fishing in the area. The results of this identification are then analyzed and compiled as data on the quality of fisheries management in the area.

3) Grouping Analysis of Subsidized Typologies
   After an analysis of the stages of the needs of an area is carried out, the next step is to group the typology of subsidies in the area. The typology of the subsidy is divided into 3, namely (a) beneficial subsidies (beneficial subsidies); (b) fisheries capacity enhancing subsidies, and (c) subsidies that are not always clearly defined (ambiguous subsidies). Grouping is made in table form in green format for typology a, red for typology b, and yellow for typology c. This table will later become a reference for the government's consideration in determining the policy of providing subsidies in the area. The government must prioritize subsidies only on the first typology, while the second typology subsidy is only given with careful consideration only for the condition of the region or type of fisheries with fish resources that are still in the underexploited category, but must be accompanied by strict control mechanisms, while for the third typology can be given with the precautionary principle if it is needed and identified as not having an impact on overfishing, overcapacity or IUU Fishing in the area.

4) Identification of Assistance Programs, Beneficiary Criteria and Conditions
After the second stage has been implemented, some forms of subsidies will emerge that can be applied in an area. Furthermore, these forms of subsidies are formulated in the form of a green fisheries development program which essentially plans to provide subsidies accompanied by a variety of measurable and scheduled activities for fishermen, groups of fishermen, coastal communities and non-governmental organizations. The activities in question are in the form of responsible and sustainable fisheries management training, training in green fisheries product management, training of fishermen financial management, assistance in the formation of fishing cooperatives or joint business groups and so on. The point is subsidies should not be given for granted, there must be a mentoring and training program that must be followed by beneficiaries of these subsidies as a condition to get subsidies. The requirements must be regulated regarding the criteria and conditions for subsidized beneficiaries. This commitment must be affirmed by the government through technical regulations on fisheries subsidies and must be evaluated regularly.

5) Identification of Financing
The next stage is the identification of the financing needed for the implementation of subsidies and programs that have been formulated. Funding for fisheries subsidies generally originates from the central government and regional government budgets stipulated in the Work Plan, but the programs formulated in point 4 are not only dependent on these two funding sources. Back to the principle of co-management, local stakeholders can seek additional funding outside of these two sources, including corporate social responsibility funds from state-owned enterprises, private companies, donors, and so on. For this reason, it is very important to encourage the formation of groups of fishermen in each region that becomes a place to carry out these objectives.

6) Monitoring and Evaluation (Monev) Implementation of Green Fisheries Subsidy Co-management
Monitoring and Evaluation of the Implementation of the Green Fisheries Subsidy Co-management is carried out with a certain budget period which can be divided into several categories, namely: (a) Monitoring and Evaluation conducted for programs with less than 1 year implementation, (b) Monitoring and evaluation for all programs within one budget year, (c) Monitoring and evaluation carried out in each period of the Medium Term Program Plan, (d) Monitoring and evaluation carried out in each period of the Long Term Program Plan.

3.2. Discussion
The application of this co-management has been mandated in various laws and regulations related to Fisheries Management. Article 2 of Law No. 31 of 2004 concerning Fisheries confirms that fisheries management is carried out based on the principles of benefit, fairness, partnership, equity, integration, efficiency, and sustainability. The principles referred to in the article, are the basic core of fisheries co-management objectives, especially those related to partnerships, equity, and integration. In Article 6 paragraph (2) of Law No.31/2004 concerning Fisheries, it is regulated that the interests of fishing and fish cultivation must consider customary law and/or local wisdom and pay attention to community participation.

In addition, Article 1 paragraph (7) of Law No. 45 of 2009 concerning Fisheries describes the definition of fisheries management, namely all efforts, including integrated processes in information collection, analysis, planning, consultation, decision making, allocation of fish resources, implementation and law enforcement of the provisions of legislation in the fisheries sector, which carried out by the government or other authorities directed at achieving the sustainability of the productivity of aquatic biological resources and agreed objectives. Article 7 paragraph (1) in the framework of supporting fish resource management policies, the Minister is tasked with establishing fisheries management plans. As well as Article 46 Paragraph (1) The Government and Regional Government shall arrange and develop a system of information and fisheries statistical data and carry out the collection, processing, analysis, storage, presentation and distribution of potential data, updating data on fish movements, facilities and infrastructure, production, handling, fish processing and marketing, as well as socio-economic data relating to the implementation of fish resource management and development of the fisheries business system.
4. Conclusion

Overall, the results of this study indicate that the policy of fisheries subsidies implemented by the government has not been planned with good policies and management so that the subsidy has an impact on overfishing, overcapacity or IUU Fishing. Therefore, the author initiated the Co-management of Green Fisheries Subsidy policy. The core of this idea focuses on the management of fisheries subsidies that support the sustainability of fisheries resources involving various relevant stakeholders. This idea uses seven principles which are then applied in the stages of establishing a policy of providing subsidies in each region based on the bottom-up principle so that the implementation of subsidies will be more effective and efficient based on the needs of each region.

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