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## MARINE RESOURCE EXPLOITATION ETHICS: ENVIRONMENTAL PHILOSOPHY PERSPECTIVE IN FISHERIES MANAGEMENT

By

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**Abstract:** *The sea is a source of wealth and media in strengthening the unity of the Indonesian state. The large potential of marine resources, especially fisheries resources, makes a significant contribution to state income. Utilization of fisheries resources cannot be separated from various problems, especially regarding the exploitation process which does not pay attention to negative impacts on the environment. Excessive exploitation can also have a negative impact on marine waters as a whole, allowing conflicts to arise and even coming into conflict with international maritime law. To minimize the negative impacts of exploitation, conservation action is the right step and is in line with the concept of sustainable development goals (SDGs). From this article, it can be seen that the concepts of exploitation and conservation should be able to work in balance with the understanding and implementation of the concept of sustainable development. The process of exploiting fishery resources must also pay attention to its impacts, so that it does not cause harm to water conditions and without ignoring carrying capacity conditions existing environment and ecosystem*

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## INTRODUCTION

The sea is a very important resource. The sea has an important function for humans. The sea plays a role as a place to strengthen unity and a source of natural wealth which includes fisheries and other mineral resources (Hasyim Djalal, 1979 in Kurnia, 2008). Indonesia is an archipelagic country with large potential for biological natural resources, especially fisheries. Apart from biological resources, Indonesia also has large non-biological resources which have the potential to be utilized for the welfare of the Indonesian people. KKP (2017), states that the potential for sustainable fisheries resources in Indonesia is 12.54 million tons per year. Meanwhile, the potential for coral reefs in Indonesia's territorial waters is 2.5 million hectares, which have many roles but are vulnerable to change.

The sea is an area that is susceptible to damage to ecosystems and habitats, and is prone to conflict, whether it is conflict between citizens in a country or between citizens and

can even occur between countries. A country in managing a water area cannot be separated from its responsibility for the preservation of those waters. This is stated in international maritime law which is in force to date *yaitu The United Nations Convention on the Law of the Sea* (UNCLOS) 1982. This regulation contains several provisions related to the rights and obligations of a country over its territorial area as well as the legal basis for determining the boundaries of a territorial area. Apart from that, it is also regulated in relation to a country's right to the open sea and its obligations to protect the marine environment from the danger of damage due to exploration and exploitation of natural resources, both biological and non-biological resources.

In its implementation, management, one of which is through the process of exploiting fisheries resources, often has a negative impact on the environment. The exploitation process that does not pay attention to the carrying capacity of the environment is a problem in itself that is very detrimental to the country and the maritime and fisheries community in particular. In fact, this could potentially be the beginning of habitat loss due to environmental damage. To maintain and prevent a negative impact on the environment and its ecosystem, it is appropriate for a process of exploitation to be balanced with conservation. This is so that it can provide benefits to current and future communities (sustainability) of fisheries resources as in line with sustainable development goals (*Sustainable Development Goals/SDGs*).

From the background conditions above, several problem formulations were formulated as follows:

1. What is the perspective of the concept of exploitation and conservation of fisheries resources?
2. What is Indonesia's position in utilizing aquatic resources, especially fisheries, so as not to have a negative impact on the environment?

Referring to the specified problem formulation, an objective can be drawn as follows:

1. Understand the perspective of the concept of exploitation and conservation of fisheries resources.
2. Understand Indonesia's position and role in preserving the aquatic environment in utilizing aquatic resources, especially fisheries.

## METHODS

To obtain data and information that is appropriate to the writing topic, the author uses a method in the form of a library. In using this method, the author conducted a literature study by reading books and scientific writings sourced from journals regarding the environment, natural resources, fisheries resources and sustainable development. The method used will explain existing topics and problems using descriptive analysis.

## FINDING AND DISCUSSION

### Discussion of Exploitation and Conservation

Exploitation of natural resources is an act of utilizing a stock of natural resources in an area. Exploitation of natural resources must be able to provide benefits for the welfare of society and the country's economy, although it is not uncommon to find acts of exploitation that result in harm to the environment and society. Because if there is damage to one of the

biological natural resources, it can have a negative impact (damage) on other biological natural resources or the ecosystem. As stated in Law Number 5 of 1990 concerning Conservation of Biological Natural Resources and Their Ecosystems, it is explained that the elements of biological natural resources and their ecosystems are basically interdependent on one another and influence each other so that damage and extinction of one of the elements will result in disruption of the ecosystem.

Exploitation of biological natural resources can have a negative impact on the environment and society. This can happen due to excessive exploitation. Apart from excessive exploitation, there have also been cases of water pollution in several Indonesian waters and physical ecosystem degradation of mangroves and coral reefs (Dahuri et al., 1996 in Lampe et al., 2005).

Exploitation of natural resources, especially biological natural resources, must take into account the carrying capacity of the environment. Excessive exploitation will be very detrimental to the environment and society, especially in the future. As expressed by Kasmawati (2011), excessive exploitation of natural resources without good planning without paying attention to the carrying capacity of the environment has definitely had the impact of disaster and ecological catastrophe on the sustainability and balance of the ecosystem of human life in this world. The process of excessive exploitation basically denies the essence of the concept of economic democracy as stated in the mandate of article 33 of the 1945 Constitution which prioritizes economic orientation.

According to Baransano (2011), excessive exploitation will result in damage to the ecosystem and result in a decline in the population and even the condition of a species that could lead to extinction. Due to this, it is necessary to take conservation measures for biological natural resources that have been exploited. Natural resource conservation is an effort to maintain or protect natural resources so that they do not suffer damage. Conservation activities will always be related to a region or area, where the region or area itself has the meaning of an area with the main function of protection or cultivation (Law No. 32 of 2009).

### **Potential of Indonesian Fisheries Resources**

Indonesia is an archipelagic country with a sea area of 5.8 million km<sup>2</sup>. Based on data from the KKP as stated in the Decree of the Minister of Maritime Affairs and Fisheries Number 50 of 2017 concerning Estimation of Potential, Number of Permissible Catches, and Level of Utilization of Fish Resources in the Fisheries Management Areas of the Republic of Indonesia, it is stated that the amount of sustainable potential for fish resources is 12, 54 million tons per year consisting of several types of marine fisheries. Of the total marine fisheries potential, according to international regulations, around 10 million tonnes per year can be utilized, or 80% of the entire sustainable potential of existing fish resources. The utilization of these resources to date has only reached 7.53 million tons (Prabowo, 2020). Sustainable potential of marine capture fisheries resources

The large ones in the Republic of Indonesia State Fisheries Management Area (WPP NRI) consist of several types of fish, namely small pelagic fish, large pelagic fish, demersal fish, coral fish, Penaeid shrimp, lobster, crab, crab and squid. Details of sustainable potential and amount The allowable catch (JTB) at each WPP can be seen in table 1.

**Table 1 Estimated Potential and JTB at WPP RI**

<b>WPP</b>	<b>Wilayah Pengelolaan</b>	<b>Potensi Lestari (Ton)</b>	<b>JTB (Ton)</b>
571	Strait of Malacca and Andaman Sea	425.444	340.355
572	Indian Ocean west of Sumatra and the Straits R	1.240.975	992.780
573	Indian Ocean south of Java to the south Nusa Tenggara, Savu Sea and parts of the Timor Sea west	1.267.540	1.014.032
711	Karimata Strait waters, Sea Natuna, and the South China Sea	767.126	613.701
712	Java Sea waters	1.341.632	1.073.306
713	Makassar Strait waters, Bone Bay, Flores Sea, and the Bali Sea	1.177.857	942.286
714	The waters of Tolo Bay and the Banda Sea	788.939	631.151
715	The waters of Tomini Bay, Maluku Sea, Halmahera Sea, Seram Sea and Berau Bay	1.242.526	994.021
716	Sulawesi Sea waters and the north of the island Halmahera	597.139	477.711
717	The waters of Cendrawasih Bay and the Pacific Ocean	1.054.695	843.756
718	Aru Sea, Arafuru Sea and East Timor Sea	2.637.565	2.110.052
<b>Total</b>		<b>12.541.438</b>	<b>10.033.150</b>

Source: processed from Ministerial Decree Number 50 of 2017.

Apart from several potential fishery resources as described above, there are other potentials found in the waters of Indonesia. Indonesia is a country that has a long coastline. Around the coastline and around the islands in Indonesia, there is also a coral reef habitat. Coral reefs are natural resources that have an important role in maintaining an ecosystem in aquatic areas, but their condition is vulnerable to changes in the aquatic environment. One example of the vulnerability of coral reef habitat can be seen in the waters of the Lhokseudu area, Aceh Besar. According to Yuliani et al. (2016), revealed that the amount of coral cover in 2008 at a depth of 2-3 m was 29.7%, while in 2016 coral cover was 20.8%. The percentage data has a comparative decrease of approx 8.9%. If calculated every year until 2016, the Lhokseudu area experienced coral death of around 1.11% per year at a depth of 2-3 m. The area of coral reefs in Indonesian waters is estimated at 2.5 million hectares. According to Hadi et al. (2018), a coral reef ecosystem has an important role for the environment. This is seen from an ecological and socio-economic perspective. From an ecological perspective, reef ecosystems

Corals act as a place or habitat for marine biota which is a source of natural biodiversity that supports an ecosystem. Apart from being a habitat for marine biota, coral reefs also act

as a place to find food, shelter and spawning grounds for several marine biota. Due to these roles, good coral reef ecosystem conditions will be able to increase the productivity of fisheries resources. Considering the large role and benefits provided by a coral reef ecosystem, it is appropriate for coral reefs to receive more attention from the government, both central and regional governments, as well as *stakeholder*. As an effort to preserve coral reefs, we can create a marine conservation area.

As an archipelagic country with large fisheries resource potential, Indonesia has issued various laws and regulations regarding fisheries resource management. Apart from that, regarding the management of coastal areas and small islands, Law Number 1 of 2014 concerning Management of Coastal Areas and Small Islands has also been issued. Some of these regulations are one of the government's efforts and commitments through the Ministry of Maritime Affairs and Fisheries in preserving the potential of fishery resources so that they remain sustainable.

### **Exploitation of Fishery Resources**

Indonesian waters are a water area that has natural wealth in the form of abundant water resources. Both renewable and non-renewable natural resources. Indonesia's ownership of water resources is very strategic for the economy and community survival. Indonesia is a country that has a vast sea area, and has the nickname as a maritime country. Indonesia also has the second longest coast in the world with a coastline of more than 104,000 km consisting of 17,504 islands. With Indonesia's vast territorial waters, Indonesia is a country that has abundant marine natural resources and is supported by the existence of a high environmental carrying capacity. With this potential, it provides enormous benefits for society. The benefits provided by marine resources are human exploitation activities of marine resources to obtain economic benefits, including as a food source and energy source (Ilyasa et al., 2020).

The process of utilizing fisheries resources in Indonesian waters is carried out with reference to fisheries management zones or areas (WPP). As explained previously regarding the sustainable potential of fisheries resources in each WPP, there are 11 WPPs which are areas for utilization of fisheries resources with several provisions that have been stated in Ministerial Regulations.

Maritime Affairs and Fisheries Number 18 of 2013 concerning Fishing Routes and Placement of Fishing Equipment and Fishing Aids in WPP NRI. In this regulation, the process of utilizing fishery resources is regulated by certain rules

varies between WPPs. The map of WPP in Indonesian waters can be seen as shown in Figure 1.





**Figure 1. Map of Indonesian Fisheries Management Areas**

Source: KKP website (kkp.go.id)

With the large potential of Indonesia's fisheries resources, it is necessary to think about how the potential of abundant natural resources can be utilized sustainably for the future. Utilizing fisheries resources through an exploitation process that does not damage the environment will basically be more profitable for society. However, due to greed and the desire to control fisheries resources compared to other parties, the exploitation process tends to ignore ethics and without paying attention to the conditions of the environment's carrying capacity. In fact, the process of exploitation of marine fisheries resources often results in several violations in the form of prohibited fishing activities (*illegal fishing*).

It cannot be denied that the potential of fisheries resources in Indonesian waters is a special attraction. The vast sea area, large fisheries potential, high marine biodiversity, and the geographical position of Indonesia's territorial waters which are the entrance to currents from the Pacific Ocean to the Indian Ocean (Indonesian Cross Flow/Arlindo), encourage large-scale exploitation of fisheries resources. which exists. This is not only caused by exploitation of Indonesian citizens themselves, but several acts of fish theft from other countries also often occur. Apart from that, illegal fishing also often occurs in the form of fishing using prohibited fishing gear.

Until now, the case *illegal fishing* still happens frequently. From January 2017 to October 2018, the government has arrested at least 633 perpetrator vessels *illegal fishing*. Where are the perpetrators' ships? *illegal fishing* These are foreign-flagged and Indonesian-flagged ships. From October 2019 to October 2020, the government has also arrested the perpetrator's ship *illegal fishing* as many as 74 ships (quoted from the KKP website). From these data, it can be concluded that the condition of Indonesia's abundant fisheries resources is still being targeted by irresponsible parties in the process of exploiting fisheries resources.

As explained above, we can see that Indonesia is very rich in fisheries potential, especially in the capture fisheries sector. However, based on data from the KKP (2017), from 11 WPPs there are several types of fish that are known to be in a saturated condition or even *over exploited (over fishing)*. Like the Penaeid shrimp type, almost all WPPs are in good condition *over fishing*. This can be done

It was explained that only the Penaeid shrimp species in WPP 714 and 717 were still in good condition *moderate* (There can still be additional fishing efforts), the remaining 10 WPPs are in good condition for the Penaeid shrimp species *over exploited*. For large pelagic

fish species, conditions at 11 WPPs are already in good condition *fully exploited* (saturated) and *over exploited*. Likewise for the type of fish in the form of lobster shrimp, all WPPs are in good condition *fully exploited* (saturated) and *over exploited*. This shows that there has been massive exploitation pressure on fisheries resources. This condition can also be an indicator that there are problems from an environmental perspective, meaning that a decrease in the number of potential fish resources means there are also problems in the surrounding environment. It is understandable that the existing environment has reduced its carrying capacity in terms of preserving fish and other resources. Details of the utilization conditions for several types of fish in each WPP can be seen in table 2.

**Table 2. Level of Fish Utilization Per Indonesian Fisheries Management Area**

WPP		Shrimp Head	Fish Pelagic Big *	Fish Pelagic Small	Lobster	Information
571	Potential (ton)	59.455	64.444	99.865	673	Utilization Rate (E): E < 0.5 = <i>Moderate</i> , the capture effort can be increased. 0.5 ≤ E < 1 = <i>Fully Exploited</i> , effort arrest maintained with close monitoring. E ≥ 1 = <i>Over exploited</i> , effort arrests must be reduced. *) = large non-Tuna pelagic fish – Skipjack.
	Level utilization	1,59	0,52	0,83	1,3	
572	572 Potential (tons)	8.023	276.755	527.029	1.483	
	Level utilization	1,53	0,95	0,5	0,93	
573	573 Potential (ton)	7.340	586.128	630.521	970	
	Level utilization	1,7	1,06	1,5	0,61	
711	711 Potential (tons)	62.342	185.855	330.284	1.421	
	Level utilization	0,53	0,93	1,41	0,54	
712	712 Potential (tons)	57.965	72.812	364.663	989	
	Level utilization	1,11	0,63	0,38	1,36	
713	714 Potential (tons)	30.404	645.058	208.414	927	
	Level utilization	0,52	1,13	1,23	1,4	
714	715 Potential (tons)	3.180	304.293	165.944	724	

	Level utilization	0,39	0,78	0,44	1,73
715	716 Potential (tons)	6.436	31.659	555.982	846
	Level utilization	0,78	0,97	0,88	1,32
716	717 Potential (tons)	7.945	181.491	332.635	894
	Level utilization	0,5	0,63	0,48	0,75
717	718 Potential (tons)	9.150	65.935	829.188	1.044
	Level utilization	0,46	1	0,7	1,04
718	Level utilization	62.842	818.870	836.973	1.187
	714 Potential (tons)	0,86	0,99	0,51	0,97

Source: processed from KEPMEN KP Number 50 of 2017.

According to Fauzi (2010, in Kusdiantoro et al., 2019), the decline in the quality and quantity of fisheries resources is caused by quite massive pressure on resources. Massive pressure on fish resources can be caused by, among other things, over-exploitation. From

From the description above, it can be seen that the number and types of fish are decreasing, especially in WPPs that have been overexploited (*over fishing*) This is due to, among other things:

1. Decreased environmental carrying capacity

One form of decreasing environmental carrying capacity in relation to fisheries resources is:

a. Damage to coral reefs

Damage to coral reefs will result in a decline in fisheries resources which is generally caused by damage by humans, such as fishing using bombs, taking coral reefs for commercial use in uncontrolled quantities.

b. The decline in sea water quality is usually caused by environmental pollution, such as due to the disposal of various wastes, pollution due to fuel or oil spills and the like.

2. Fishing is illegal and damages the environment

This condition could be a condition that is still common, such as:

a. Fishing uses fishing gear that is not environmentally friendly/damaging

Fishing uses *trawl* which is prohibited, especially in deep waters, can damage coral reefs and also deplete fish reserves due to the transport of all fish including the smallest sizes.

b. Catching fish with bombs/dynamite or the like

There are still many fishermen who fish with bombs/dynamite which has an impact on damaging coral reefs as spawning/breeding places for various types of fish and shrimp.

c. Fishing that does not pay attention to the sustainability of fish and the area.



In some cases, there are certain seasons when fish start to breed. However, some fishing by fishermen does not pay attention to this and the fishing area, which has an impact on the sustainability of fisheries resources in the future.

### Conservation of Fishery Resources

Exploitation of fisheries resources will not be separated from its impact on the environment, both fisheries resources themselves and other natural resources. Currently, the direction and goal of implementing national development is sustainable development. This is as stated in the framework of the National Medium Term Development Plan (RPJMN) for 2020 – 2025. This is also in agreement with world leaders regarding the global action plan, namely *Sustainable Development Goals (SDGs)* confirmed at a meeting held on 25 – 27 September 2015 at UN headquarters, New York, United States and ratified the document *Sustainable Development Goals* (Ishartono and Raharjo, 2016). The concept of sustainable development goals (*Sustainable Development Goals/SDGs*) can be seen from several SDGs goals as in Figure 2.



**Figure 2. 17 Sustainable Development Goals (*Sustainable Development Goals/SDGs*)**

To be able to realize sustainable development, especially for natural fisheries biological resources, management of marine and fisheries resources will never be separated from the conservation function. Conservation activities have been trusted as a management effort that can save and preserve the potential of marine and fisheries resources so that they remain available and can be utilized for the future.

currently and in the future (sustainable). With the sustainable use of marine and fisheries resources, it is hoped that a prosperous, sustainable life can be realized. As with several existing laws and regulations in regulating the management of fisheries resources (such as Law Number 31 of 2004 concerning Fisheries as amended by Law Number 45 of 2009, Law Number 32 of 2004 concerning Regional Government, and Law Number 27 of 2004 2007 concerning Management of Coastal Areas and Small Islands), the most important point in terms of authority in the management of fisheries resource conservation areas is no longer only carried out by the central government but has been partly decentralized into a obligations of local government. The second point is the management of conservation areas using a zoning system, where there are 4 (four) divisions of conservation zones, namely the core zone, sustainable fisheries zone, utilization zone and other zones (Dermawan, 2014).

Conservation activities are actions taken to keep a fishery resource maintained and in a sustainable condition. Pinem (2019), revealed that the aim of conservation and

management of fisheries resources in the high seas is as an effort to manage fisheries resources carried out in the concept of protection, preservation and utilization. With this aim, natural resources, especially fisheries biological resources, can be maintained and maintained and can be enjoyed by the community today and for future generations of people.

In the framework of preserving fish resources, the Indonesian Government has, among other things, done several things, such as:

#### 1. Regarding Regulations

In carrying out efforts to preserve the marine environment, the Indonesian government has issued several regulations related to the conservation of fisheries resources. Indonesia has Law Number 31 of 2004 concerning Fisheries as amended by Law Number 45 of 2009 concerning Amendments to Law Number 31 of 2004. This law states that in the context of managing fish resources, efforts are made to ecosystem conservation, fish species conservation, and fish genetics conservation. Further provisions regarding the conservation of fisheries resources are regulated in Government Regulation Number 60 of 2007 concerning Conservation of Fish Resources. In this regulation, fisheries resource conservation is divided into three types, namely ecosystem conservation, fish species conservation, and fish genetic conservation.

#### 2. Regarding Implementation

Several activities carried out to conserve fish resources in Indonesian waters and seas include:

##### a. Coral Reef Conservation Movement

Some movements related to coral reef protection include:

##### 1) COREMAP Program

COREMAP Program (*Coral Reef Rehabilitation And Management Program*) is a program to save coral reefs in Indonesian waters. The COREMAP program in Indonesia started in 1998 until now.

##### 2) Program ICRG

Program ICRG (*Indonesian Coral Reef Garden*) is a coral reef restoration program through a labor-intensive mechanism launched by the government

to restore the maritime tourism sector which was paralyzed due to the impact of the Covid-19 pandemic. This program will be implemented starting in 2020 at five water locations in Bali Province, namely Nusa Dua, Serangan, Sanur, Pandawa Beach and Buleleng (KKP, 2020).

##### b. Formation of POKMASWAS

The formation of POKMASWAS (Community Monitoring Group) was initiated as an effort to raise public awareness of the importance of protecting fisheries resources, including by preventing fishing with dangerous and unlawful materials/tools and having an impact on the environment and fish resources.

##### c. Determining targets for adding new conservation area land

Setting a target of adding 20 million hectares of new conservation area land is a form of the Indonesian Government's commitment to efforts to encourage marine conservation. The additional conservation area land is an area contained in 11 RI WPPs (KKP, 2018).

These efforts are a commitment of the Indonesian government to preserve the marine environment. However, these efforts are not yet optimal in preserving the environment and

fisheries resources, as reflected, among other things, in the existence of actions that do not reflect the sustainability of fisheries resources and the environment, as evidenced by the discovery of cases of over-exploitation and legal violations in fishing. fish.

### Concept of Sustainable Fisheries Management

The concept of sustainable development is a concept that is implemented in various sectors. One sector that has adopted the concept of sustainable development is the fisheries sector. Sustainable fisheries (*sustainable fisheries*), began to become a global agenda with the existence of the Code of Ethics for Responsible Fisheries (*Code of Conduct for Responsible Fisheries/CCRF*) compiled by FAO in 1995 as published on the official FAO website. The concept of sustainable fisheries development has been enshrined in the CCRF that responsible fisheries management is management that can guarantee the sustainability of fisheries with an effort to ensure a balance between the level of exploitation and fish resources (Erwina, 2017).

According to Law Number 45 of 2009 concerning Amendments to Law Number 31 of 2004 concerning Fisheries, it is stated that fisheries management is all efforts, including integrated processes in gathering information, analysis, planning, consultation, decision making, allocation of fish resources. , and implementation and legal enforcement of laws and regulations in the fisheries sector, carried out by the government or other authorities directed at achieving sustainable productivity of aquatic biological resources and agreed goals. As stated in the fisheries law, one of the principles of fisheries management is sustainable development. So it has become a necessity that fisheries management in all Indonesian fisheries management areas must be carried out in a sustainable manner.

Sustainable development is development that maintains resources so that they remain available and can be utilized for the present and the future. Sustainable development has three main aspects, namely ecological, social and economic aspects. These three aspects are aspects that cannot be separated from the process of utilizing fisheries resources (exploitation), nor

fishery resource conservation measures. A conservation action must also pay attention to these three aspects. A conservation action cannot only pay attention to ecological aspects, but ignore social or economic aspects. In essence, management of natural resources is directed towards human welfare, but while still paying attention to the carrying capacity of the environment. A familiar concept in natural resource management is the Russian Doll concept of sustainable development or often known as the concept *Russian Doll*. Sustainable development concept *Russian Doll* can be seen in picture 3.



### Figure 3. Sustainable Development Concept *Russian Doll*

Source: O'Riordan (1998, in Budiharsono, 2018)

O'Riordan (1998, in Budiharsono, 2018), stated that economic development must be within the framework of social progress and achieved within the limits of environmental carrying capacity. In Figure 3 it can be seen that economic development is in the inner circle, then social development and in the outer circle is the environmental carrying capacity. This shows that economic development and social development must be below or at a maximum within the limits of the existing environmental carrying capacity.

Furthermore, Charles (2001) in his book *Sustainable Fishery System* revealed that the paradigm of sustainable fisheries development must include 4 (four) main aspects, namely ecological sustainability, socio-economic sustainability, community sustainability and institutional sustainability. The explanation of the four main aspects can be described as follows:

#### 1. Ecological sustainability

Ecological sustainability is maintaining the sustainability of fishery resource stocks, so that the use of fishery resources does not exceed the existing carrying capacity.

#### 2. Socio-economic sustainability

Socioeconomic sustainability is maintaining and paying attention to the sustainability of the welfare of society and business actors (*stakeholder*) at a decent level of welfare.

#### 3. Community sustainability

Community sustainability is maintaining and maintaining sustainability community environment so that conducive conditions are maintained.

#### 4. Institutional sustainability

Institutional sustainability is maintaining and maintaining the continuity of good governance through effective institutions to be able to combine three other main aspects, namely ecological sustainability, socio-economic sustainability and community sustainability.

## CONCLUSION

From the description above related to the perspective of the concept of exploitation and conservation of biological natural resources, especially fisheries, the following conclusion can be drawn:

1. Exploitation of fishery resources is the act of utilizing a stock of fishery resources in an area. Meanwhile, conservation is an effort made to maintain and preserve or protect fishery biological resources in a water area.
2. Exploitation is exploiting, while conservation is protecting/preserving. Exploitation and conservation are management actions that should be balanced. This is so that it can provide benefits to society now and in the future (sustainably) by maintaining environmental sustainability and the condition of fisheries resources.
3. One effort that can preserve fisheries resources from the exploitation process is through conservation. Conservation is an effort that is in line with the efforts of world countries in realizing the concept *Sustainable Development Goals* (SDGs).
4. From the description of the discussion, several analyzes can be concluded



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