



The Implication of Sustainable Development Goals on Sustainable Fishery Management Policy

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Abstract. *The Sustainable Development Goals (SDGs) contain seventeen goals that must be achieved by all United Nations (UN) member states by 2030. The goals to be achieved in order to realize sustainable development also include the marine and fisheries sector. Fisheries management policies of countries should be made by taking into account the SDGs in the marine and fisheries sector so that their implementation can encourage the realization of sustainable development. There are two problems studied in this paper, First, the background or philosophical basis for the preparation of the SDGs by states. Second, how the direction of sustainable fisheries management policies by states is based on the SDGs. This study uses a normative research method with an explanation and descriptive method. This study found that considering the content of the SDGs, states seek to advance several elements at once in achieving sustainable development. The elements are people, planet, prosperity, peace, and cooperation. State policies on sustainable fisheries management should consider the goals in the SDGs that have been adopted, especially Goals 1,2,6,12,13, and 14. Such policies are in line with international law and will be able to contribute to the fulfillment of the 17 Goals of the SDGs.*

Keywords: Sustainable development, fishery, policy, marine, SDGs

1. Introduction

The introduction should briefly place the study in a broad context and highlight why it is the sea has an important meaning for the state. Historically, the sea has been shown to have several functions such as a source of food for humans; trade routes; means of conquest; the place where the war was fought; a place for fun or entertainment; a means of separating and unifying the nation; and places of exploitation of natural and mineral resources (1). The sea has an important value in the economic and defense sector of a coastal state. Utilization of marine resources can be an important source of economic growth for a coastal state.

The importance of the sea makes its management must be regulated both through national law and international law. Management of the sea through international law is very important because the sea is interconnected with one another until it crosses national borders. The regulation of the management of the sea and all its contents through international law has a long history starting from the Geneva Conventions on the Law of the Sea to United Nations Convention on the Law of the Sea 1982 (UNCLOS 1982).

UNCLOS 1982 regulates all activities at sea, including the exploration and exploitation of marine fisheries resources. Fishery commodity is a commodity with high economic value. States seem to be competing to exploit fish resources. Market demand for fish and its processed products makes many states (not only coastal state) seriously in making fisheries management policies so that the sustainability of fishery resources can be maintained.

Sustainability of natural resources, not only fishery resources, has become a major concern for states. On September 25th, 2015 at the United Nations (UN) Headquarters, state leaders ratified the Sustainable Development Goals (SDGs) as a global development agreement related to sustainable development. Approximately 193 heads of state attended, including Indonesian Vice President Jusuf Kalla who also endorsed the SDGs Agenda.

The SDGs contain 17 (seventeen) goals to be achieved by states in 2030 in realizing sustainable development in the world. Different from the previous document, namely the Millennium Development Goals (MDGs), the SDGs are designed by involving all parties involved in the sustainable development process, namely the Government, Civil Society Organizations (CSOs), the private sector, academics, and others (2). The existence of the SDGs is a manifestation of the awareness of states that realizing sustainable development requires international cooperation by achieving sustainable development together without leaving each other.

Efforts to realize sustainable development are carried out by promoting balanced social, economic and environmental aspects in various fields including fisheries. In particular, states also set an agenda for development goals in the marine and fisheries sector in the SDGs. It is interesting to study the background or philosophical basis for the preparation of the SDGs by states and how the direction of sustainable fisheries management policies by states is based on the SDGs. The results of this study can be used as a basis for formulating fisheries management policies so that they are in line with what has been agreed in the SDGs.

2. Methods

This research used normative research method with analyzing the of SDGs and direction of sustainable fisheries management policies by states through the SDGs in the fields of marine and fishery. The statute and conceptual approach were used for this research. This article used a statute approach by examining several related international law instruments such as UNCLOS 1982, General Assembly Resolution, Rio Declaration and Agenda 21. Conceptual approach is used by analyzed several legal concepts such as sustainable development, fishery management policy, sovereign rights, and sustainable fisheries management. This research was conducted by explanation and descriptive method about the prescription how the state can determine the fishery policies in line with the SDGs.

3. Results and Discussion

3.1. History of Preparation and Adoption of Sustainable Development Goals (SDGs)

SDGs contain steps or goals that must be achieved by states together in achieving sustainable development. The history of sustainable development has begun long before the existence of the SDGs. The United Nations Conference on the Human Environment (Stockholm Conference) is the first United Nations (UN) conference to discuss sustainable development. The Stockholm Conference was held on 5 – 16 June 1972.

Through the Stockholm Conference, states are determined to reduce damage to natural resources and implement conservation of natural resources. This is done by integrating three aspects, namely environmental, economic, and social aspects (3). This is the beginning of the concept of sustainable development. The Stockholm Conference was held because states are aware that there has been damage on earth due to human actions such as water and air pollution, damage to the ecological balance, and damage to renewable and non-renewable natural resources. These damages are closely related to industrial and

technological development. Overcoming the damage that occurs requires cooperation from all states in the world, both developing and developed states. Developing states need their industrialization development assisted by developed states. But on the other hand, such development is often the cause of environmental damage (4).

The Stockholm Conference produced the Declaration of the United Nations Conference on the Human Environment in 1972 (Stockholm Declaration) which contained a statement by states to improve environmental conditions to achieve sustainable development. The Stockholm Declaration has no binding legal force. Although not formally binding, this declaration influences the development of legal rules and principles, the work and actions of international organizations, international jurisprudence, or even directly on state practice (5). The contents of this declaration affect the actions of international organizations and states directly, especially with regard to sustainable development.

Based on principles 8 and 15 of the Stockholm Declaration, efforts to improve environmental conditions cannot take economic and social aspects into account. Development carried out by states must pay attention to three aspects in a balanced way, namely environmental, economic, and social aspects. Development is carried out without being able to exclude any of the three aspects. Sustainable development provides a multidimensional way to achieve recovery and improve the quality of life for everyone (6).

In 1992, another international meeting was held, namely The United Nations Conference on Environment and Development (UNCED) or better known as the Earth Summit. UNCED produced several documents related to sustainable development such as the Rio Declaration on Environment and Development 1992 (Rio Declaration) and Agenda 21. UNCED focuses on the study of how social and economic aspects affect the environment. The result of UNCED is the concept of sustainable development which integrates and balances economic, social and environmental dimensions. Integration between economic, social and environmental aspects in meeting human needs is very important to maintain human life on earth (7). In achieving sustainable development, economic development, social development, and environmental conservation are carried out simultaneously. What distinguishes it from previous conferences is that UNCED has also produced strategies to involve communities in achieving sustainable development.

According to the Rio Declaration, sustainable development requires a balance of three aspects, namely economic, environmental and social aspects. In the declaration, what is meant by sustainable development in the economic aspect is development that can improve people's welfare by eradicating poverty and reducing social inequality. In the social aspect, the development carried out can improve the health quality of the community and reduce health risks due to the damage caused. The environmental aspect that must be met is to ensure that the current environmental sustainability can meet the needs of today's society and future generations. In exploiting natural resources, the state must ensure that these activities will not cause environmental damage either in its territory or in the territory of other states.

Through Agenda 21 in Chapter 8, states recognize and commit that achieving sustainable development requires integration and policy coherence in the social, economic and environmental sectors. Legal instruments are used as planning and management tools in achieving sustainable development. In making decisions, a state requires an integrated consideration of social, economic, and environmental issues. Considerations are made based on valid data so that it requires cooperation between states.

Both the Stockholm Conference and UNCED focus on the study of how social and economic aspects affect the environment. States want to realize the success of the three sectors, because to achieve success in one sector requires action and success in other sectors. The result of the Stockholm Conference and UNCED is the concept of sustainable development that integrates and balances economic, social and environmental dimensions (8).

Sustainable development does not only focus on environmental issues, but is closely related to other fields such as fisheries, energy resources, transportation, agriculture, and health (9). Chapter 17 of Agenda 21 specifically regulates the protection of the marine and coastal environment in sustainable development efforts. The marine sector is important because the seas are interconnected so that the sea conditions in one area will affect other marine areas. Management of marine areas in the context of sustainable development includes the protection of the marine environment; sustainable use and conservation of marine living resources both in the high seas and the sea under national jurisdiction; address the impacts of climate change on the ocean; and sustainable development of small islands. The state must obtain economic and social benefits from marine management with due regard to environmental factors.

After the holding of UNCED, states continued to hold international meetings to discuss environmental issues and sustainable development. In 1997, the Special Session of the United Nations General Assembly, also known as the "Earth Summit + 5" was held specifically to discuss environmental issues, review the implementation of Agenda 21 and propose programs for further implementation. Three years later, in 2000, the Millennium Summit set the Millennium Development Goals (MDGs) that must be met in 2015. In 2002, the World Summit on Sustainable Development was held in Johannesburg which resulted in an Action Plan.

In 2005, 2008, and 2010, another meeting was held to review the MDGs. In 2012, the United Nations Conference on Sustainable Development or also known as "Rio + 20" was held again to talk about Sustainable Development. After the meeting, the United Nations Environment Assembly (UNEA) was established, to become the world's high-level decision-making body on the environment. UNEA is a forum for setting priorities for global environmental policy and developing international environmental law.

In 2013, two years before the deadline set for meeting the MDGs, a special meeting was held in New York, at which the states present at the time agreed to convene a High-level Summit in September 2015 to adopt a new set of goals. on the basis of the MDGs. In 2015, the United Nations Summit on Sustainable was held which gave birth to 17 Sustainable Development Goals (SDGs). The SDGs contain seventeen goals that must be achieved by states by 2030 in an effort to realize sustainable development. The seventeen goals cover both environmental, social and economic aspects.

3.2. Philosophical Basis for the Preparation and Adoption of Sustainable Development Goals (SDGs)

General Assembly Resolution A/70/L.1 Transforming Our World: the 2030 Agenda for Sustainable Development was adopted by UN member states on September 25th, 2015. The resolution contains 17 Sustainable Development Goals (SDGs) which contain seventeen goals that must be achieved in realizing sustainable development by 2030. These goals are determined to achieve sustainable development that balances social, economic and

environmental aspects. All goals must be achieved jointly by states because treatment in one area will affect in other fields.

Some of the goals that have been agreed upon by states in achieving sustainable development are ending poverty; ending hunger, achieving food security and improving nutrition; ensure good health for all ages; ensure inclusive and equitable quality education and promote lifelong learning opportunities for all; achieve gender equality and empower women; ensure the availability of clean water; ensure easy and affordable access to energy sources; promote sustainable economic growth and job creation; infrastructure development and promote sustainable industry; reduce injustice within and between states; make cities and settlements safe, resilient and sustainable; ensure responsible and sustainable consumption; take steps to deal with climate change and its consequences; management and utilization of the sea and marine resources in a sustainable manner in order to achieve sustainable development; promote sustainable use of forests, stop land degradation, and maintain biodiversity; provide access to justice for all people; and work together to achieve all goals.

The SDGs are a plan of action for all people, the planet, and prosperity (10). SDGs are also used as an effort to maintain universal peace and achieve greater freedom. The SDGs are a collective journey of all states in achieving sustainable development. All states and stakeholders, acting in a collaborative partnership, will implement this plan. States have promised each other that they will achieve all the contents of the SDGs without leaving each other. This is motivated by the awareness of states that in achieving sustainable development, development must be carried out jointly by all states.

States are determined to free mankind from poverty and desire to secure and heal the damage that has been done to the earth. The SDGs come as a much needed bold and transformative step to change the world on a sustainable and resilient path. The Millennium Development Goals (MDGs) that have not been achieved will be resolved by states through the achievement of the SDGs. States believed that if all the goals in the SDGs are realized, then everyone's life will be greatly improved and our world will change for the better.

Looking at the overall contents of the General Assembly Resolution A/70/L.1 Transforming Our World: the 2030 Agenda for Sustainable Development, it can be seen that the SDGs are actually steps for states to advance several elements at once, such as human, planet, prosperity, peace, and cooperation. The human element, nations are committed to ending poverty and hunger, in all their forms and dimensions, and ensuring that all human beings can fulfill their potential equally and in a healthy environment.

Planetary elements, states are determined to protect the planet from degradation, including through sustainable consumption and production, sustainably managing natural resources and taking urgent action on climate change, so as to support the needs of present and future generations. Consumption and production behavior can be said to be sustainable if it can meet current and future generations.

The element of prosperity, the state is determined to ensure that all human beings can enjoy a prosperous life. Economic, social and technological progress occurs in harmony with nature. This means that progress in economic, social, and technological aspects is carried out without compromising environmental aspects. The fourth element is element of peace. The state is determined to promote a peaceful, just and inclusive society that is free from fear and violence. There can be no sustainable development without peace and no peace without sustainable development.

The last element is cooperation element. States are determined to mobilize the necessary means to implement the SDGs through global cooperation towards sustainable development. Strengthening global solidarity is needed with a particular focus on the needs of least developed and most vulnerable state. Global cooperation involves not only all states but also the participation of all stakeholders, the private sector, and everyone.

3.3. Sustainable Development in the Marine and Fisheries Sector

The seventeen goals in the SDGs are development steps that must be carried out by all UN member states. Seventeen goals set by states are things that must be achieved by them in realizing sustainable development. Sustainable development is development that advances three aspects in a balanced way, namely social, economic and environmental aspects. The seventeen goals contained in the SDGs are development goals in many fields related to the three aspects above.

The SDGs contain development goals implemented in various sectors including the marine and fisheries sector. Goals in the SDG's which are specifically related to marine and fishery resources in a sustainable manner are Goals 14. Several other goals in the SDGs that are indirectly related to sustainable marine and fisheries management or their implementation have an impact on efforts to ensure the sustainability of resources. fisheries, including Goals 1, 2, 6, 12, and 13. These goals need to be considered and can be used as the basis for fisheries management policies by states.

Goal 14 SDG's contain a commitment to conserve and use oceans, seas and marine resources in a sustainable manner for sustainable development. Goal 14 SDG's contain the commitment of states to manage and protect marine and coastal ecosystems in a sustainable manner, protect the marine and coastal environment from pollution, and promote the conservation and sustainable use of marine resources include fishery resources. The state seeks to ensure the protection of marine ecosystems, the marine and coastal environment, and the sustainability of fishery resources.

If you look closely, these problems are closely related to one another. Sustainability of fishery resources will not be realized if the marine ecosystem is not well maintained and the marine environment is polluted. If the state wants the sustainability of marine resources including fishery resources, the state also needs to ensure that marine ecosystems and the marine environment are well maintained.

Goal 14 consists of several goals including:

1. By 2025 prevent and significantly reduce marine pollution (14.1);
2. By 2020, sustainably manage and protect marine and coastal ecosystems including their recovery measures (14.2);
3. Minimize and address the impacts of ocean acidification (14.3);
4. By 2020, regulate effectively fishing, eradication of Illegal, Unregulated, Unreported Fishing (IUUF) and destructive fishing with the aim of restoring fish stocks (14.4);
5. By 2020 conserve at least 10% of coastal areas (14.5);
6. By 2020 prohibit certain forms of subsidies that contribute to overfishing and IUUF (14.6);
7. By 2030, increase the economic benefits of sustainable use of the oceans to developing and least developed states (14.7);
8. Increase scientific knowledge in the marine sector and increase the contribution of marine biodiversity to developing and least developed states (14.a);

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9. Provide access for small fishermen to marine resources and fish markets (14.b);
 10. Promote the conservation and sustainable use of the sea and its resources in accordance with international law.

The above objectives are set by states to be achieved in order to protect marine and coastal ecosystems in a sustainable manner, protect the marine and coastal environment from pollution, and promote the conservation and sustainable use of marine resources.

Another goal in the SDGs that is indirectly related to sustainable marine and fisheries management or its implementation has an impact on efforts to ensure the sustainability of fishery resources, First, namely Goal 1. Based on Goal 1, states want to end poverty in all its forms. By 2030, states aim to reduce extreme poverty. This goal is indirectly related to sustainable development in the marine and fisheries sector. One way that the state can do in an effort to end poverty is to make fisheries management policies that open access to small fishermen for fishing activities. Of course, this policy is made by ensuring that there is no overfishing. One of the ways to improve the economy is through the fishery sector. Second, namely Goal 2 which contains the states's commitment to ending hunger, achieving food security and better nutrition. One of these goals can be achieved by advancing the states's fisheries sector. One of the main objectives in ensuring the sustainability of fishery resources is to ensure food security. Efforts to ensure the sustainability of fishery resources can be an effort to achieve Goal 2 in the SDGs.

Third, namely Goal 6 which contains state commitments to ensure the availability and sustainable management of water and sanitation for all. This goal is closely related to the goal of protecting the marine environment from pollution. Protecting the marine environment is important considering that the ocean area on earth is larger than the land area. If there is pollution in the sea, it will certainly affect the sanitation of water around the world.

Fourth, namely Goal 12 which contains the state's commitment to ensure sustainable consumption and production patterns. In this goal, states also target that by 2030, they will achieve sustainable management and efficient use of natural resources. Natural resources here also include fishery resources. The biggest way to ensure the sustainability of fishery resources is to ensure consumption and production patterns of fish and their processed products. This also includes ensuring that there is no overfishing. This can be realized through fisheries management policies that take this into account. Another thing that is no less important is supervision over the implementation of these regulations.

Fifth, Goal 13, which contains states's commitments to take immediate action to combat climate change and its impacts. Climate change also has an impact on fishery resources so this impact needs to be anticipated by all states. Climate change causes an increase in air temperature which of course results in an increase in water temperature. The increase in water temperature will affect the resilience of fishery resources in the sea (11). Another impact is the migration of target fish species (economic value) due to climate change. It is estimated that some locations in areas that have a temperate (sub-tropical) climate will become permanent habitats for fish that usually live in tropical areas. The result of this is a decrease in the stock of fishery resources in the marine areas of tropical states (11).

Goals 1, 2, 6, 12, 13, and 14 of the SDGs show that sustainable development is also implemented in the marine and fisheries sector. Sustainability in the marine and fisheries sector will affect sustainability in other sectors so that the marine and fisheries sector cannot be ruled out. What has been determined in the SDGs needs to be used as a reference in determining the direction of sustainable fisheries management policies. This is done so that

the policies made are in line with the SDGs and these policies can truly realize sustainable fisheries management.

3.4 States's Sustainable Fisheries Management Policy Based on SDGs

In 2015, all UN member states adopted The 2030 Agenda for Sustainable Development or better known as the Sustainable Development Goals (SDGs). The plans and goals contained in the SDGs must be achieved no later than 2030. In achieving these goals, of course, domestic policies and regulations must be in line with the SDGs and support what has been planned in the SDGs. Talking about sustainable fisheries management policies, of course, it must be made by taking into account the SDGs so that they are in line with and agree with the SDGs. Policy makers are currently facing the challenge of simultaneously implementing the SDGs in a coherent and integrated way (12).

A states's sustainable fisheries management policy should be made by taking into account the SDGs related to fisheries management. This is done in addition to realizing sustainable fisheries management as well as to realize the goals contained in the SDGs. Taking into account the Goal 14 SDGs, the direction of a states's fisheries management policy is made with the aim of reducing marine pollution; better and sustainable management of marine and coastal ecosystems; reduce the impact of ocean acidification; reduce and effectively eradicate IUU fishing and destructive fishing; and removing government subsidies that directly or indirectly contribute to overfishing and IUU fishing.

The states's fisheries management policies need to be designed in such a way as to increase the economic benefits of using the sea. This can be realized by opening wide and fair access for small fishermen to catch fish and accessing the market for fish catches. Research on the sea and the resources in it also needs to be increased by states. A states's fisheries management policy must also require the conservation and sustainable use of the sea and its resources.

Fishery management policies made by taking into account the Goal 14 SDGs will be able to contribute to the fulfillment of the 17 Goals SDGs even though there are goals that do not specifically mention fisheries. Sustainable fisheries management policies, if successfully implemented according to their objectives, will be able to contribute to poverty eradication efforts; ending hunger, achieving food security and better nutrition; create sustainable consumption and production patterns; ensure the availability and sustainable management of water and sanitation; and minimize the impact of climate change.

Conclusions

The SDGs are a plan of action for all people, the planet, and prosperity. The SDGs are also used as an effort to maintain universal peace and achieve greater freedom. The SDGs are a collective journey of all states in achieving sustainable development. The state is aware that towards sustainable development, development must be carried out by all states together, therefore the SDGs are drawn up. Looking at the content of the SDGs, states seek to advance several elements at once in achieving sustainable development. The elements in question are people, planet, prosperity, peace, and cooperation.

Goal 14 SDGs are goals specifically agreed by states to conserve and use oceans, seas and marine resources in a sustainable manner for sustainable development. There are other goals that are not specifically related to marine and fisheries management but their implementation has an impact on efforts to ensure the sustainability of fishery resources,

namely Goals 1,2,6,12 and 13. State policies on sustainable fisheries management should look at the goals in the SDGs that have been adopted, especially Goals 1,2,6,12,13, and 14. Such policies are in line with international law and will be able to contribute to the fulfillment of the 17 Goals of the SDGs.

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Conflicts of Interest

The authors declare no conflict of interest

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