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GOVERNMENT POLICY IN DEVELOPING THE ENVIRONMENT SUSTAINABLE IN INDONESIA

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Environmental development in Indonesia is based on the principle of sustainable development, where the environment is maintained for the benefit of present and future generations. The Indonesian economy growth for the welfare of citizens affects the environment, while economic development inevitably affects changes in natural and environmental conditions. Changes in natural and environmental conditions must be regulated through laws and legal acts, so that they can be utilized for the welfare of citizens without damaging the ecology. This study uses normative legal research, namely analyzing Law No 32 of 2009 on "Environmental Protection and Management". Legal guarantees from the government are particularly important to prevent ecological damage due to the excessive exploitation of Indonesia's natural resources, which negatively affects the environment. Therefore, the efforts made by the government to reduce ecological risks with sustainable environmental development policies are the best solution to this problem.

Keywords: Indonesia, government policy, environment sustainable, environmental development, legal guarantees.

ГОСУДАРСТВЕННАЯ ПОЛИТИКА В ОБЛАСТИ УСТОЙЧИВОГО ЭКОЛОГИЧЕСКОГО РАЗВИТИЯ В ИНДОНЕЗИИ

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Экологическое развитие в Индонезии основано на принципе устойчивого развития, при котором окружающая среда сохраняется на благо нынешнего и будущих поколений. Рост экономики Индонезии в интересах благосостояния граждан влияет на окружающую среду, при этом экономическое развитие неизбежно влияет на изменения природных и экологических условий. Изменения экологических условий окружающей среды должны регулироваться

с помощью законов и нормативных актов, для того, чтобы их можно было использовать на благо граждан, не нанося ущерба экологии. Данная статья представляет собой нормативно-правовое исследование, а именно анализ Закона № 32 от 2009 года «Об охране и рациональном использовании окружающей среды». Правовые гарантии со стороны правительства особенно важны для предотвращения нанесения экологического ущерба в результате чрезмерного использования природных ресурсов Индонезии, что негативно сказывается на окружающей среде. Поэтому усилия правительства по снижению экологических рисков с помощью политики устойчивого экологического развития являются наилучшим решением данной проблемы.

Ключевые слова: Индонезия, государственная политика, устойчивое развитие окружающей среды, экологическое развитие, правовые гарантии.

Introduction

Development is very important for life of the nation and state, especially the welfare of citizens. Development is a process of processing natural resources and utilizing human resources by utilizing technology. A very mature and integrated planning is required by taking into account all points of view and perceptions that influence each other in carrying out the development. In depth research and assessment of all interrelated aspects before implementing policies for development needs to be carried out first, thus policy makers need to be careful in implementing the results of their policies. Development must pay attention to everything starting from the potential possessed by a country, customs and habits of life of the community around development activities, natural resources, human resources or matters related to the beliefs of the people of a country.

In addition, development also needs to pay attention to the existing environmental conditions, from the physical side (soil, water, air), biotic (flora, fauna) and culture (culture, interaction between humans). The condition of environmental quality will tend to continue to decline if it is not balanced with the concept of sustainable development planning in an effort to preserve existing

environmental functions. An example is the flood disaster that often occurs in big cities at this time, is the impact of development that lacks planning and does not pay attention to the concept of sustainable development. The concept of sustainable development is expected to facilitate environmental problems that occur. Sustainable development is a development paradigm that is directly related to the balance of nature or the environment. A.S. Keraf said that the sustainable development paradigm was accepted as a political development agenda for all countries in the world [5, p. 18]. Meanwhile, according to T. Panayotou, the relationship between economy and ecology is an important issue in the discussion of sustainable development itself [3, p. 25].

There is no country that does not carry out of its development. In fact, development is a process of change towards something better. Conditions that are better than the original state are the goals of the implementation of development. The development carried out should also pay attention to the important things that support each process. The problem that arises is when in the implementation of development, there are aspects that feel disadvantaged. Here, the question arises whether development really brings change for the better or development can also provide risks that can be detrimental. In this regard, the author observes an important aspect that is also influenced by the sustainability of development, namely the environmental aspect.

It is fully realized that development activities, especially those that are physical in nature and related to the use of natural resources, clearly carry the risk of ecosystem changes. Furthermore, these changes will result in impacts, both negative and positive. Therefore, the development activities carried out should not only have a social and economic perspective but also have an environmental perspective.

Environmentally sound development is a conscious and planned effort to use and manage resources wisely in planned and sustainable development to improve the quality of human life. The implementation of environmentally sound development and the controlled use of natural resources wisely are the main objectives of

environmental management. Sustainable development is closely related to environmental management programs and policies.

Development is essentially an effort to improve the standard of living of the people. Thus, activities in any form, if in essence these activities provide opportunities for the community to improve their lives, can be called development activities. An example is the factory construction activities carried out by the private sector. This development will provide opportunities for the community to improve their standard of living by filling the workforce in the factory concerned.

Development is an attitude, action and program that is shared by everyone, development is carried out everywhere. Development has succeeded in increasing human welfare. But on the other hand, due to uncontrolled development, human life is being threatened, there is a lot of acid rain, the oceans are getting dirtier, the air is getting polluted, the soil is getting thinner and many types of animals and plants are getting extinct. In summary, the balance of development is not encouraging. On the one hand, there has been progress, on the other one, environmental damage has been found which seriously disrupts human life and the continuity of development itself.

Environmental problems are treated as sectoral problems that seem to have their own world. As a sector, it is often contradicted with development, so that people seem to be faced with a choice between “environment” and “development”. In fact, the environment is a problem that is interrelated with development. The nature of interdependence that exists in the environment cannot make the environment a separate sector, so it is deemed necessary to find a scope of problems that link the environment and development. There is a cross-sectoral approach and dissolves environmental views in development.

Sustainable development needs attention so that an area can be developed without disturbing the existing environmental ecosystem. Local people are not marginalized in their interests to meet the needs of a better life. For some people, sustainable development is closely related to economic growth and how to find ways to advance the economy in the long term, without depleting natural capital. But for

others, the concept of “economic growth” itself is problematic, because the earth’s own resources are limited.

According to A. Suhono, sustainable development can be measured based on 3 criteria, namely: a) no wasteful use of natural resources or; b) no pollution and other environmental impacts; and c) activities must be able to increase useable resources or replaceable resources. Sustainable development with an environmental perspective requires solid integration and coordination between the use of natural resources, human resources, and artificial resources within a time, spatial dimension, and coordinated to be effective, effective and efficient [q.v.: 17].

In Indonesia the definition of the concept of sustainable development has developed. The official definition of the concept of sustainable development is contained in Law No 32 of 2009 on “Environmental Protection and Management”. This law is a renewal of Law No 23/1997 on “Environmental Management”. In Law No 32 of 2009 Article 1 paragraph 3 of sustainable development is defined as follows.

Sustainable development is a conscious and planned effort that integrates environmental, social and economic aspects into a development strategy to ensure the integrity of the environment as well as the safety, capabilities, welfare and quality of life of present and future generations.

In the previous Law No 23 of 1997 the definition of sustainable development was somewhat different namely. Sustainable development with an environmental perspective is a conscious and planned effort that integrates the environment, including resources, into the development process to ensure the ability, welfare, and quality of life of present and future generations.

If you look closely, these definitions contain the terms: *environment* and *resources*. This term is very important to understand and will be described in the following.

The living environment is the unity of space with all objects, forces, conditions and living things, including humans and their behaviour, which affect nature itself, the continuity of life and the welfare of humans and other living creatures. Based on

this definition it can be seen that there is a reciprocal relationship with one another that resembles a system according to its ecological function, so that the term *ecosystem* appears which is an order of environmental elements which is an integral whole and influences each other in forming balance, stability and environmental productivity.

A *resource* is any element or component of the environment that can be used to carry out activities that result in production activities. Resources can be grouped as natural resources and human resources. Natural resources are elements of the environment consisting of biological and non-biological resources, which as a whole form a unified ecosystem.

To find out more related to environmental problems and efforts to prevent and overcome environmental damage towards a sustainable environment that can be passed on to future generations, the authors are interested in conducting research on the environment.

Methodology

The research method used in the writing of this article is a normative legal research method that focuses its research on norms and rules governing the environment, especially sustainable environmental development, where the environment is continuously well maintained so that it can be passed on to future generations. The provisions of norms governing the environment are regulated in Law No.32 than 2009 on “Environmental Protection and Management”. To further deepening the understanding and explanation of this law the authors also take the opinions of environmental experts through books, journals, articles and other scientific works through both electronic and print media.

In addition to being approached through the norms and rules that have been regulated in Law No 32 of 2009, also carried out a sociological approach. Namely an approach that is carried out by looking at the social conditions of the community related to environmental protection and management, because in environmental protection and management the community is directly involved in maintaining and protecting regional areas that are objects of environmental protection and

management life. Descriptive analysis is used in the discussion of this article, which according to S. Arkunto [2, p. 18] descriptive analysis is to investigate the circumstances, conditions or other things that have been mentioned, the results of which are presented in the form of a research report. In this paper the authors do not change, add or manipulate the object or research area. In this work activity the researchers only take pictures of what happens to the object or area under study, then describes what happened in the form of a research report in a straightforward manner, as it is.

Likewise, stated by L. Moleong [6, p. 24] states that the implementation of the descriptive method is not limited to collecting and compiling data, but includes analysis and interpretation of the meaning of the data, besides that everything that is collected is likely to be the key to what is being researched. While the design used in this paper is a library studies design, where the author conducts a search on the literature and then conducts a study.

Results and discussion

Environmental problems and socio-economic conditions of Indonesian society

Problems regarding the environment in Indonesia are very complex compared to environmental problems in other countries. Indonesia vast territory and consisting of thousands of islands, both large and small, makes it difficult for the government to control environmental destruction. In addition, the large population with minimal human resources makes nature the foundation of life and will indirectly affect environmental changes.

Humans as environmental rulers on the Earth play a major role in determining environmental sustainability. Humans as intelligent creatures of God are able to change the face of the world from a simple pattern of life to the modern form of life as it is today. But, unfortunately, often what humans do is not balanced with thoughts about the future of the next generation of life. Many advances that made by humans have had a negative impact on the survival of the environment.

The implementation of development affects and is influenced by the environment. Like a system, they cannot be separated from each other. In general,

development aims to improve the quality of life of the people and better meet the basic needs of the people. In an effort to improve the quality of human life, as is the goal of development, the ability of the environment to support life at a higher level should be protected from damage. Environmental care is sought in order to avoid the extinction of life. In other words, if there is damage, a severe decline in the ecosystem in which human live, then in the future human life will experience more difficulties.

According to Sugeng Martopo, environmental problems arise because of population dynamics, unwise use of resource management, uncontrolled use of advanced science and technology, negative impacts that often arise from economic progress that should be positive and spatial conflicts [15, p. 1]. The pattern of human life has indeed experienced a massive revolution when faced with the reality of the increasing number of human populations, and also the development of technology that can be used to support life. Some of these lifestyles are not in harmony with the natural environment, resulting in an environmental crisis. Changes in the pattern of life include increasing use of motorized vehicles that require fuel oil, increasing use of electrical energy due to tools that need to be activated with such power; changing diet from traditional processing techniques to using modern tools that are more timesaving; and the use of tractors and machinery in agriculture. The pattern changes given are just a few examples. The *environmental crisis* is also influenced by these changes in patterns and lifestyles.

Environmental problems are natural problems, namely events that occur as part of natural processes. This natural process occurs without causing significant consequences for the environmental system itself and can then recover naturally (homeostasis). However, now environmental problems can no longer be said to be purely natural problems, because humans provide a very significant variable factor for environmental events. It cannot be denied that environmental problems are born and develop due to human factors much larger and more complicated (complicated) than the natural factor itself. Humans with their various dimensions, especially with the mobility factor of their growth, reasoning with all the developments of their

cultural aspects, as well as the factors of the process of time or age that change human character and views, are factors that are more accurately linked to environmental problems.

So environmental management problems can be considered as one of the main causes of natural disasters in Indonesia. The estuary of all environmental problems is development that is carried out without paying attention to environmental balance factors, which in turn will cause environmental damage and pollution. *Pollution* is a condition in which a substance or energy is introduced into an environment by human activities or by natural processes themselves in such a concentration as to cause a change in the said condition which results in the environment not functioning as before in terms of health, welfare and biosafety [4, p. 36]. The issue of the environment is essentially finding ways to ensure and make the earth and the natural surroundings a liveable space for a peaceful and prosperous life. Therefore, actions that pollute the environment are tantamount to killing life itself [16, p. 18].

For this reason, the role of the community plays an important role in the protection and management of the environment, because after all the environment is closely related to the activities of citizens, the lifestyle of citizens and also the mindset of the community towards environmental sustainability. Moreover, Indonesia is categorized as a developing country with the fourth largest population in the world. Of course, it requires various kinds of living facilities including housing, roads, places of business, factories, new rice fields, plantations, etc. And all of this requires land that automatically changes the function of the land and ultimately affects the sustainability of the environment as a whole.

Likewise, the negative impacts caused by development activities carried out by the government, private companies and activities of citizens who do not pay attention to the environment will decrease the quality of the environment (physical, biological, chemical and socio-cultural, both on a local, national and global scale), and will threaten human survival. Examples of current development activities that have an impact on the balance of the ecosystem include:

- a) The destruction of various vital life support systems for humans, both bio-physical and socio-cultural.
- b) Ecosystem instability due to degradation from environmental pollution.
- c) Various gaps in development institutions in the field of natural resource management and the environment.
- d) Decreased environmental carrying capacity.
- e) There is a decrease in natural resources and the environment.
- f) Problems with the use and management of natural resources (forest, land, water resources, biodiversity, coastal and marine resources).
- g) The occurrence of natural disasters.
- h) Environmental pollution.

Sustainable environmental management policy

Based on the preamble to the 1945 Constitution of the Republic of Indonesia it is explicitly stated that one of the objectives of state and government establishment is to promote the general welfare. To achieve this general welfare the Constitution gives the state the exclusive right to control the environment and natural resources, which in legal literature is known as *the right to control the state*. The integration of the environment and natural resources, the right to control the state and the welfare of the people as stated in Article 33 paragraph 3 of the Constitution, which states that “Earth, water and natural resources contained therein are controlled by the state and used as much as possible for the welfare of the people”. Muhammad Hatta translated the right to control the state as the right of the state to make rules to facilitate economic life [q.v.: 1].

Environmental control and management is closely related to the welfare of the citizens. It is through controlling and managing the environment (where natural resources are in it) that people’s welfare is to be realized. For a country that claims to be a welfare state, making people’s welfare is the goal of the state, all activities of state administration are oriented towards efforts to achieve and fulfil the welfare of the people.

For more than a decade, problems related to pollution of the human environment have received very serious attention from the international community. Problems such as population explosion, increasing number of poor people, rapid urbanization, abandoned rural lands and industrial development that does not heed the resilience of natural resources, have concerned many people such as politicians, intellectuals, community leaders and development critics. On various occasions at international meetings this well-founded concern was put into political declarations [5, p. 190], which can be seen as a critique of developmental styles that ignore the demands of ecological balance [8, p. 131]. Even in its development to this day, the paradigm of sustainable development declared by politicians, intellectuals and environmentalists in the world is not implemented according to what has been mutually agreed upon. It can be said to have failed, it can be seen from the environmental damage (the impact of greenhouse gases, the warming of the Earth, and climate change) that occur throughout the world, including in Indonesia.

S.S. Rangkuti says that the right to a good and healthy environment is seen from the point of view of its form and content, the formulation of this right is a classic human right, which requires the authorities to avoid interfering with individual freedoms to enjoy their environment [10, p. 171]. In terms of its operation, this right contains demands that are social rights, because at the same time it is balanced with the obligation for the government to outline policies and take actions that encourage increased efforts to preserve the environment

Government by law (rule of law) expects from the public and government officials a strong loyalty to the law [7, p. 77] State efforts to prevent the use of natural resources that cause environmental pollution and/or damage will be carried out if there is public and government loyalty to the law, so that the rule of law is effective.

The population or society is the most important part or central point in sustainable development, because the true role of the population is as the subject and object of sustainable development. A large population with rapid growth, but with low quality, will slow down the achievement of ideal conditions between the quantity

and quality of the population with the carrying capacity of nature and the increasingly limited environmental capacity.

To realize sustainable development in a country, a quality population component is needed. Because of the quality of the population, it is possible to be able to process and manage the potential of natural resources properly, precisely, efficiently, and maximally, while maintaining environmental sustainability. So that it is hoped that there will be balance and harmony between the population and the capacity of the natural carrying capacity and environmental capacity. Thus, government policies in sustainable environmental management cannot be separated from the role of all parties, especially economic actors, whose business activities are directly in contact with the environment.

Regulation of environmental issues in Indonesia

The milestone in the comprehensive regulation of Environmental Law in Indonesia or called environmental oriented law is the issuance of Law No 4 of 1982 concerning “Basic Provisions for Environmental Management” (LN 1982 No 12, TLN No 3215), which is abbreviated as “Law Environment” which was later replaced by Law No 23 of 1997 concerning “Environmental Management” (LN 1997 No 12, TLN No 3215) and is now replaced again by Law No 32 of 2009 concerning “Environmental Protection and Management” (LN 2009 No 140, TLN No 5059). The basic difference between Law No 23 of 1997 and Law No 32 of 2009 is the strengthening contained in last Law concerning the principles of environmental protection and management based on good governance. Because in every process of formulating and implementing instruments for preventing pollution and/or environmental damage as well as tackling and enforcing the law requires the integration of aspects of transparency, participation, accountability and justice.

The environmental management policy has been stated in the Law No 32 of 2009, which instructs that the development carried out must pay attention to the environment or is called sustainable development as stated in Article 1 point 3. It states that sustainable development is a conscious and planned effort, which combines environmental, social and environmental aspects into a development

strategy to ensure the integrity of the environment as well as the safety, capabilities, welfare and quality of life of present and future generations. Indonesia as a developing country, which is currently carrying out development in all fields, must also be oriented towards environmental development. The definition of development here is a conscious effort of the Indonesian people to improve their standard of living by utilizing all the resources they have. In this Law outlines the concept of environmental protection and management as an integrated systematic effort to preserve environmental functions, which includes the following policies:

1. Planning;
2. Utilization;
3. Control;
4. Maintenance;
5. Supervision;
6. Law enforcement.

Compared to the 1982 “Environmental Law” and 1997 “Environmental Law”, 2009 Law on “Environmental Protection and Management” contains more chapters and articles. It consists of XVII chapters and 127 articles. The chapters are named as follows: chapter 1 on general provisions; chapter II on Principles, objectives and scope; chapter III on planning; chapter IV on utilization; chapter V on control; chapter VI on maintenance; chapter VII on hazardous material management and toxic; chapter VIII on information systems; chapter IX on duties and authorities of government and local governments; chapter X on rights, obligations and prohibitions; chapter XI on community roles; chapter XII on administrative supervision and sanctions; chapter XIII on environmental dispute resolution; chapter XIV concerning investigation and evidence; chapter XV concerning criminal provisions; chapter XVI concerning transitional provisions; and finally chapter XVII concerning closing provisions. This Law requires implementing regulations in the form of government regulations in the following fields:

1. Environmental inventory (Article 11);
2. Application of eco regions (Article 11);

3. Environmental protection and management plan (Article 11);
4. Determination of carrying capacity and capacity (Article 12 paragraph (4));
5. Strategic environmental assessment (Article 18 paragraph (2));
6. Environmental quality standards (Article 20 paragraph (4));
7. Standard criteria for damage (Article 21 paragraph (5));
8. Environmental impact analysis (Article 33);
9. Environmental permit (Article 41);
10. Environmental economic instruments (Article 43 paragraph (4));
11. Environmental risk analysis (Article 47 paragraph (3));
12. Procedures for dealing with pollution and/or environmental damage (Article 53 paragraph (3));
13. Control of pollution and/or environmental damage (Article 56);
14. Procedures for the restoration of environmental functions (Article 54 paragraph (3));
15. Guarantee fund (Article 55 paragraph (4));
16. Conservation and reserve of natural resources as well as preservation of the function of the atmosphere (Article 57 paragraph (5));
17. Management of hazardous and toxic materials (Article 58 paragraph (2));
18. Hazardous and toxic waste management (Article 59 paragraph (7));
19. Procedures and requirements for dumping (Article 61 paragraph (3));
20. Supervision procedures (Article 75);
21. Administrative sanctions (Article 83);
22. Settlement of environmental disputes (Article 86 paragraph (3)).

The government efforts in overcoming environmental damage in Indonesia

Earth is a priceless gift from God Almighty because it is the source of all life. Our ancestors left the Earth to us in a very qualified and balanced state. They protect and preserve nature to be given to us as heirs of the Earth, so that we deserve the exact same qualities that our ancestors felt. Therefore, we as heirs of this Earth are obliged to maintain and maintain nature so that it remains in balance without any conditions. The ancient people have realized that the environment is a part of their

life. In the past, trees were allowed to be cut down for community needs, but before they were cut down, they had to plant trees of the same type next to the trees to be cut down so that they would continue to pass on the same natural environment to their children and grandchildren.

According to S.P. Hadi, there are four principles to realize sustainable development, which include fulfilment of basic needs (fulfilment of human needs), environmental maintenance (maintenance of ecological integrity), social justice (social equity) in the form of justice for future generations and the opportunity for self-determination, which includes elements of participatory democracy [q.v.: 13, p. 107].

The increasing population and rapid technological developments have changed the pattern of human life. If previously human needs were limited to primary and secondary needs, now human needs have increased to consumptive and unlimited tertiary needs. These needs are not only met but are always changing according to the times. Environmental damage will always be accompanied by the contamination of an environment.

Environmental damage itself is a form of action taken by humans that causes physical changes, loss of characteristics either directly or indirectly on the properties possessed, so that the quality standard criteria for environmental damage are exceeded [14, p. 23].

Humans today have started to not care about nature, there has been a lot of evidence of environmental damage that is happening on this earth. Apart from natural factors, the damage is mainly due to the actions of humans themselves who do not care about the problems that will occur from the little things they do and have a bad impact on the balance of nature. Moreover, from year to year, humans are increasingly indifferent to the environment around them, they do not think about the impact that will occur in the future. Unwise use of natural resources can reduce their quality and cause pollution and damage, thus causing disruption of the balance of nature and living things [12, p. 16].

The environmental damage caused by a polluted environment comes from several sources and enters the air, water and soil in various ways. Air pollutants mainly come from motor vehicles, industry and burning waste. In addition, many factories are being built at this time, even those factories are built not in place, such as on the banks of a river. And finally the waste produced by the factory will intentionally flow into the river, causing the river water which was originally clean and used for the daily needs of the residents to become polluted and the river water cannot be used for daily needs. The factory also causes air pollution, which comes from the steam released by the factory. Solid materials that are disposed of by factories into rivers and cannot be decomposed can also hinder the smooth flow of rivers, while materials that can be decomposed will cause rivers to contain hazardous chemicals. For business actors from economically weak groups whose businesses are estimated to have damaged the material/physical environment, these business actors are given an understanding of the problem of environmental destruction and pollution, so that the environment is protected from pollution and damage [9, p. 35].

Environmental damage that occurs is mainly caused by humans. Now there is a lot of illegal logging of forests. In fact, forests are very useful for human survival. If there are fewer trees in the forest, it can cause natural disasters such as landslides, floods, disruption of natural ecosystems, and so on. Humans also do not care about small things, such as littering, because that can also damage the environment.

From this problem the concept of *sustainable development* was born. This concept is believed to answer various problems and challenges of environmental development. At the same time how to continue development as a means used by mankind to achieve better welfare [11, p. 95].

Below, we will describe ways to overcome environmental impacts that have been carried out by the government and those that are still in planning. The ways to deal with environmental damage are as follows:

1. Applying the *4R Principles* that is the principle used in dealing with environmental damage regarding the overflow of floodwater, namely by taking action: *reduce, reuse, recycle* and *replant*. Reduce action is to reduce the use of

useless or useless items, reuse action is to use items that can still be used or can still be used, recycle action is to recycle goods or waste into useful items and replant action is to hoard organic waste to be used as compost or fertilizer.

2. *Reforestation*. The existence of forests in the world is the lungs of the world. If any forest is destroyed then several other countries will also get the effect. Of course, the first to suffer the consequences is the state that has damaged its own environment. For that, never destroy the existing forest. If you want to cut down a tree, then you must have a selective cutting attitude and plant seeds for new trees.

3. *Bioremediation*. The waste that exists in the community does not only occur in industry but there is also waste that comes from households but the one that has a greater effect is waste from industry. For that, an industry must know what bioremediation is. Especially for industries that emit a lot of hazardous waste in the form of toxic substances. The impact is not only looking for the environment, but can disrupt the health of people in the surrounding area. Bioremediation is the use of microbes or plants from contamination. So, the waste to be disposed of must be cleaned first for contamination. Therefore, with this bioremediation, the waste to be disposed of does not have a bad impact on the environment.

4. *Land rehabilitation*. The existence of this rehabilitation is also an effort to restore the land ecologically. This rehabilitation is also an effort to restore the physical environment so, that it can be used again. The responsibility for making this rehabilitation is the entrepreneur who has been mining the land. If this is not done, the land will become barren and die.

5. *Beach reclamation* is a coastal restoration activity to save critical and dead land to become more productive. The existence of critical land due to sand mining activities carried out by humans. Now, with beach reclamation, it becomes a way to overcome environmental damage caused by human activities.

6. *Producing natural oil*. There is a process called *the mode depolymerisation*, a process similar to how nature produces oil. For example, if carbon-based waste is heated and given the right pressure, it can produce oil. Naturally, this process takes

millions of years. From past experiments, turkey manure is capable of producing about 600 pounds of petroleum.

7. *Distillation of seawater into freshwater*. The United Nations noted the supply of clean water would be very limited for billions of people by the middle of this century. There is a technology called *desalination*, which removes salt and mineral levels from seawater so that it is drinkable. This is a solution, that can be done to prevent the water crisis. The problem is that, this technology is still too expensive and requires quite a lot of energy.

8. *Hydrogen fuel* is considered as a pollution-free alternative fuel. Energy is produced from a combination of hydrogen and oxygen. The problem is how the hydrogen is made. Molecules such as water and alcohol must be processed first to extract the hydrogen so that it becomes a fuel cell. This process also requires a lot of energy. But at least scientists have tried to make laptops and other devices with fuel cell power.

9. *Solar power*. Solar energy that reaches the earth is formed from photons, which can be converted into electricity or heat. Several companies have successfully used this application. They use solar cells and solar thermal as a medium for collecting energy.

10. *Ocean heat conversion*. The largest medium for collecting solar energy on earth is sea water. The United States Department of Energy says the ocean is capable of absorbing solar heat equivalent to the energy produced by 250 billion barrels of oil/day. There is a technology called OTEC that is able to convert ocean thermal energy into electricity. The difference in temperature between the sea surfaces is able to run turbines and drive generators. The problem is that this technology is still less efficient.

11. *Ocean wave energy*. The sea covers 70% of the Earth's surface. The waves store a large amount of energy that can drive turbines to produce electricity. The problem is rather difficult to predict when the ocean waves are big enough to produce enough energy, the solution is to store some of the energy when the waves are big enough. New York City's East River is currently a pilot project with six turbines

powered by water waves. Meanwhile, the Portuguese have already practiced this technology and have successfully illuminated more than 1500 houses.

12. *Planting plants on the roof of the house* are able to absorb heat and reduce carbon dioxide. And this is important in reducing global warming that hit the world today.

13. *Electronic book*. How many tons of paper and how many trees must be cut down for the entire world if we all have to buy newspapers, magazines, novels, textbooks, notebooks, writing paper, toilet paper. Electronic books or electronic mail better known as e-books and e-mails make a very significant contribution to survival. With this technology, paper production can be suppressed, so we do not have to cut down too many trees.

Conclusion

In the Indonesian Constitution, which is contained in the Preamble the state has an obligation to improve the welfare of its people. For this purpose, the Indonesian government carries out development in all fields so, that public welfare can be realized in accordance with the mandate of the Constitution. In carrying out development, it is certain that a large area of land is needed and it is transferred to function in accordance with the field of the development master plan. In such conditions, there must be sacrifices, namely environmental damage due to development and also the increase in Indonesia's population. To overcome the problem of environmental damage, the Indonesian government issued the concept of *sustainable development*, meaning that the implementation of development does not sacrifice environmental destruction so that the environment can be healthy and sustainable and can be passed on to future generations. In addition, the Indonesian government seeks to overcome environmental damage in various ways such as reforestation, beach reclamation, land rehabilitation, etc. Efforts made by the Indonesian government in overcoming environmental damage are the government's responsibility for the restoration and preservation of the environment to be passed on to future generations.

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