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Analysis of zero-plastic program in East Timor based principles international Environmental law

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Abstract

Environmental issues in the form of plastic waste are already a complex problem. The unreasonable use of plastic can damage the human environment and marine habitats. Therefore, in East Timor the government of the 8th Cabinet launched a zero-plastic policy program. This program has its legitimacy in the form of Government Decree number 37/2020. This is the realization of the principles of international law on environmental protection. And we are interested in analyzing the zero-plastic program in order to understand the direction and goals of this government program. Know to consider it from a legal aspect as regulated in decree 37/2020 against the two principles above.

The type of approach used in this research is a normative juridical approach: Between the results of the conventions in Stockholm, Sweden and Rio de Janeiro, the Constitution of the Democratic Republic of East Timor and Government Decree number 37/2020. From the results of a normative search, the group concluded that the zero-plastics program was delegated in government decree no.37/2020 is a government decision in order to protect the environment based on the principles of international law regarding the protection of the natural environment and mankind. However, the problem is that the East Timor government does not have the means to support the realization of the program.

Keywords: Zero Plastik and principles international environment law

1. Introduction

1.1. Background

Nowadays, environmental problems are becoming hot issues to be discussed and discussed together (international issues). Environmental problems concern the future of human life on earth. The older the age of the earth, the more problems there are. According to Matthias Finger, the current global environmental crisis is caused by at least several things, including: wrong and failed policies; technology that is inefficient even tends to be destructive; low political commitment, ideas, and ideologies that ultimately harm the environment; deviant actions and behavior of state actors; the spread of cultural patterns such as consumerism and individualism; and individuals who are not well guided. ^[1] Among the environmental issues are the level of air pollution, water pollution and environmental pollution. There are also environmental issues in the form of plastic waste. The problem of plastic waste is very complex. Plastic waste is one of the main contributors to environmental pollution, both land and sea pollution. This problem arises due to the nature of plastic waste that is not easily decomposed, it takes hundreds of years if it decomposes naturally. Even when plastic has decomposed into microplastic, it is still dangerous for the life of creatures on this earth. ^[2]

¹Matthias Finger, "Which Governance for Sustainable Development? An Organizational and Institutional Perspective", dalam Jacob Park, Ken Conca, dan Matthias Finger, editor., *The Crisis of Global Environmental Governance: Towards a New Political Economy of Sustainability*, New York: Routledge Taylor & Francis Group, 2006, p. 125

²Sri Nurhayati Qodriyatun, (peny.), *Sampah Plastik dan Implementasi Kebijakan Pembatasan Plastik Sekali Pakai Terhadap Industri dan Masyarakat*, Pusat Penelitian Badan Keahlian DPR RI, 2019, p. v

Therefore, in East Timor the government of the 8th cabinet launched a zero plastic policy program. Why? There are two interrelated reasons, among others, on the one hand, we see that East Timor is currently a plastic importing country. These plastics have become garbage on earth which is nicknamed the land of crocodiles. In almost all corners of cities in East Timor, plastic waste is found. This garbage has polluted rivers, seas and clogged sewers in the city of Dili. When it rains, plastic waste is scattered on the streets, sewers, rivers and seaside.

On the other hand, East Timor is a sovereign country that has also ratified international conventions on the environment. Among others, the United Nations Convention on climate change, the Kyoto Protocol, the International Convention to combat desertification, the International Convention on Biological Diversity, the Vienna Convention on the Protection of the Ozone Layer and the Montreal Protocol. With this, the East Timor government acknowledges that the earth which is the main home of mankind is being threatened. The earth that is our home is sick. Sick because of his own actions. So, care is needed. Treatment must be global. Involving all countries. The method of treatment requires uniformization without ignoring the socio-political, socio-cultural circumstances of each implementing country. Therefore, in two international conferences on the environment; in Stockholm, Sweden, in 1972 and in Rio de Janeiro, Brazil, on June 3-14, 1992, several environmental law principles were issued, namely: Sustainable Development, Justice in One Generation, Intergenerational Justice, The Principle of prevention of action, the Precautionary Principle^[3] and the Polluter Pays Principle.

In connection with the East Timor government's intention to ratify the environmental law above, East Timor promoting the zero plastic policy have gained legitimacy, also issued Law 37/2020 concerning: Alineção, Importação e Produção de Sacos, Embalagens e outros Objetos de Plásticos (Disposal, import and production of packaging and other plastic goods).^[4] This law is a derivation of Article 6 of the Constitution of the Democratic Republic of Timor Leste (Letter f),^[5] one of the basic objectives of the state which reads: proteger o meio ambiente e preservar os recursos naturais (protecting the environment and preserving natural resources). And article 61 paragraphs (1 to 3)^[6] repeats in more detail the purpose of the state in protecting, developing a balanced environment, respecting natural resources and people's rights to a decent living environment. This is correlated with the contents of Article 139 paragraph (3):^[7] Aproveitamento dos recursos naturais ser feita de forma a manter e equilíbrio ecológico e evitar a destruição dos ecossistem (utilization of natural resources must continue to pay attention to environmental balance and avoid damage to ecosystems).

Seeing the zero-plastic terminology used in this paper, it is clear that the goal is to make the inhabitants of the East Timor earth free from the use of plastic. Why? Because in reality, in East Timor, especially in the city of Dili, environmental pollution (water, sea, channel systems) caused by plastic

waste is already at a serious level, so there needs to be cooperation with neighboring countries such as Indonesia as published in Indonesian online media.^[8] So, the accumulation of plastic has damaged the environment (land) and the water environment (sea and rivers) and is biased towards air pollution.

For the research team, the program on Zero-Plastics launched by the East Timor government is a realization of the two principles produced by this conference. This is a concretization of international law in national law on the environment in East Timor.

1.2. Problem Formulation and limitation

Starting from the discussion of the problems above, several questions arise that will become the focus of discussion of the research conducted by this research team:

1. How are the principles of plastic waste management regulated in government law number 37/2020?
2. How is the zero-plastics program analyzed in terms of the precautionary principle (the second principle of prevention of action)?

Based on the formulation of the problem above, we will limit the subject of this paper to analysis of zero plastic program in East Timor based principles international environmental law.

1.3. Materials and methods

This research is a normative research using a statute approach, and a theoretical approach, namely research conducted on the laws and legal principles of plastic prevention as contained in law 26/2012 concerning the environment, law no. Law, 37/2020, on the disposal, import and production of packaging and other plastic goods and the results of the Stockholm conventions in Sweden in 1972 and Rio de Janeiro in 1992.

2. Discussion

2.1. Principles of dealing with plastic waste in Government Law number 37/2020

The East Timor government's attention to plastic waste is very serious, because plastic waste is a problem that can damage natural ecosystems. So what is plastic? Furthermore, before discussing the principles of dealing with plastic waste based on government laws, we first briefly describe plastic. Plastic is a type of macromolecule that can be formed by a polymerization process." Polymerization is the process of combining several simple molecules (monomers) through a chemical process into large molecules (polymers or macromolecules). Meanwhile, according to Surono (2013), plastic is a type of polymer compound that has the main constituent elements of carbon and hydrogen.^[9] Meanwhile, regarding the plastic limit in Law number 37/2020, it is regulated in article two (2) regarding the scope that this law applies to all types of plastic materials; plastic coatings, plastic coatings and multi-material objects containing plastic. So, thus, plastic in the above sense, are all types of plastic that eventually become waste, which can be negative for the

³David Hunter, James Salzman, dan Durwood Zaelke, *International Environmental Law and Policy* (New York: Foundation Press, 1998), p. 281.

⁴Jornal da República, série I, No. 39, about Decreto Lei No. 37/2020.

⁵*Constituição República Democrática de Timor Leste*, Dili, 2002, p. 3

⁶*Ibid.* p.20

⁷*Ibid.* pp. 52-53

⁸<https://mediaindonesia.com/humaniora/277318/indonesia-timor-leste-kerja-sama-tangani-sampah-plastik>. accessed on 19/04.2022

⁹https://www.pinhome.id/blog/pengertian-plastik-dan-manfaat-plastik/#Pengertian_Plastik. accessed on 19/04.2022

human environment, both for the land and for rivers and seas. The dangers of plastic waste need proper attention, involving all parties from all walks of life, but especially the government, so that the natural ecosystem in East Timor is maintained and healthy for the community to inhabit. The East Timor government is aware of the dangers of this plastic waste. Therefore, the government stipulates government law number 37 of 2020 concerning the disposal, import and production of packaging and other plastic goods. In the law, the principles of recycling plastic waste are regulated. These principles include:

1. The principle of prevention (article 5)

All plastic materials are only used once. The public pays special attention to the chemical substances contained in plastic, avoids the dangers of waste generated from plastic factories, knows the bad impact on the environment and humans. If economic actors (factories) know that the impact of waste is bad for the environment and human generation, then the production process should be stopped.

2. The principle of fines for factory actors (article 6)

Every economic actor who develops, produces plastic must comply with the principle of responsibility, respect public safety requirements, and if it damages the environment and human life must be subject to (fine) fees.

3. The principle of reuse (article 7) Bags

Packaging and other plastic objects must be designed and manufactured in such a way that they can be reused at the same or different times and elsewhere.

4. The principle of recycling (article 8)

This recycling principle underscores several important points. First, every plastic object must be able to be processed or recycled and become a new object to use. Second, the recommended recycling process is organic recycling. Organic recycling is the processing of aerobic (tagem compound) or anaerobic (biomethanization), through microorganisms and under controlled conditions. Plastic waste hoarding is not a form of organic recycling.

2.2 Analysis of the Principles of the Zero Plastic Program with the Principle of preventive action and the Precautionary Principle

1. Approach the principle preventive of action

Pollution prevention methods consist of prevention and control measures. Preventive measures in principle reduce pollutant from the source to prevent a more severe environmental impact. In the immediate environment, for example by reducing the amount of waste generated, reusing and recycling. This is regulated in article 8 of law 37/2020. The principle of prevention departs from the recognition of environmental protection as a goal. The principle of prevention is applied in a wider context than just transboundary pollution. In this case, the application of the principle of prevention is aimed at minimizing the risk of

environmental pollution.^[10] The most concrete action is the government's decision to limit the import of plastic and similar materials. In stores, plastic substitutes are provided when people shop. Seeing and analyzing the principles contained in government law number 37/2020 above, shows that the Zero-Plastics program from the 8th cabinet government is a program with the principle preventive of action approach. That in fact, in East Timor, environmental pollution both on land and in rivers and seas caused by the disposal of plastic waste has been going on for a long time. But with this government program and decree, the government wants to prevent the consequences (risks) resulting from plastic pollution from bringing a more severe impact to the next country. For example, the principle of paying polluters and being responsible for producers (article 6). This principle underscores the responsibility of producers or economic actors to pay, or fine, for products that can cause harm to consumers or damage natural ecosystems. Likewise, the principle of recycling and the principle of reuse. In addition, the government's decision to limit the import of plastic and similar materials. In stores, plastic replacement bags are provided which are more environmentally friendly as a substitute for plastic when people shop. This bag is not only disposable, but can be reused when shopping. Unfortunately, this nation does not yet have a plastic recycling facility (factory), there are no real sanctions for plastic importers who have damaged the natural environment such as rivers, seas, and air pollution (in the case of burning plastic waste such as the Tibar case).

2. Approach the Precautionary Principle

The 1992 Rio Declaration produced at The United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, Brazil on 3-14 June 1992 has included the precautionary principle in its declaration which reads: "In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation". The precautionary principle^[11] is the embodiment of environmental management based on an anticipatory approach. The precautionary principle was first applied in environmental policy in Germany in the early 1970s, and is known as *Vorsorgeprinzip*. The purpose of *vorsorgeprinzip* is to prevent pollution by carefully estimating the potential for contamination. It is also stated that this principle is the basis for the sustainability of ecological resources for future generations through the careful use of these resources.^[12]

Broadly speaking, the precautionary principle is formulated in public policy in two ways, namely negative and positive ways. The precautionary principle formulation in a negative way is used to exclude certain justifications for "inaction", or can also be used as a license (permission) to take an action, but does not require preventive action. While the positive way is done by formulating precautionary measures.

¹⁰Arie Trouwborst, *Evolution and Status of the Precautionary Principle in International Law* (The Hague: Kluwer Law International, 2002), pp. 35-36.

¹¹Etymologically, the term "precaution" comes from the Latin "prae" which means "before", and "cautio" which means "security" or "security". The term "caution" in Black's Law Dictionary is defined as: (1) "security given

to ensure performance of some obligation"; and (2) "the person who gives the security. In Bryan, A. Garner (Eds.), *Black's Law Dictionary*, Seventh Edition, St. Paul, Minn: West Group, 1999, p. 214

¹²Joel Tickner and Carolyn Reffensperger, "The precautionary principle in Action: A Handbook", first edition, <http://www.biotech_info.net/handbook.pdf>, p. 3-4.

According to **Daniel Bodansky**, there are three functions of the precautionary principle formulation in public policy, namely:^[13]

1. Precautionary principle as a basis for not delaying environmental action caused by uncertainty of scientific evidence

Initially, international agreements tend to carry out an environmental action (can be in the form of conservation, management measures, etc.) based on scientific evidence. Based on the function of this formulation, all precautionary measures must be based on scientific evidence. So where does this prudence lie? If a decision to protect the environment awaits the results of scientific tests, which sometimes take time, then at the same time, the government allows the danger to threaten the environment and humans themselves. So, there needs to be an attitude of rejecting the concept that environmental action must wait for scientific evidence. Why? Because, it seems that this is not suitable with the state of the technology-laboratory in East Timor. Government laws as regulated in articles 5-8 have represented how the government applies the precautionary principle to the dangers of plastic waste, without waiting for the results of scientific research so far. In fact, this law was issued before there was a domestic "internal" scientific research in East Timor itself on the dangers of plastic to society. The Zero-Plastic Program in East Timor, was launched by the government on the basis of an awareness of the environment without being based on the results of domestic scientific research. Perhaps based on observations of the accumulation of plastic waste that has damaged the soil, clogged rivers and polluted the sea. It is certain that this awareness of the environment is built on the results of cooperation in the field of scientific research on the dangers of plastic waste with other countries.

However, we tend to say that the zero plastic program launched by the East Timor government is based more on the awareness that comes from the government itself on the impact of plastic waste on the environment as stated in the initial paragraph of law number 37/2020, that considering the pattern of plastic consumption and the like at this time with high levels of pollution and inefficient use of natural resources become a threat to the environment, both land and water.

2. Precautionary principle as a license to act

The precautionary principle in the context of trading has a function as a license to act. As a result, this principle provides a justification or justification for carrying out environmental actions disguised as trade barriers. But actually, this function is used as a justification for imposing restrictions on the import of plastics and the like to protect the environment, the health of human, animal and plant life. In this context, this law is issued as a legal "license", has strong legitimacy, and has integrity. Moreover, it actually gives legal freedom for the East Timor governments to take precautionary measures without dealing with the uncertainty of scientific results. Although there has been no scientific research in East Timor that shows that plastic waste is harmful to the environment.

But, basically, every plastic waste contains chemicals that are harmful to the environment and human life. In this perspective, the zero plastic program regulated in Law 37/2020 is a license in the Precautionary principle thinking while waiting for the results of scientific research. In other words, the Precautionary principle as the third license is faced with the uncertainty of scientific research results.

3. Precautionary principle as the basis for the obligation to act

Another function of the precautionary principle is to create an obligation to act which states that when the hazard threshold has been exceeded, the state is obliged to use "the best available technology" to reduce polluting emissions. The state is obliged to provide environmentally friendly production methods (clean production methods) which are charged to the production parties to prevent harmful substances from contaminating nature,^[14] and bring consequences for the survival of the population itself. Therefore, when dealing with this plastic waste problem, the government does not yet have sophisticated technology to reduce polluting emissions but has issued a policy in the form of a law as a "production method" which in its implementation is environmentally friendly. This production method is stated in the four principles as stated above, the principle of prevention, the principle of fines for the perpetrators of the factory, the principle of reuse, and the principle of recycling as the main model in realizing the zero-plastic program for East Timor. In addition, the East Timor government needs to work with countries that have the best available technology to establish a plastic recycling factory in East Timor so that plastic waste can be recycled, so that plastic waste does not become a problem for the current environment. and for generations to come. The government also needs to work with developed countries in the field of laboratory research and can set up laboratories in East Timor to protect the environment and human health from the dangers of uncertainty about the results of scientific research. Because with the certainty of scientific research, the government can easily act in tackling various issues regarding the dangers of chemical substances contained in plastic molecules.

3. Conclusion

The environment in our time, has received serious attention. The seriousness of this environment is not only from one or two people, nor is it a group of people, nor is it a nation, but has become a collective seriousness. In this context the state is a collective organization. Government is the embodiment of the principle of the state as an organization of (political) power, which contains an understanding that the state is obliged to protect its citizens or residents, territories and all-natural wealth and property of the state and its inhabitants. This is in line with what was expressed by Adolf Markel, who said that everything related to the public interest must be protected and guaranteed legally by the state.^[15] In East Timor, the government has launched a zero-plastic program. This program aims to protect the environment by not allowing the natural environment to become a place for

¹³Bodansky, Daniel, *Deconstruction the Precautionary Principle*, in D.D. Caron and H.N Scheiber (Eds), *Bringing New Law to Ocean Water*, (Netherland: Koninklijke Brill NV, 2004), pp. 383-386

¹⁴ <https://jurnal.uns.ac.id/yustisia/article/download/8742/7828>. accessed on 20/04/2022.

¹⁵Dr. Moh. Fadli, Mukhlis dan Mustafa Lufti, *Hukum dan Kebijaksanaan Lingkungan*, Malang, UB Press, 2016, hlm.,29

plastic waste. In order for this to be successful, law number 37/2020 is also issued, equipped with the principles of prevention and prudence. For situations of risk (risk) that can be applied is the principle of prevention. Meanwhile, for conditions of uncertainty, ambiguity, or ignorance that can be applied is the precautionary principle. Thus, it can be said that the precautionary principle is a precautionary principle that is applied to situations outside of risk. So, both the precautionary principle and the precautionary principle both call for prevention efforts. The difference lies in the conditions underlying the prevention efforts.

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