

# The Formulation of Precautionary Principle in the Local Regulation of Regional Spatial Order Plan Based on Life Environment Sustainability in Maluku Province

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## Abstract

The formulation of precautionary principle in the Local Regulation of Regional Spatial Order Plan based on life environment sustainability in Maluku Province can be elucidated as follows. *First*, the formulation of precautionary principle in Local Regulation of Regional Spatial Order Plan based on life environment sustainability in Maluku Province has emphasized upon precautionary principle stated in Article 2f UUPPLH and its explanation, and Article 3 Government Regulation No. 21 of 2005 and its explanation. *Second*, the author has reformulated Article 52 Verses (3f), (4a), (5c), (6d) and (7a) into Local Regulation of Regional Spatial Order Plan No. 16 of 2013 for Maluku Province.

**Keywords:** Formulation, precautionary principle, Local Regulation of Regional Spatial Order Plan, Based on Life Environment Sustainability

## 1. Introduction

The 1945 Constitution of the Republic of Indonesia, hereinafter referred to UUD NRI 1945, mandates the government, employers, and all elements of society must conduct environmental protection and management in the implementation of sustainable development and with environmental concept.<sup>1</sup>

The provisions of Article 28, paragraph H (1) and Article 33 paragraph (1-5) of the 1945 Constitution are the basic norms of environmental protection and management in Indonesia.<sup>2</sup> The state authority in the 1945 Constitution as the highest legal basis has the virtue, which is mentioned in the preamble: On a blessing grace of Allah Almighty and encouraged by the noble desire in order to live in free nationality, to promote general welfare, to educate the life of the nation, and to participate in the world's order based on national independence everlasting peace and social justice.

As the constitutional basis of the Republic of Indonesia, the 1945 Constitution further says that the natural resources are used to the maximum prosperity of the people. The prosperity must be enjoyed both by the present generation and future generation. The 1945 Constitution stipulates that development is not just the pursuit of physical prosperity or spiritual satisfaction alone but also the balance between the two. Environmental protection and management of the environment requires a balance of a system with integration as its main characteristic. This means that it is necessary to have a national policy for comprehensive protection and management to the environment.

The right to control the natural resources and environment is emphasized in Article 2 of Law No. 5 of 1960 on Basic Regulation of Agrarian (State Gazette of the Republic of Indonesia No. 104, Supplement to State Gazette of the Republic of Indonesia No. 2034) hereinafter referred to as UUPA (Agrarian Basic Law).<sup>3</sup> As the implementation of the the state's right to control the environment, Law No. 32 of 2009 on Environmental

<sup>1</sup>Helmi, Hukum Perizinan Lingkungan Hidup, (Jakarta: Sinar Grafika, 2012), p. 1.

<sup>2</sup>Article 28 A (1) of Indonesian Constitution states: Anyone has the right to live physically and spiritually welfare, reside, and get a good and healthy living environment and receive medical care. Article 33 (1-5) of the 1945 Constitution states; "(1) Economy is structured as a joint effort based on the principle of kinship. (2) The divisions of production which are important for the state and cover the welfare of many people are controlled by the state. (3) Earth and water and natural resources contained therein shall be controlled by the state and utilized for the welfare of the people. (4) National economy is organized based on economic democracy with the principle of togetherness, equitable efficiency, and sustainable, environmentally sound, independence and balancing economic progress and national unity. (5) Further provisions on the implementation of this article are set in the Law.

<sup>3</sup>Article 2 of Basic Agrarian Law (UUPA): Earth, water, and sky including the natural resources therein shall be controlled by the state and it is given the authority to: (1) manage and maintain the provision, use, supply and maintenance of earth, water and sky. (2) determine and regulate the legal relations between the people and the earth, water, and sky. (3) determine and regulate the legal relations between the people and legal regulations of the earth, water, and sky.

Protection and Management (State Gazette of the Republic of Indonesia No. 140, Supplement to State Gazette of the Republic of Indonesia No. 5059) was then enacted, which is hereinafter referred to UUPPLH (Environmental Protection and Management Law).

Spatial Order has been stated in Article 19 Verse (1) and (2) of UUPPLH. Both verses are expressed as follows: (1) To maintain the preservation of life environmental function and the safety of community, therefore, every regional spatial order planning must be based on KLHS; (2) The planning of regional spatial order as stated in Point (1) shall consider the supporting capacity and the retaining capacity of life environment.

The implementation of provisions in Article 2 and Article 14 Verse (1) and Article 15 UUPPLH has persuaded the government to make agreement with House of Representatives to launch Law No. 26 of 2007 about Spatial Restructuring (National Sheet of Indonesian Republic No. 68 of 2006; Additional National Sheet of Indonesian Republic No. 4739), and hereafter, this law will be called as UUPR. Principles and goals of spatial restructuring are expressed in Article 2c and 3 of UUPR.

#### Article 2

Regional Spatial Order Plan is made based on: a. Integration, b. Compatibility, Harmony and Balance; c. Sustainability; d. Efficiency and Effectiveness, e. Openness; f. Togetherness and Partnership; g. Protection of public interest; h. Law certainty and justice; and i. Accountability.

Article 2c may be explained as follows.

The government of Maluku Province with the agreement of Local House of Representatives in Maluku Province has prevailed Local Regulation No. 16 of 2013 about Regional Spatial Order Plan of Maluku Province for period 2013-2033 (Local Sheet No. 16 of 2013). Principles and goals of this Local of Regulation are highlighted in Article 4 and 5.

#### Article 4

Local Regulation of Regional Spatial Order Plan of Maluku Province as mentioned in Article 2 is provided by several principles such as:

a. Integration, b. Compatibility, Harmony and Balance; c. Sustainability; d. Efficiency and Effectiveness, e. Openness; f. Togetherness and Partnership; g. Protection of public interest; h. Law certainty and justice; and i. Accountability.

Protection and management of life environment are also considered. Spatial Restructuring involves early prevention such that the development is fluently conducted with certainty to preserve the function of life environment. By the absence of protection and management of life environment, and also without early spatial restructuring, it is not surprising if life environment is easily polluted or degraded. Conflicts or disputes between environment and development, between human and environment, or between human and other human are often happening especially when natural resources are less available.<sup>1</sup>

Besides these conflicts, environmental pollution and degradation are also influencing adversely the interest of natural resources. Indigenous or local peoples often challenge forest exploitation, plantation, tourism development, and highway construction. The most prominent cause of conflict between these peoples and others is mining activity. Tragedies also follow the process of spatial restructuring. Folk stories about Nipah Reservoir in Madura and Kedugomba Reservoir in Central Java, Misery Slums in Jakarta, Land or Coast Reclamation which destroys ecological balance at almost all parts in provinces, regencies or towns throughout Indonesia, until the standing of Hotel Mulia at Senayan and other buildings which defy Regional Spatial Order Plan<sup>2</sup> are some leading examples of tragedies. Similar conflict is also found in Ambon City in Maluku Province between the developer of BTN Lateri III and the community of Galala Coast. The conflict is caused by the carelessness of the developer of BTN Lateri III which is negligently disobeying Regional Spatial Order Plan and defying AMDAL. Marine biota is adversely influenced, thus reducing the employment of the community around Galala Coast.<sup>3</sup>

In addition to the Environmental Protection and Management Law (UUPPLH), the precautionary principle regarding the protection and management of environment, especially genetically modified products, is regulated in the Indonesian Government Regulation No. 21 of 2005 on the Biosafety Products of Genetically Modified Products (State Gazette of 2005 No. 44, Supplement to State Gazette No. 4498). Article 3 and the explanation set on the precautionary approach. Article 3 of the Regulation No. 21 of 2005 states: The setting applied in this government regulation uses the precautionary approach in order to achieve environmental security, food safety and/ or feed based on valid scientific method and considering the rules of religion, ethics, social culture, and aesthetics.

The precautionary principle, other than those set forth in Article 2 letter f of the Environmental Protection and Management Law (UUPPLH) and its explanation, Article 3 of the Government Regulation No. 21

<sup>1</sup>Herry Supriyono, The Management of Conflict and Environmental Dispute Settlement. Paper, 2006. p. 5.

<sup>2</sup>Ibid.

<sup>3</sup>La Ode Angga, et al, Community Service Report to Education Office of Higher Education, entitled with ADMAL Socialization at Lateri Village, Baguala District, Ambon City, 2009, p. 2.

of 2005 and its explanation, is also arranged in various international agreements, such as in Principle 15 of the 1992 United Nations Conference on Environment and Development (Rio Declaration of 1992), as follows: *“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 is also adopted in the 2000 Cartagena Protocol on Biosafety, as the guidance for decision making related to genetically modified organisms (GMOs). Article 11 paragraph 8 of the Cartagena Protocol states:

*“Lack of scientific certainty due to insufficient relevant scientific information and knowledge regarding the extent of the potential adverse effects of a living modified organism on the conservation and sustainable use of biological diversity in the Party of import, taking also into account risks to human health, shall not prevent that Party from taking a decision, as appropriate, with regard to the import of that living modified organism intended for direct use as food or feed, or for processing, in order to avoid or minimise such potential adverse effects”*.

Furthermore, the precautionary principle is set out in Article 5 of the French Environmental Charter which states: *“Lorsque la réalisation d’un dommage, bien qu’incertaine en l’état des connaissances scientifiques, pourrait affecter de manière grave et irréversible l’environnement, les autorités publiques veillent, par application du principe de précaution et dans leurs domaines d’attributions, à la mise en oeuvre de procédures d’évaluation des risques et à l’adoption de mesures provisoires et proportionnées afin de parer à la réalisation du dommage”*.

As a stepping stone on the precautionary principle in addition to those stated above both the settings at national and international level in this paper, the authors also cited several expert opinions in the field of law, i.e.:

1) M. Geistfeld, argues that:

*“In this case, the precautionary principle is considered to have a big role to change the direction of policy in the face of serious danger, but it is still uncertain. If, during this time, policy makers are often reluctant to take precautions against such danger, then with the precautionary principle, the potential danger can not be ignored simply on the grounds that the danger is still uncertain and overwhelmed by scientific uncertainty.”<sup>1</sup>*

2) Mas Achmad Santosa argues:

*“That in applying the precautionary principle, decision making should be based on: (1) serious evaluation to optimally prevent environmental damage that can not be recovered, (2) assessment by performing risk analysis using various options.”<sup>2</sup>*

3) Jimly Asshiddiqie states that the precautionary principle is used in an effort to anticipate and respond the concerns that arise as a result of possible harmful effects of technologies that pollute or harm the environment.<sup>3</sup>

4) Andri G. Wibisana said:

*“In short, the precautionary principle stems from growing concern for environmental protection, which in turn urges states to take measures to prevent environmental degradation even if the deteriorious effects of this degradation remain unprove”<sup>4</sup>*

Minimizing life environmental pollution and degradation will require precautionary principle and early prevention. Both precautionary principle and early prevention are aimed to anticipate and to develop early prevention of an impact of certain activity conducted by humans. Precautionary principle is shown by the presence of regulations related to protection and management of life environment.

Prevention may start immediately without knowing the scope of prevention and the extent to which the loss and damage are anticipated by this prevention. Prevention involves obvious steps although scientific evidences about the scope and influence of this prevention are still lacking. Possibly, this principle is only useful if the impact of damage is quite serious by estimation and may cause difficulty for life environment to make a recovery.<sup>5</sup> This principle has been developed fast throughout the earth as a principle with justifiable truth (*axiomatic*) that can be used to explain the importance of preserving life environment.<sup>6</sup>

UUPR does not explicitly mention about precautionary principle, early prevention and/or anticipative action either in principle arrangement or article arrangement (norms). Precautionary principles are even not explained in Local Regulation of Regional Spatial Order Plan No. 16 of 2013 for Maluku Province in period

<sup>1</sup>M. Geistfeld, as quoted by Andri G. Wibisana, *Konstitusi Hijau Prancis; Komentar Atas Asas Kehati-Hatian Dalam Piagam Lingkungan Prancis*, Jurnal Konstitusi Vol 8 Number 3, 2011, p. 241.

<sup>2</sup>Mas Achmad Santosa, *Good Governance dan Hukum Lingkungan*, (Jakarta, 2001) p. 166.

<sup>3</sup>Jimly. Asshiddiqie, *Green Constitution: Nuansa Hijau Undang-undang Dasar Negara Republik Indonesia Tahun 1945*. Jakarta: Rajawali Press, 2009, p. 65.

<sup>4</sup>Wibisana, G. Andri, *Three Principles of environmental law: The Polluter-Pays Principle, The Principle of Prevention, and the Precautionary Principle*, dalam Michael & Nicole Niessen (udited) *environmental law in Development, Lesson from the Indonesia Experince*, Cheltenham UK-Nothampton, MA, USA: Edward Elgar Publishing, Inc, 2006, p. 41.

<sup>5</sup>Freestone, David & Ellen Hey, 1996. *Origins and Development of the Precautionary Principle, discussed within The Precautionary Principle and International Law, The Challenge of Implementation*. Hague: Kluwer Law International, p. 12.

<sup>6</sup>Ibid. p. 12.

2013-2033, either in Chapter IV about Regional Spatial Pattern Plan with Articles from 15 to 41, or Chapter V about Regional Spatial Pattern with Articles from 42 to 55. Local Regulation of Regional Spatial Order Plan No. 16 of 2013 for Maluku Province, indeed, has some articles which show the word “prevention” but it does not concern with precautionary principle, early prevention and/or anticipative action.

The word “**Prevention**” in Local Regulation of Regional Spatial Order Plan No. 16 of 2013 for Maluku Province has been arranged in Article 52 in Verse (3f), (4a), (5c), (6d) and (7a) which are illustrated as follows.

Article 52

- (3) Regional Plan which protects the subordinate regions as stated in Verse (1) includes:
  - f. The preservation of ecosystem which marks the region through the action of **prevention** against destruction and also by recovering the original zone of ecosystem.
- (4) Protected Region Plan as stated in Verse (1) includes:
  - a. Regional plan through the action of **prevention** against the improper use of protected region.
- (5) Wildlife Region Plan as stated in Verse (2) includes:
  - c. Maintaining of the function of natural region ecosystem, including biota and physical attributes, through the action of **prevention** against the improper use of wildlife region that is already designed conservation interest.
- (6) Natural Preservation Region Plan as stated in Verse (2) includes:
  - d. Improving environmental quality around national park and natural tourism park through the action of **prevention** against any activities with pollution potentials.
- (7) Natural Disaster Region Plan as stated in Verse (2) includes:
  - a. Protecting humans through the action of **prevention** against the use of region of volcanic lava channel for housing activities.

It seems that the word “**prevention**” in Article 52 in Verse (3f), (4a), (5c), (6d) and (7a) of Local Regulation of Regional Spatial Order Plan No. 16 of 2013 for Maluku Province has been referred to the prevention of damage in the management of life environment. Principles of “*Prevention of Environmental Harms*” have been enforced through Stockholm Declaration, Rio Declaration, and Johannesburg Declaration.

Such prevention principles are not explicitly explained in UUPR and also in Local Regulation of Regional Spatial Order Plan No. 16 of 2013 for Maluku Province in period 2013-2033, either in Chapter IV about Regional Spatial Pattern Plan with Articles from 15 to 41 or Chapter V about Regional Spatial Pattern with Articles from 42 to 55. Not surprisingly, UUPR cannot stand in harmonic way with Article 2f UUPPLH. Less synchronous situation is found between Local Regulation of Regional Spatial Order Plan for Maluku Province and Article 2f UUPPLH. It seems that Article 2f UUPPLH has explained about carefulness principle in the protection and management of life environment in Indonesia.

Based on the background mentioned above, the problem can be formulated as follows:

How precautionary principle shall be formulated into Local Regulation of Regional Spatial Order Plan No. 16 of 2013 for Maluku Province?

## 2. Research Method

This research was a normative research, which is the research of the principles of law, legal norms in terms of value (norm) of concrete legal rules and legal systems.<sup>1</sup> This research used several approaches, such as: philosophical approach, statute approach, comparative approach<sup>2</sup>, historical approach, and conceptual approach<sup>3</sup>.

## 3. Theoretical Framework

In this research, the authors used the theory as the analysis knife which includes: Theory of Welfare State as the Grand Theory, supported by the Science of Law as the Middle Range Theory, and The Green Political Theory and Constitution of the Green Contitution as the Applied Theory.

### 3.1. The Theory of Welfare State

In the theory of the welfare state, the purpose of the state is seen as an instrument to achieve a common goal, namely prosperity and social justice for all Indonesian people.<sup>4</sup> The theory of Welfare State is an integration between the concept of state and the welfare state. The theory of Welfare State is used with the argument that government as the power holder has a duty and responsibility for the welfare and fulfillment of basic rights of citizens which can not be achieved themselves. The concept of the welfare state requires the state role to extend

<sup>1</sup>Sudikno Mertokusumo, *Penemuan Hukum*, (Yogyakarta: Liberty, 2009), p. 29.

<sup>2</sup>Theory Hutchinson, *Researching and Writing in Law*, Lawbook Co, Pyrmon NST 2009 Australia, 2002, p. 55.

<sup>3</sup>Peter Mahmud Marzuki, *Penelitian Hukum*, (Jakarta: Kencana Prenada Media Group, 2008), p. 93.

<sup>4</sup>CST Kansil dan Christine ST. Kansil, *Hukum Tata Negara Republik Indonesia (1)* (Jakarta: Rineka Cipta, 1977), p. 20.



its responsibilities to socio-economic problems faced by many people.<sup>1</sup>

The birth of the welfare state was as a reaction to the failure of the concept of classical state of law and socialist state of law. Both the concept and the type of state of law have different basis and forms of state control over economic resources. Theoretically the difference was motivated and influenced by the ideologies or principles espoused. In classical liberal state of law, it was influenced by the ideology of liberalism or classical state of law, while the socialist state of law was influenced by Marxism.<sup>2</sup> In the context of the formulation of precautionary principle, a state is obligated to set legislations in favor of environmental protection and management in accordance with the constitution of the Republic of Indonesia in Article 28.

### 3.2. The Science of Legislation

The use of second theory in this research was the science of legislation. The science of legislation is the science learning everything associated with a set of laws examined regarding legal technique, content material, principles, language to the drafting of legislation because the real object of the science of legislation is a part of the science of constitutional law in a general sense. Therefore, the method and approach are not much different from the method and approach to constitutional law.

According to B. Hestu Cipto Handoyo, the Science of Legislation is a sub-division of science of law in which the object of study is researching on the symptoms of regulatory legislation, namely any written decision issued by a competent authority to regulate human behavior which is generally binding and valid. In other words, the science of legislation is oriented to perform the act, in this case, of forming of regulatory and normative legislation. The science of legislation is divided into:

- a) The process of legislation (*gezetsgebungsverfahren*); it includes several stages in the making of legislation such as the phases of preparation, establishment, implementation, assessment and re-integration of finished product.
- b) The method of legislation (*gezetsgebingsmethode*); the study of the making of a regular type of legal norms to achieve its target. It refers to the matters relating to the formulation of the elements and structure of the provision in a norm, such as the object, subject, operator and condition of norms.
- c) The technique of legislation (*gezetsgebingstechnic*); it reviews the matters relating to the text of a law including the forms of outer, inside, and language variety of legislation.

The theory of legislation in this research was used as the analysis by arguing that a good legislation or policy should reflect good alignment of lawmakers to environmental protection and management. The reason for using the theory of the science of legislation as the Middle Range Theory is based on an understanding that in the formulation of the precautionary principle formulation in the regulatory policies of Maluku provincial government in order to get good results and be maximized.

### 3.3. The Theory of The Green Political dan Green Constitution

The term "green constitution" in the cross-border of constitutional development of countries in the world in specific is not something new. It can not be denied that in the context of Indonesian affairs, the discourse of "green constitution" as a term is not too long ago introduced. Nevertheless, for those who are active and get along with various developments related to the dynamics of legal thought and constitutional practices in the contemporary world, both through scientific journals and many new books, as well as through the Internet, is certainly not going to feel unfamiliar with the term "green constitution". In the Indonesian context, the provisions regarding green constitution can be seen in Article 28 paragraph H (1)<sup>3</sup> and Article 33 paragraph (4) NRI of the 1945 Constitution, which states the right to obtain a good and healthy living environment as well as good health care as a human right. Therefore, the 1945 Constitution is clearly highly pro-environment, so it can be referred to as the green constitution.

In constitution, the discourse surrounding the concept of green constitution, constitutional ecology and ecocracy can be said to be reflected in the notion of power and human rights as well as the concept of economic democracy in the 1945 Constitution. It means , the country also embraces the concept of green constitution with the assumption; when supreme power or sovereignty is in the hands of people as reflected in the concept of the human right to good and healthy environment as stated in Article 28 paragraph H (1) of the 1945 Constitution, and it is also reflected in the concept of democracy related to the principle of sustainable development and environmentally sound, as affirmed in Article 33 paragraph (4) of the 1945 Constitution. It is the proof that the concept has been accommodated in the provisions of Indonesian constitution.

<sup>1</sup>Jimly Asshiddiqie, (1994), *Gagasan Kedaulatan Rakyat dalam Konstitusi dan Pelaksanaannya di Indonesia*, Jakarta: Ichtisar Baru Van Hoeve, p. 223.

<sup>2</sup>Abrar Saleng, *Hukum Pertambangan* (Yogyakarta: UII Press, 2004) (Anggota IKAPI) p. 9.

<sup>3</sup>See the provisions of the 1945 Constitution in article 28H ayat (1) "Anyone has the right to live physically and spiritually welfare, reside, and get a good and healthy living environment and receive medical care."

Green politic movement in Indonesia began with the awareness spurred by Indonesian national condition in which there was a variety of environmental damage caused by the development which was oriented too much on growth and exploitative development strategies so that it threatened environmental sustainability. According to Emir Salim, the essence of development is to strive for life sustainability).<sup>1</sup>

#### 4. Research Result and Discussion

##### 4.1. Definition of Spatial Order

Spatial or space is defined by Article 1 Number 1 UUPR as:

“the containers involving lands, marines and airs, and those under the earth which are considered as a regional unity where humans and other creatures are lived upon, doing activities and maintaining their viability”.

According to D.A. Tisnaamidjaja, a space is:

“a physical manifestation of region which is based on geographical and geometrical dimensions representing the container for humans to implement their life activities in a reliable life quality”.<sup>2</sup>

Space is a place for human viability. Space is also natural resources as the gift from God for Indonesian peoples. Therefore, regional space of Indonesia is an asset that must be utilized and kept by Indonesian peoples in coordinated, integrated and effective ways by considering several important factors such as: economic, social, culture, defense and security, and preservation and sustainability of life environment to create the harmonious and balancing national development.

Moreover, the Decree of The Ministry of Housings and Regional Infrastructure No. 327/KPTS/2002 about The Determination of Six Manuals of Spatial Restructuring, has interpret a space as:

“the containers involving lands, marines and airs, which are considered as a regional unity where humans and other creatures are lived upon, doing activities and maintaining their viability”.<sup>3</sup>

##### 4.2. Conceptual Definition about precautionary principle

Precautionary principle is firstly shown up as life environment principle in German environmental law, called *Vorsorgeprinzip*. The attributes includes *foresight* (review of the future) and *taking care* (carefulness). *Vorsorgeprinzip* has required the nation to avoid the damage/pollution of environment by conducting careful planning. This principle justifies the program of prevention against excessive pollution through the application of the best available technology to minimize further possibilities of pollution.<sup>4</sup> Beginning with German and also Scandinavian nations, precautionary principle is then adopted into various declarations and agreement about marine protection in Europe. The first formulation of precautionary principle at international level is found at *The 1984 Bremen Declaration* adopted during *First International Conference on the Protection of the North Sea*. The Declaration espouses that:

"..... damage to the marine environment can be irreversible or remediable only at considerable expense and over long periods and... therefore, coastal states... must not wait for proof of harmful effects before taking action".

Precautionary principle in various international documents is considered as *guidance* in decision making during situations of *scientific uncertainty*. In general, precautionary principle is taken into account if there are *threats of serious or irreversible damage*. The decision makers cannot use scientific uncertainty as the reason to postpone the prevention due to the perception of threats.

Precautionary principle is firstly used as life environment principle in German environmental law, called *Vorsorgeprinzip*. This principle involves elements such as *foresight* (review of the future) and *taking care* (carefulness). It requires the nation to avoid the damage/pollution of environment by conducting careful planning.

*Vorsorgeprinzip* becomes a justification for the program of prevention against excessive pollution through the application of the best available technology to minimize further possibilities of pollution.<sup>5</sup> Starting

<sup>1</sup>Emil Salim, “Membangun Paradigma Pembangunan” dalam makalah Peluncuran Buku dan Forum Diskusi Mengenai Hasil-Hasil dan Tindak Lanjut KTT Pembangunan Berkelanjutan, Jakarta: April 11, 2003.

<sup>2</sup>See D.A. Tisnaamidjaja, Op. Cit.

<sup>3</sup>See The Decree of Minister of Housing and Regional Structure No. 327/KPTS/2002 about The Definition of Space.

<sup>4</sup>A. Jordan and T. O’Riordan, "The Precautionary Principles in Contemporary Environmental Policy and Politics", quoted within C. Raffensperger and J. Tickner (eds.), *Protecting Public Health and the Environment: Implementing the Precautionary Principles* (Washington, DC: Island Press, 1999), P. 19-20. See also: E. Fisher, J. Jones, and R. Von Schomberg, "Implementing the Precautionary Principle: Perspective and Prospects", quoted within E. Fisher, J. Jones, and R. Von Schomberg (eds.), *Implementing the Precautionary Principle: Perspective and Prospects* (Cheltenham, UK: Edward Edgard, 2006), p. 2-3.

<sup>5</sup>A. Jordan and T. O’Riordan, "The Precautionary Principles in Contemporary Environmental Policy and Politics", quoted within C. Raffensperger and J. Tickner (eds.), *Protecting Public Health and the Environment: Implementing the Precautionary Principles* (Washington, DC: Island Press, 1999), Page. 19-20. See also: E. Fisher, J. Jones, and R. Von Schomberg, "Implementing the Precautionary Principle: Perspective and Prospects", quoted within E. Fisher, J. Jones,

with German and Scandinavian nations, carefulness principle is then adopted into various declarations and agreement of marine protection in Europe. The first formulation of carefulness principle at international level is shown at *The 1984 Bremen Declaration* which is adopted during *the First International Conference on the Protection of the North Sea*. The Declaration asserts that:

"..... damage to the marine environment can be irreversible or remediable only at considerable expense and over long periods and... therefore, coastal states... must not wait for proof of harmful effects before taking action".

The recognition of precautionary principle is also highlighted further in several documents such as: *The 1987 London Declaration* adopted during *the Second International Conference on the Protection of the North Sea*; *The 1990 Hague Declaration* adopted during *the Third International Conference on the Protection of the North Sea*; *The 1995 Esjberg Declaration* adopted during *the Fourth International Conference on the Protection of the North Sea*; and *The 2002 Bergen Declaration* adopted during *the Fifth International Conference on the Protection of the North Sea*. Considering these declarations as departing point, carefulness principle is also adopted in *The 1992 Convention on the Protection of the Marine Environment of the Baltic Sea Area*, *The 1992 Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention)*, *The 1995 Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (The 1995 Barcelona Convention)*, *The 1996 Izmir Protocol on the Prevention of Pollution of the Mediterranean Sea by Transboundary Movements of Hazardous Wastes and their Disposal*, and *The 2002 Valletta Protocol Concerning Cooperation in Preventing Pollution from Ships and in cases of Emergency*. Beyond marine protection regimes, precautionary principle has been entered into *World Charter of Nature* which is then adopted by General Assembly of United Nations in 1982. World Charter of Nature has formulated precautionary principle as follows:

- a. "Activities which are likely to cause irreversible damage to nature shall be avoided".
- b. "Activities which are likely to pose a significant risk to nature shall be preceded by an exhaustive examination; their proponents shall demonstrate that expected benefits outweigh potential damage to nature, and where potential adverse effects are not fully understood, the activities should not proceed..."

The arrangement of precautionary principle in Indonesian national law has been indicated in Article 2 UUPPLH. It is explained that the protection and management of life environment shall be based on principles of:

- a. national responsibility; b. preservation and sustainability; c. compatibility and balance; d. integration; e. usefulness; f. **precautionary**; justice; h. eco-regionalism; i. biodiversity; j. polluter-must-pay; k. participation; l. local wisdom; n. good governance; and o. local autonomy.

Article 2f UUPH has stated that:

"the uncertainty of the impact of works and/or activities due to the limited expertise of science and technology is not the reason to postpone any steps to minimize or to avoid threats of pollution and/or damage of life environment".

In addition to UUPPLH, precautionary principle for the protection and management of life environment is also exhibited within Regulation of Indonesia Government No. 21 of 2005 about Biological Security of Genetically Modified Product (National Sheet No. 44 of 2005, Additional National Sheet No. 4498). Article 3 of this Regulation provides the explanation of carefulness principle. It is stated as follows:

"the arrangement applied in this Government Regulation has used carefulness approach to ensure the security of environment, food and/or wool based on reliable scientific methods and also by considering norms of religion, ethic, socio-culture and esthetic.

#### 4.3. The Concept of Formulation Policy.

Talking about the concept of formulation policy, it is derived from two words; "policy" and "formulation". According to Webster's New World College Dictionary, "policy" is "a principle, plan, or course of action, as pursued by a government organization, individual, etc".<sup>1</sup> Meanwhile, the word "formula" in *Kamus Besar Bahasa Indonesia* (Indonesian Dictionary) is defined as a formulation, composition or form.<sup>2</sup> Therefore, when the two words are combined into one word and meaning, the meaning of formulation policy is principle, plan, or action taken by government organizations, individuals and others in accordance with a defined formula.

According to Harold D. Lasswell and Abraham Kaplan, the definition of formulation policy is a program to achieve directed goals, values and practices.<sup>3</sup> Carl J. Friedrich defines formulation policy as the proposed series of action of individual, group or government in a particular environment by showing a series of obstacles and opportunities for the implementation of the proposed policy to achieve certain goals.<sup>4</sup> Formulation policy,

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and R. Von Schomberg (eds.), *Implementing the Precautionary Principle: Perspective and Prospects* (Cheltenham, UK: Edward Elgar, 2006), p. 2-3.

<sup>1</sup>Simon and Schuster, (1997), *Webster's New World College Dictionary*, Macmillan, Inc, Cleveland, Ohio, p. 1045.

<sup>2</sup>Ministry of Education and Culture,(1989) *Kamus Besar Bahasa Indonesia*, Jakarta: Balai Pustaka, p. 1021.

<sup>3</sup> M Irfan Islamy, (2002) *Prinsip-prinsip Perumusan Kebijakan Negara*, Jakarta: Bumi Aksara, p. 15.

<sup>4</sup>*Ibid.*, p. 17.

according to Jame E. Enderson, is a series of actions that has a particular purpose, followed and implemented by a person or a group of actors to solve a particular problem.<sup>1</sup> Furthermore, the concept of formulation policy, according to Barda Nawawi Arief, is a plan or program of lawmakers about what will be done in the face of certain problems and ways how to do or accomplish something that has been planned or programmed.<sup>2</sup>

Based on such understanding, the components of formulation policy include: a) planned or programmed series of actions; b) a particular purpose and; c) solving a particular problem. Formulation policy must consider the value system of mutual agreement which is, in the context of Indonesia, the Pancasila values.<sup>3</sup> Formulation policy of precautionary principle in environmental protection and management in agriculture for the variety excellence of genetically modified products should also be guided by the shared value system of Indonesian people, namely Pancasila so that it can provide a sense of justice and legal certainty in accordance with the constitutional rights of every citizen.

#### 4.4. The Concept of Environmentally Sound Sustainable Development

Environmentally sound sustainable development essentially reflects the meaning full of hopes to integrate environment into development process in order to guarantee the ability, welfare and quality of life of the present and future generation. This principle is the philosophical foundation of national development although the reality shows that the intensity of pollution and environmental degradation persists and threatens people's lives and the environment itself.<sup>4</sup>

In a juridical perspective, the principle of environmentally sound sustainable development is a well-planned and conscious effort which combines the aspects of environment, social, and economic in development strategies to ensure the needs of the environment as well as the safety, ability, welfare, and quality of the life of future and present generations. In addition, environmental protection and management are implemented by the principle of: state responsibility, sustainability and preservation, preservation and balance, integration, benefit, precautionary, justice, ecoregions, biodiversity, paying pollution, participatory, local wisdom, good governance, and regional autonomy aimed to realize environmentally sound sustainable development in order to complete Indonesian human development and the development of the whole Indonesian society who have the faith and obedience to God Almighty.<sup>5</sup>

In line with these provisions, Emil Salim said: "environmental element is dissolved in development. Environmental elements are not seen separated from development as the separation of sugar from tea water, but it dissolves in sustainable development such as dissolved sugar in sweet tea".<sup>6</sup> Thus, the philosophy of environment and development related to the application of the principles of environmentally sound sustainable development, in addition to emphasize the aspects of welfare and quality of life of present and future generations, it is also concerned about the carrying capacity of environment in sustaining human life and other living things.

Environmentally sound sustainable development is one of the principles of environmental law in which, at empirical or operational level, it can be utilized in order to prevent the existence of environment of any threat of pollution and damage because the principles of thought underlying the philosophy integrates the needs of present and future generations for good and healthy environment and strives the environmental quality to be well-maintained from any negative impacts caused by national development.

It is inevitable that the negative consequences or impacts of development are pollution and environmental damage although such legal instruments as UUPPLH have been applied as preventive and repressive efforts against the environmental sustainability of the threats and disturbances by public or businesses. In implementing progressive changes to the legal instrument in the form of UUPPLH, it is expected to minimize ecological risk caused by the impacts arising from development which does not consider the aspects of

<sup>1</sup>Ibid.

<sup>2</sup>Barda Nawawi Arief, (2001), *Masalah Penegakan Hukum dan Kebijakan Penanggulangan Kejahatan*, Bandung: Citra Aditya Bakti, p. 75

<sup>3</sup>Ibid., p. 121.

<sup>4</sup> Environmental pollution and destruction occurred until recently in Indonesia, for example: 1). hot mud spurt of Lapindo Brantas in East Java (2006), 2). The occurrence of forest fires in Riau (2003- to present), 3). Pollution in Buyat Gulf in North Sulawesi by PT Newmont Minahasa Raya (2004), 4). The forest fires in West Kalimantan (2005), 5). Illegal logging in Kalimantan, 6). Pollution of Surabaya rivers (1995-2005), 7). The Function Transfer of Protected Forest into urban areas in Riau (2007), 8). The forest damage in East Kalimantan (2004-2008), according to the research conducted by the Forum for the Environment (WALHI) in 2008, represented the culmination of environmental damage in East Kalimantan. It is said no less than 900,000 hectares (ha) of forest in the province were damaged or changing their functions. The conversion of forest area has been out of control, not for the wood alone, but other industrial sectors even use them more frequently. The WALHI Research is not much different from the data owned by the Forest Service in East Kalimantan. It shows that the damaged forest area has increased every year. In 2000-2004, the average damage reached 500,000 hectares of forest per year. While in the period of 2004-2008, the destruction of forests reached 900,000 ha.

<sup>5</sup>See in the Provision of Article 1 Number 3 dan Chapter II Article 2 of UUPPLH.

<sup>6</sup>Emil Salim, *Pembangunan Berwawasan Lingkungan*, (Jakarta: LP3ES, Sixth Edition, 1993), p. 9



environmental sustainability. Furthermore, it should also be accompanied by the serious efforts of the state in the conduct of law enforcement against businesses causing environmental pollution and destruction.<sup>1</sup>

Various kinds of impacts are caused by development to the existence of environment. Then, the question is; can the legal instrument (UUPPLH) control the environmental problems in Indonesia? The answer to this question, in the viewpoint of Jawahir Thontowi, is that:<sup>2</sup> "set of laws is not enough if it is not accompanied by the government's political will as well as the problem of poverty".

Therefore, it can be concluded that environmentally sound sustainable development is one of the principles of environmental law in the context of national development, and the fundamental foundation and references which are essential in the effort to prevent pollution and environmental damage caused by the activities in the field of environmental management.

#### 4.5. Formulation of Author

The formulation of precautionary principle in Local Regulation of Regional Spatial Order Plan No. 16 of 2013 for Maluku Province can be elucidated by the author as follows. In Article 4, the author arranges precautionary principle by adding letter j to illustrate precautionary principle. This principle is also arranged by embedding the word "precautionary" to replace "prevention" into Article 52 at Verses (3f), (4a), (5c), (6d), and (7a). Hereby, the formulation will be as follows.

Article 52 Verse (3) will be that Regional Plan which protects the subordinate regions as stated in Verse (3) includes: (f) The preservation of ecosystem which marks the region through the action of **precautionary**. Article 52 Verse (4) becomes that Protected Region Plan as stated in Verse (1) includes: (a) Regional plan through the action of **precautionary** against the improper use of protected region. Article 52 Verse (5) will be that Wildlife Region Plan as stated in Verse (2) includes: (c) Maintaining of the function of natural region ecosystem, including biota and physical attributes, through the action of **precautionary** against the improper use of wildlife region that is already designed conservation interest. Article 52 Verse (6) becomes that Natural Preservation Region Plan as stated in Verse (2) includes: (d) Improving environmental quality around national park and natural tourism park through the action of **precautionary** against any activities with pollution potentials. Article 52 Verse (7) is changed to that Natural Disaster Region Plan as stated in Verse (2) includes: (a) Protecting humans through the action of **precautionary** against the use of region of volcanic lava channel for housing activities.

#### 5. Conclusion

The formulation of precautionary principle in Local Regulation of Regional Spatial Order Plan based on life environment sustainability in Maluku Province is concluded as follows. *First*, the formulation of precautionary principle in Local Regulation of Regional Spatial Order Plan based on life environment sustainability in Maluku Province has emphasized upon precautionary principle stated in Article 2f UUPPLH and its explanation, and Article 3 Government Regulation No. 21 of 2005 and its explanation. *Second*, the author has reformulated Article 52 Verses (3f), (4a), (5c), (6d) and (7a) into Local Regulation of Regional Spatial Order Plan No. 16 of 2013 for Maluku Province.

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<sup>1</sup>Sri Hastuti Puspitasari, Pembangunan, Risiko Ekologis dan Perspektif Jender, in Erman Rajagukguk and Ridwan Khairandy (Editor), *Hukum dan Lingkungan Hidup Indonesia*, Post-Graduate Program, Faculty of Law, University of Indonesia, Jakarta, 2001, p. 28.

<sup>2</sup>Jawahir Thontowi, Krisis Lingkungan Sebagai Tantangan Global: Analisis Perbandingan Aturan Hukum Barat dan Hukum Islam, in Erman Rajagukguk and Ridwan Khairandy (Editor), *Hukum dan Lingkungan Hidup Indonesia*, Post-Graduate Program, Faculty of Law, University of Indonesia, Jakarta, 2001, p. 75.

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