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How Effective is the Environmental Law for the Conservation of the Leuser Ecosystem Area in Indonesia?

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ABSTRACT
The article aimed to investigate the policies in the environmental law in Indonesia and its effectiveness for the Leuser ecosystem area. The method used in this research was a normative and empirical method through legal, comparative, and historical approach. The data were analyzed based on descriptive analysis through inductive and deductive interpretation. The results showed that the environmental law in Indonesia had undergone significant progress in many aspects, one of which was in a reinforcement of criminal and private law and the implementation of strict liability principle. In addition, the law employs a biocentrism principle aiming to improve people's lives by considering human as the center (anthropocentrism) to a holistic position; that is, all elements are related. However, the environmental law has not successfully been implemented due to the disputes between policymakers in the central and local governments, regarding development and environment, ecology and economy. Moreover, it is because the strict liability principle has not been considered as the foundation for law enforcement yet.
Keywords: *exploitation, conservation, Leuser ecosystem area, the law regarding the environment*

1. INTRODUCTION

Leuser ecosystem area is located in Indonesia, i.e. in Aceh province and North Sumatra, with the essential biodiversity on the earth. It is the broadest Malesian forest as a conservation area, which is undisturbed. This area harbors the most significant number of animals in Asia, including more than 105 species of mammals, 382 birds and at least 95 reptiles and amphibians (54% of the animals in Sumatera terrestrial). Furthermore, this area is the last protection for rare species population, such as tigers, orangutans, rhinos, elephants, and leopard and various diversities [1].

It is expected that the area ecological services are worth USD 600 million annually. Also, this area has an essential function for the local climate, which helps to decrease global warming. About 1.5 billion tons of carbon is stored in this forest (Buletin Jejak Leuser, 2006). It is also a great potential for the development of tourism scheme with the concept of ecotourism [2].

Leuser ecosystem area has a long history, started in 1927. It began with a local leader of Aceh requesting to the Dutch Hindia government to preserve Alas Valley area from deforestation. The proposal was followed up by the Dutch government (DR. Van Heurn) to protect the areas from southern Singkil, Bukit Barisan, Tripa river to coast swamp river in Meulaboh. On February 6, 1934, *Tapak Tuan* declaration was issued by the local community who were willing to maintain the Leuser area, and this declaration was signed by the governor of the Dutch East Indies. On July 3, 1943, the government of Dutch East Indies converted this area into conservation called Leuser Mountain Suaka Alam, with an area of 142,800 ha based on ZB No. 317/35. This area was the foundation of the establishment of *Taman Nasional Gunung Leuser* (Leuser Mountain National Park). It was followed by the establishment of Suaka Margasatwa Kluet (Kluet Wildlife) based on ZB No. 122/AGR with an area of 20,000 ha.

Furthermore, on March 6, 1980, the Indonesian government through the Ministry of Agriculture declared the establishment Leuser Mountain National Park with an area of 792,675 ha through the Decree of the Ministry of Agriculture No. 69/Kpts/Um/II/1980. Afterwards, the Conservative Area Regional department of Leuser Mountain was established to manage the Leuser Mountain National Park. In 1981, USERCO decided to consider it as biosphere conservation after the Indonesian government proposed it. In 1997, based on the Decree of the Ministry of Forestry No. 276/Kpts-II/1997, the area was declared as a national park with an area of 1,094,692 Ha. In June 2014, based on the decision from the UNESCO World Heritage Committee, the Indonesian Government declared the

Leuser Mountain National Park, the Kerinci Sebelat National Park, and Southern Bukit Barisan National Park as a group of Sumatran Tropical Rainforest Heritage (Buletin Jejak Leuser, 2006).

In 2006, the Government and the House of Representatives enacted Law No. 11 of 2006, regarding the Governing of Aceh in which, based on Article 150, Aceh Government was mandated by the central government to manage Leuser ecosystem area in Aceh province by preserving, saving, conserving, and recovering the function of the area. Therefore, the management of the area is no longer the responsibility of International Leuser Organization, as regulated in the Presidential Decree No. 33 of 1998 concerning the management of the Leuser ecosystem area. The Aceh Government, based on Governor Regulation No. 52 of 2006, established the Leuser Ecosystem Area Management Division in 2006 [3]. Generally, this division ensures the sustainable management of the area. This area was also declared a national strategic area based on the Government Regulation No. 26 of 2008, regarding the National Spatial Plan, where the management is decided based on ecological functions in the area.

Unfortunately, the Leuser ecosystem area has been massively exploited, resulting in an adverse impact on its ecological functions. From 2005 to 2009, the damage on the forest reached 34,000 ha. In early 2005, the area covered by the forest was 1,982,000 ha, and the area decreased to 1,946,000 due to deforestation [4].

This situation should have been resolved and minimized [5]. With the establishment of the environmental law, i.e. Law No. 32 of 2009, protection and management of the environment could have been better. The law, based on its philosophical principle, has laid a strategic foundation, including (1) healthy environment that is a part of human rights, (2) development through economic activities, and (3) the implementation of special autonomy which includes sustainable environmental context.

Although this issue is significant, no study has addressed it comprehensively. Previous studies focused on an environment concerning the environment law. The effectiveness of such a law has not been found in the literature. The current research is the pioneer in analyzing the policies in the environmental law and its effectiveness regarding the protection and management of the environment as the environmental law in Indonesia, concerning the existing condition in Leuser ecosystem area. In other words, the current research aimed to analyze whether the environmental law was effective to prevent exploitation and to encourage conservation in the Leuser ecosystem area. The results of this research will be beneficial for enriching the environmental law in Indonesia so that its implementation will more effective in the future.

The organization of this article starts with an introduction which provides the background and the purpose of the research, followed by method section explaining the source of data and data collection method. The next section presents and discusses the results. It is summarized by the conclusion section and list of references.

2. MATERIAL AND METHOD

The method used in the current research was a normative legal research study, commonly known as a doctrinal research method. In this research, the law is seen as regulations or norms on which certain appropriate behavior is based (Amiruddin and Asikin, 2004:118)[6]. A normal research study is a legal research study conducted by observing literature on secondary data. This research covers research on legal principles, the legal system, vertical and horizontal synchronization, comparative law, history of law, and inventory of positive law (Soekarno and Mamudji, 2004:13-14)[7].

The inventory of positive law is a preliminary activity. It is significant to find positive law before finding concrete legal norms. The activity of inventorying positive law is an identification process which is based on a critical, logical, and systematic analysis. It is one of the phases in a comprehensive research process (Amiruddin and Asikin, 2004:120-121)[6].

Based on the explanation above, the authors concluded some important criteria to observe effectiveness, i.e. commitment or concern from the government, the mechanism for the law enforcement, the mechanism for a permit, and synchronization between regulated articles.

3. RESULTS AND DISCUSSION

3.1. Environmental law and its development

The environmental law has a long history in Indonesia, starting from the colonialization to the reformation era. During those periods, the environmental law had undergone some changes. The last change was made when Law No. 32 of 2009, regarding environmental protection and management, was established. This regulation was intended to ensure preservation and sustainability. It is also explicitly regulated in the 1945 Constitution of the Republic of Indonesia, article 33, which has been amended, stating that the national economy is managed by the principles of sustainability and environmental friendliness.

In addition, another important goal is to respond to the global development that requires consideration concerning the principle of sustainability through various international initiative, such as the initiative of Sustainable Development Goals (SDGs). There are also some other reasons which initiated changes in environmental law. The definition of the concept of the sovereign has become a problem in various countries, particularly regarding border and pollution affecting other countries. Furthermore, there is a change in the orientation of interest from the national level to the global level, where many countries should adjust to the global interest. In addition, the development in science leading to technological development has resulted in environmental problems, such as the cases of forest destruction in many countries, including Indonesia. These all are the results of development as the population grows, and the human needs increase. The global awareness about and unrestricted access to the environment make environmental law even more significant (Pramudianto, 2017:35-40)[8].

Point 3 in Article 1 of the environmental law states that sustainable development is an effort to integrate the aspects of the environment, social and economical in

the implementation of development to ensure the sustainability for current and future generations.

Kuswanto (in Helmi, 2011:100) mentioned five dimensions of the sustainable development concept [9], namely: 1) the integration between development and environmental problems; 2) the development is not solely economic growth; 3) the limitation between technology and the environment; 4) the importance of involving many aspects, such as social, justice and democracy as integrated parts of the environment management; and 5) the inequality between the aspects influencing the goals and priority of development. Bracci (2013:541) stated that a sustainable development is "a development that guarantees a durable satisfaction of the human needs and increases the quality of life, because the satisfaction of the present needs will not sacrifice the future generations or, in other words, the present use of the environmental resources does not have to compromise the environmental stock (and real income) for the future generations. The need for appropriate environmental management has emerged in the last ten years, in relation to the recognition of the environment as a significant criticality." [10]

Law No. 32 of 2009, regarding the environmental protection and management, stipulated in 2009, covers five principles, i.e. intergenerational equity, justice in a generation, precaution, biodiversity conservation, and environmental cost internalization [9].

The environmental law also plays a very strategic role in the legal development in Indonesia. The intensity of development and economic growth threaten the environmental aspect, so it needs to be maintained. According to Rangkuti (2005:1-2), environmental law does not only function to control but also to create legal certainty for all parties [11].

According to Helmi (2011:100), the environmental law covers the values related to *das sein* (what has happened) and *das solen* (what should be done), which regulate the environmental aspects. In addition, environmental law regulates the relationships between human and other entity, and punishment should be given if it is violated [9].

Generally, environmental law in Indonesia has some strengths. It employs a strict liability concept. According to this concept, a criminal is holding liability for the crime s/he committed regardless of whether the crime is intended or unintended [12]. This concept has been internationally applied. Some international conventions have applied this strict liability concept, such as the convention of third-party liability in the field of nuclear energy, civil liability for oil pollution damage, November 29th, 1969, Brussel. Many other international conventions have subscribed to this strict liability concept [13].

Many international instruments regarding international regulations commit to ensuring that environmental protection becomes the main objective to be implemented through green or blue development [14]. One of these commitments was the application of the strict liability concept.

Indonesia has implemented the strict liability concept through the environmental laws, such as in Article 88, stating that each person, whose business or other activities using hazardous or toxic materials, produce and/or manage the hazardous or toxic material waste posing a serious threat to the environment, hold the strict liability for damages that occur without the need to prove the fault element.

Unfortunately, although environmental law has made it possible for the application of the strict liability concept, not many use this opportunity. Some experts said that the main reason for this problem is that because the court in Indonesia is not yet accustomed to such a concept. Judges in Indonesia still subscribe to Vicarious Liability concept, in which the legal responsibility of an individual is imposed on another [15].

If this concept were implemented, according to Fadhillah (in Elnizar, 2018), it would make the job of the prosecutors easier in proving the wrongdoing of a defendant [16]. They only needed to prove that the defendant executed the actions. Therefore, businessmen would be more careful not to violate the rules in environmental law. In addition, the preparation for required environment-related documents, such as Environmental Impact Analysis or environmental audit would be more straightforward, and it would give a chance for society to obtain the information. The objective of the strict liability concept is justice [17].

Other strengths of environmental law include the authority of the central government over the regional governments. It has become more explicit compared to the previous law. The procedure of permit process administration and the model of monitoring are the main objectives of the current environmental law. The inclusion of ecoregional and landscape approaches in environmental law enables better management. The reinforcement of civil, administrative, and criminal law also implement the strict liability concept. The environmental law also gives more authority for the Ministry.

Based on the description above, the environmental law, with its many strengths provides strategic opportunity to ensure effective management of the Leuser ecosystem area into Aceh Province. With the implementation of the strict liability concept and other strength, the crime offenders damaging in the environment by deforestation and degradation can be persecuted based on the current environmental law. In addition, efforts for conservation (Ayoo, 2008:550-564) to ensure the sustainable management of Leuser Ecosystem areas are supported by environmental law [18]. The current environmental law also motivates people to develop environmental movement as a part of a spiritual movement [19].

In addition, environmental law also provides an opportunity to apply the biocentrism principle. The current objectives of the law considering humans in the center position have shifted to a holistic position, i.e. all living things are related, and all species have intrinsic values. Humans do not have a unique role in the universe, and they do not have inherent values over other species or creatures. The second principle is self-realization, which involves the awareness or realization of life potential, aimed at establishing the principle of mutualism among all aspects of life [20]. With biocentrism principle, the environment management is not trapped in one situation, termed as Anthropocene. This situation shows how the earth has changed as an effort to be dominated and exploitatively managed by humans. Kotzé (2014:121-156) argued that "the term Anthropocene suggests that the Earth has now left its natural geological epoch, the present interglacial state called the Holocene. Human activities have become so pervasive and profound that they rival the great forces of

Nature and are pushing the Earth into planetary terra incognita. The Earth is rapidly moving into a less biologically diverse, less forested, much warmer, and probably wetter and stormier state" [21].

Another strength of the environmental law is that it motivates the development of integrated environmental management between the central and regional government, allowing authority share, which is in line with the decentralization. Sustainable development requires development organization and administration which adhere to the sustainability principle. Roy and Tisdell (1999:274-289) stated that sustainable development requires efforts to manage resources efficiently; therefore, conservation is an integral part of efficient resource management administration [22].

Finally, the objectives of environmental law implementation are to ensure the sustainability of the development, which is a human need for their existence, to implement green development as proposed by Megawai (2016:338-357) [23]. Megawai also argued that the implementation of green policy, one of which is the support from environmental law and commitment from leadership, can ensure the implementation of justice [23].

3.2. The effectiveness of environmental law on the management in the Leuser ecosystem area

Unfortunately, the effectiveness of environmental law in supporting the management of the Leuser ecosystem area has become a one-million-dollar question for many. It is evident from a lawsuit filed to the court by Wahana Lingkungan Hidup (Friends of the Earth) against a policy issued by the Regent of Aceh Tamiang, who approved a permit for a concrete manufacturer, Pabrik Tripa Semen Aceh, in the Leuser ecosystem area in May 2016 [24].

Based on the report issued by an environmental foundation, Yayasan Hutan Alam dan Lingkungan Aceh (HAkA), the disturbed peat area in the Leuser ecosystem area reached 627 Ha in January 2018. The quality degradation of peat area has impacted the lives of Sumatran Orangutan. It is estimated that Rawa Tripa, an area of 61,803 Ha in the west coast of the Province of Aceh, Indonesia, harbors approximately between 200 and 300 Sumatran Orangutans. This number is far below those in the 1990s, i.e., about 3,000 [25]. In one of the reports released by an environmental organization, i.e. Sumatran Orangutan Society, 80,316 ha forest was lost between 2008 and 2013. The highest intensity occurred between 2002 and 2008. The data were based on a careful analysis of satellite data released by NASA, revealed by a group of researchers led by Matt Hansen from the University of Maryland [26].

Based on the data presented above, environmental law has not been effectively implemented to support the effort to ensure the protection and management of the Leuser ecosystem area. The exploitation which caused damages in the area has continued to happen. If this condition persists, the Leuser ecosystem area with its high biodiversity will keep decreasing. This situation also results in negative implication on biodiversity in Leuser National Park, which is ecologically interconnected to the Leuser ecosystem area.

There are some weaknesses which cause the environmental law to lose its effectiveness in its implementation in the Leuser ecosystem area, and other similar areas. First, many policymakers in regional government perceived that development is independent of environment, ecology, and economy. The orientation on the economy over the environment is also one of the most debated areas in the implementation of government policies. There is an inconsistency implemented by the central and regional government. When they are confronted with economic incentive, they ignore the threats to the environment. On the other hand, governments always express their commitment and support to protect the environment. Such situation has been recorded by Samudro, Bloch, and Salim (2015:258-272) as what they called hegemony, where the central and regional governments implement monopoly aspect in utilizing the natural resource in which the environmental aspects are not considered [27].

Second, the strict liability concept, which is one of the strengths in environmental law, has not been used as the foundation for law enforcement. Law enforcement officials still work based on the standard process set by vicarious liability concept, where someone is held responsible for the actions or omissions of another person. Although community involvement is regulated in Article 26, point 2 of Law No. 32, 2009, which emphasizes the importance of information encouraging transparency, openness, comprehensiveness, and socialization prior to implementation, there is no explanation on what sort of information is considered comprehensive, transparent, and open. Third, Article 26 of Law No. 32, 2009, states that the community is allowed to file their concern against Environment Impact Analysis. However, the mechanism of filing the concern is not included in the law, which can reduce the rights of the community. Fourth, Article 14 of Law No. 32, 2009, regulates the preventive efforts for environment pollution and damages. In the same article, a new instrument is introduced, i.e. the Strategic Environmental Study. The study needs to be conducted by the central, regional, and district government to ensure that the development is synchronized with the sustainable development principle. However, unlike for Environment Impact Analysis document, there is no sanction in the law for failing to present this document [28].

Fifth, both central and regional governments, do not have a strong commitment to solving environmental problems based on previously conducted surveys. One of the surveys conducted by Sugeng Suryadi Syndicat in 2016 found that heads of regional governments were not concerned with the environment. Based on the survey results, 47% of the heads of the regional governments did not have much concern on the environment, 9% did not have a concern at all, 37% had some concern, and only 6.4% had much concern [29].

Sixth, the environmental law states that to recover the condition of the polluted or damaged environment, the central and regional governments need to provide a budget for environmental recovery. However, this regulation does not explain or address those who cause pollution or damage. This does not accommodate the principle of justice. Based on some cases in Indonesia, the parties which caused the pollution or damages were not persecuted for their irresponsible actions.

Seventh, Article 66 states that people struggling for a right to a proper and healthy environment may not be charged with a criminal or civil offence. In reality, in many cases, many of them became the suspects in the judge

verdict, so the non-prosecution warranty has not yet effectively implemented. Eighth, the efforts put by law reinforcement officials using coercive approach for environmental law has not been effective. The weak efforts to implement coercive approach make the environmental law lose its strategic strength. Himma (2016,593:626) believed that the implementation of coercive approach could make the environmental law effective [30].

Finally, environmental law has not been effectively implemented to support the effort to manage the environment in the Leuser ecosystem area. The continuous exploitation which led to damage in the area is a criminal offence to the environment (Francesco Maesa, 2018:1-25), while the conservation has not successfully protected or managed the environment [31]. This shows that environmental law has not played a significant role in preventing exploitation in the Leuser ecosystem area.

4. CONCLUSION

The environmental law plays a critical and strategic role in preventing exploitation, which can cause damages to the environment in areas with biodiversities that have an essential function for ecology. In addition, the efforts to support conservation will be strategic when the environmental law consists of regulations to manage biodiversity areas sustainably.

Unfortunately, environmental law in Indonesia has not successfully protected and managed biodiversity areas effectively, such as the Leuser ecosystem area. In other words, environmental law has not adequately protected this national strategic area. This is very surprising because the strengths of the current environmental law, such as the possibility to implement strict liability concept that makes the law enforcement easier, are expected to support the sustainable management of Leuser ecosystem area in the Province of Aceh.

Therefore, it is recommended that the government and legislative assembly revise the environmental law to eliminate its weaknesses to strengthen its implementation in Indonesia. In addition, the government and legislative assembly in Aceh, as the province with special autonomy, can establish regulations to support the implementation of the environmental law, especially in supporting the management of biodiversity areas, such as Leuser ecosystem area.

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