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Embodying Ecological Policy in Defending the Leuser Ecosystem Area for Sustaining Collective Life

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Abstract

*This work is aimed at exploring an appropriate strategy and approach in embodying the ecological policy in defending the Leuser ecosystem area for maintaining the sustainability of collective life. This is highly relevant in light of the Leuser ecosystem functioning as the world lung that supplies and guarantees the availability of the collective sources, such as biodiversity, climate stability, water and so forth. This ecosystem is increasingly pivotal when we found that more than 1,7 million hectares of the Leuser ecosystems had already been destructed. The destruction stemmed from the wrong policy or paradoxical policy of the government, blunder regulation in the form of conflicted norms, legal vacuum, and blurred norms in regulating the Leuser ecosystem. To visualize the above ideas, this study will apply the normative legal research for coherencing the conflicted norms and empirical legal research for measuring the impact of the implementation of the related regulation. In the end, this work will offers a coherence approach in solving the conflicted norms, making relevant laws in addressing the legal vacuum, and reinterpreting the blurred norms in the management and protection of the Leuser ecosystems and the maintenance of sustainability of collective life .****

1. Introduction

The term Leuser Ecosystem Area (LEA) is regulated in the Ministerial Decree No. 227/1995. This Ministerial Decree grants Leuser Ecosystem Area Foundation of Indonesia (LEAFI) the rights to manage national parks, protected forests and production forests, for seven years¹. The supervision of LEA management is carried out by the head of the Leuser Mount National Park (LMNP), Regional Office of Forestry and the Ministry of Forestry. In a further development, LEA is normatively defined as a natural area integrated with the landscape elements covering the special characteristics of flora and fauna, supporting the balance of habitat, biodiversity and other special factors and forming a distinctive environment called Leuser Ecosystem². LEA is a vast conservation area that reaches 2.6 million hectares of its territory, stretching and crossing the two provinces of Aceh and North Sumatra. LEA plays its important role to maintain not only the stability of the global climate but also the sustainability of collective life as it contains biodiversity³ and germplasm so massively.⁴

¹ See: <https://suerdirantau.wordpress.com>

² See: The Presidential Decree No. 33/1998. According to this decree, LEA covers areas of 1.79 million ha and is managed through the cooperation Agreement between the Central Government, the Ministry of Forestry, and Indonesian Leuser Institute (ILI). The cooperation includes a number of activities such as protection, preservation, restoration of area function and sustainable utilization. Unfortunately, the cooperation agreement is never realized although the activities continue to be run by ILI as the management of LEA

³ In Southeast Asia, forest is considered as the ultimate place that has sufficient size and quality to maintain the population of endangered species, including tigers, orangutans, rhinos, elephants, and leopards. With two mountains and a variety of habitats, Leuser has many of the most important ecological functions, one of which is to provide a constant water supply to the surrounding area and regulate the local climate.

⁴ Geographically, the Leuser Ecosystem is located in two most northern provinces of Sumatra (Aceh and North Sumatra), with an area of 2.6 million hectares containing very rich biodiversity. This ecosystem stretches from the eastern and western lowlands to the Bukit Barisan Mountains whose peak is Leuser Mount. This area covers the conservation site of Leuser Mount National Park, a protected and cultivated forest range. 80% of this area is located in NAD as mentioned in the Decree of Ministry of Forestry No. 190/Kpts-II/2001. The width of forest and other land areas are ± 2,255,577 Ha. This site encompasses 13 districts in Nanggroe Aceh Darussalam (NAD) including West Aceh, Nagan Raya, Southwest Aceh, South Aceh, Aceh Singkil, Subulussalam, Southeast Aceh, Gayo Lues, Central Aceh, Bener Meriah, North Aceh, East Aceh and Aceh Tamiang. The data collected through a remote sensing method called LANDSAT (USGS/NASA), i.e. satellite image interpretation, showed that in early 2005 the width of protected forests in LEA was 1.982 million hectares. However, the data in 2009 showed that the extent of deforestation had reduced the area into 1.946 million hectares. See: greenjournalist.net. Normatively, Leuser Mount National Park (792 675 ha) is established through the Decree of Minister of Forestry on

Over the years, LEA provides ecological functions such as water supply, protector of landslides, droughts and floods⁵, and climate controls. No doubt LEA has provided enormous benefits to millions of people who live in the vicinity⁶.

Although LEA has a significant role, locally, nationally, regionally and globally, it faces obstacles and challenges pertaining to the issue of sustainable conservation and utilization of the area. Many parties appear to have conflicting interests (diametrical⁷ interests) in the area, especially in the utilization of forest products, such as wood, rattan, wildlife, plantation, and agriculture.

After the borderlines of LEA were arranged, the Decree of Forestry Minister No. 190/200 endorsed LEA's borderline of 2,255,577 hectares in Nanggroe Aceh Darussalam (NAD) was issued. In the meantime, LEA of North Sumatra that covers 394,294 hectares was approved by the Decree of Forestry Minister No. 193/2002. With the publications of these decrees, the total areas of present LEA become 2,639,871 hectares. These two decrees mention that the area of Leuser Mount National Park in NAD becomes 602,582 ha and that of North Sumatra is 226,903 hectares. With reference to the Decree of Forestry Minister No. 276/Kpts-II/997, the width of National Park area now becomes 1,094,692 ha. Here lies a significant difference.

Although efforts to conserve ecosystems, species and genetics have been done, the Indonesia laws do not recognize "Ecosystem" as a conservation area. The laws divide conservation areas into nature sanctuary (nature and wildlife reserves) and natural preservation area (national park, forest park and hunting ground). The release of the ministerial and presidential decrees concerning the Leuser Ecosystem Area does not automatically make the above area become a conservation zone. Thus, its protection status still follows the term referred to in the existing definition of ecosystems. This leads to activities that could damage the ecosystem. Such activities run as usual because the regulations cannot touch them. The regulations also cannot take legal action against the perpetrators although they have caused much destruction to the environment. Currently, about 30 percent of the total 2.6 million hectares in the Leuser area, NAD and North Sumatra was heavily damaged by illegal logging and forest encroachment. Thus, it can be figured out that the damage in this area will continually be expanded because previously the damage was calculated only 10 percent. In addition to the protected forest area, the damage also hit the Leuser Mount National Park covering 793 thousand hectares of core area.

+The legal problem above was even more worsened by government's paradoxical policies. This can be seen from the governmental policy concerning the idea of developing "Ladia Galaska"⁸. On the one hand, the government wanted to rehabilitate and conserve the Leuser area. On the other hand the government also allows the development of Ladia Galaska project that connects Aceh and other parts of Sumatra (known as trans-Sumatra). This by-pass project did not run smoothly⁹.

May 23, 1997, through the publication of Ministerial Decree of Forestry No. 276/Kpts-VI/1997. This decree is strengthened by the Presidential Decree No. 33 of 1998 on the Management of Leuser Ecosystem. See: Wikipedia.

⁵Other functions include the prevention of erosion and floods, pest prevention, carbon absorption (to regulate the global climate), the natural beauty and spectacular biodiversity (for tourism), hydropower potentials, germplasm (for horticulture), pollination of important commercial crops, and filtration airborne dust (which creates soil fertility).

⁶This Ecosystem is the largest undisturbed sanctuary of Malesian rainforest in the world. Leuser is also a rain forest that has a variety of well known animals in the science world, such as species of mammals, birds, reptiles, fish, invertebrates, plants and other organisms. Leuser also has the highest number of fauna in the region. This ecosystem is a sanctuary for 105 species of mammals, 382 species of birds and at least 95 species of reptiles and amphibians. All of these represent 54% of the terrestrial fauna of Sumatra. See: Wikipedia

⁷LEA which ideally functions as protected forests and conservation areas is widely used for plantations, timber concessions, community forests and settlements. Normatively, LEA functions more or less as a forest management area run jointly between Indonesian Leuser Foundation (ILF) and the Government. It is not an administrative area of conservation. Conservation areas in LEA like LMNP and Wildlife Rawa Singkil are still managed by the Center for LMNP and Nature Conservation Agency (NCA) as a technical unit within LEA, as regulated by the Law No. 5/1990 Article 16 and 34.

⁸Ladia Galaska road project is planned to connect a number of areas, such as Meulaboh, Jeuram, Takengon, Blangkejeren, Panaron, to Perlak in the Province of Nanggroe Aceh Darussalam (NAD). The project aims to open isolated communities in the west coast of Aceh and improve the economy of the people in the east coast (Malaka Strait).

⁹The disagreement regarding the road construction is a major trigger of conflict. The local government, especially that of NAD, stated that the construction of this road was needed to open access for people in Aceh living in the west coast to the east coast of economic life. In contrast, Non-Governmental Organizations (NGOs) that are concerned with the environment request that this project be cancelled. The road construction will eventually cut through the protected areas of Leuser Mount National Park (LMNP), including the hunting parks and wildlife reserve. The NGOs were of the opinion that the road construction will impact on the environment, particularly ecosystems in LMNP.

In contrast, it surely brought about more severe impacts on the environment¹⁰. So far, the government³ NAD has been considered to have passed the law that does not save LEA but worsen³ the existing situation. The Law No. 41 of 1999 and the Law No. 32 of 2004 on Regional Government and the Constitutional Court decision No. 35 of 2012 on the rights of indigenous peoples have created dual authority in the forestry management. This leads to confusion pertaining to which institution is most authorized to manage the Leuser Ecosystem in Aceh province at present. The Government of NAD is considered to be very unrestricting in granting the transfer of forest lands to plantations, agriculture and mining sites. For instance, the data from the Provincial Office of Administrative Authorization in NAD show that in 2008 201 companies received the right to use land and plantation sites. The concession area covered 540,839,955 acres or 9.42% of total Aceh forests¹¹.

2. Chaotic Distribution of Authority in Regulating and Maintaining the Leuser Ecosystems Areas

The chaos in the management of the Leuser was triggered by the incoherence of interests, i.e. the interest of the authorities and local government policies of Nanggroe Aceh Darussalam. The government policies represent the interests of the central government and that of international. The evidence for this can be seen from various policies released by NAD local government that allow Aceh's Leuser forest to be used as plantations, timber concessions and residential areas. This policy is clearly in contrast with the interests of national and international institutions, which determine Leuser as conservation and protected area so that the sustainability of collective life¹² in the area can be maintained. The situation is even worsened by the unclear cut of territorial authority between Aceh's government and that of the Provincial Government of North Sumatra¹³.

2.1. Diametrical Interests in Controlling and Regulating the LEA

The diametrical interest is reflected by the emergence of variety of interests that contradict with the management and utilization of the Leuser region. Three interests identified for this are: (i) the political-military interests; (ii) the economic interests of the community; and (iii) the importance of the environment. The emergence of political-military interests was triggered by the government policy that determined Aceh as a Military Operation Zone (MOZ). This policy undoubtedly suppressed the access of local communities in Aceh to economic and social activities, such as education, health and politics.

As the reaction to this policy, the Acehnese expelled migrants or descendants of mixed Acehnese. In response to such a counterproductive backlash, the government used the Leuser ecosystem area (LEA) as a settlement for those who were displaced from their homeland and their own homes.

¹⁰The environmental impact is basically a change in environmental components, both physically and biologically as a logical consequence (result) of the activity or process (either naturally or artificially) in a particular area and its surroundings. When the project construction is allowed, floods, landslides, droughts, and the extinction of flora and fauna become inevitable. Based on the record of The Indonesian Forum for Environment (known as WALHI) Aceh, in 2014 there was a wide variety of ecological disaster around LEA, ranging from landslides in the area Gayo Lues Takengon, to the elephant's occupation of residential area in Central Aceh. It was also reported that fires happened in Gayo Lues and droughts and smog happened in Singkil. These ecological disasters took place in the areas that belong to LEA. The encroachment cases also happened in Gayo Lues. Forest destruction and illegal logging in Gunung Leuser National Park (LMNP) were found to become the main cause of floods. More interestingly, one of the causes of forest destruction in the LMNP as stated by the Executive Director of Forum for the Environment (detik.com 4/11), was the construction of Ladia Galaska road project across LMNP. The road project that stretches from the Indian Ocean-Gayo to Alas-waterway (Ladia Galaska) was the main cause of forest destruction. This eventually triggered flash floods. The large number of illegal logs drifted by the floods was the evidence of how the Ladia Galaska Project played a major role in damaging LMNP. Logically, illegal loggers would not let flash floods carried away big logs. They would undoubtedly transport the logs for sale. It was found out that flash floods carried a lot of large size timbers coming along with mud and dirt. Possibly those timbers came from a large wood stocks made by illegal loggers. However, the timbers were possibly resulted from the ground clearing made by Ladia Galaska project. Despite logical explanations for Ladia Galaska, clearly, the presence of bypass in LMNP has sparked controversy and accelerated the damage of LMNP.

¹¹See: theglobejournal.com.

¹²This international interest appeared due to the Helsinki Agreement between the Government of Indonesia and the Free Aceh Movement. This resulted in handing over full management of the Leuser region to NAD through the publication of Article 150, the Law No. 11 of 2006. This article states, "The government (of Indonesia) is prepared to give its authority to the Government of NAD to manage the Leuser Ecosystem located in NAD, encompassing the protection, conservation, preservation, rehabilitation and utilization of areal functions the best possible". The Law of Nature Conservation was then interpreted to have given a huge authority to the Government of NAD to manage forest areas in NAD including LEA. Consequently, the acting Governor of NAD published Governor Regulation No. 52 of 2006 on the Establishment of Leuser Ecosystem Management Agency. The regulation was issued by the acting governor of NAD hurriedly without waiting for the result of the election of a new governor and consultation with Nature Conservation Agency located in LEA of NAD.

¹³It was obvious that this uncertainty will eventually trigger a horizontal conflict as a result of the vague limits of authorities in the management and utilization of forest areas.

This policy clearly reflects the political-military decision intended to preserve the national unity and stability. The above explanation signifies that the political-military policy has misappropriated the environmental policy, i.e. assigning and utilizing Leuser Ecosystem as conservation areas and protected forests.

Furthermore, the economic interest in the utilization of LEA was stimulated by the government's desire to increase foreign exchange earnings and revenues. Unfortunately, the local government of Aceh did not employ a creative approach for the purpose, such as improving people's skills in farming, breeding, and developing a culture-based creative economy. Instead, the government of Aceh Darussalam preferred to use an instant shortcut approach, i.e. by converting most of LEA sites into plantation and residential areas, and developing an infrastructure for Ladia Galaska project. In addition, the local government of Nanggroe Aceh Darussalan also issued permits for concessions of timber. This resulted in the forest tree logging that involved both individual communities and legal entities, either legally or illegally. The policy had strengthened the instant destruction of Leuser forests.

In regard to environmental interests, currently the international communities have been working with the Indonesian government to conserve the Leuser forest area. These interests are embodied through the establishment of Indonesian Leuser Foundation (ILF), protected by the Presidential Decree No 33/1998 on the Management of Leuser Ecosystem (LEA)¹⁴. This aims to preserve and conserve the Leuser area¹⁵. In order to support conservation programs, ILF involved the community in securing and maintaining LEA from the destruction caused by those who live in LEA and those who come from outside LEA. ILF efforts are aimed at raising public awareness concerning the importance role of forests in ensuring the continuity of collective life¹⁶. By analyzing various conflicting interests, it is expected that the government would be able to draw the line of coherence of all these interests and decide which interests provide highest benefits for the public.

2.2. Diametrical Norms in Regulating the LEA

The diametrical norms arise because there is a lack of coherence among norms in controlling various authorities and interests as regard to the management and utilization of LEA. As mentioned above, many agencies are equipped with their own authorities and their own legal bases in the management and utilization of LEA. For example, the Presidential Decree No.33 of 1998 authorized LIF to manage the conservation of LEA. In the same vein, the Law No. 11, 2006, authorized NAD to protect, conserve, rehabilitate and utilize LEA area maximally. This resulted in a conflict of normative dualism and authorities in the management of LEA. Conflicts were increasingly visible when LIF required and selected two areas, namely South Aceh and Rawa Singkil, as LEA¹⁷ conservation areas. The government of NAD planned to use both areas as plantation and agricultural areas. The legal protection for this was applied fundamentally and constitutionally¹⁸ to both subject and object of an environmental management.

¹⁴This Presidential Decree serves as the legal basis for the presence of LIF as well as the legal instrument strengthening the role and involvement of the Leuser International Foundation (LIF) in the management and utilization of LEA. In detail, LIF can play its role and use its rights to remind the Government of Aceh to control LEA status as conservation area and ecosystem balancing. It was obvious that this uncertainty will eventually trigger a horizontal conflict as a result of the vague limits of authorities in the management and utilization of forest areas.

¹⁵Leuser International Foundation was established on July 23, 1994 based on Notarial Deed released by Chufran Hamal, SH No. 75. The government assigns YLI as an institution that assists the government to implement the management of Leuser Ecosystem for 30 years on the start of its enactment. Operationally Leuser International Foundation (LIF) is protected by the Presidential Decree No. 33/1998 on the Management of the Leuser Ecosystem (LEA).

¹⁶The main topics disseminated by LIF to the public, among other things, are: (i) LEA contains unique flora and fauna; (ii) LEA is a core medium for biological sustainability of natural resources; (iii) LEA is an important medium for the development of tourism, recreation and hunting tours, etc; (iv) LEA functions as a national asset that covers forests, environments, customs and cultures; (v) The existence of LEA is inseparable from the policy of regional autonomy, particularly the authority of environmental management, etc.

¹⁷This arrangement was made based on the Community Livelihoods Conservation Agreement (CLCA). Under this CLCA, villagers were engaged in replanting native species (reforestation) on 400 hectares: 200 ha of which belongs to forest corridor and 100 ha belong to community forests in each village. In return, they receive training in the field of reforestation, nursery management and utilization of public forests. ILF project also provides training in the protection of high value conservation forests, monitoring and rule enforcement, and the lessening of human-wildlife conflict.

¹⁸The protection for the subject and object of law has actually been embodied in the Law No. 23 of 1997 on the Forest Area Protection. To preserve and develop a harmonious and balanced living environment, the management of environment should be based on the ideal state of law that beomes the spirit of the Law of Living Environment Management.

These conflicts continued when LIF involved two areas, namely South Aceh and Rawa Singkil, as LEA's conservation sites because the government of NAD planned both areas as plantation and agricultural sites. The legal protection is given to not only the subject but also the object of an environmental management environment based on fundamental and constitutional values .

To exercise its powers in the management of LEA, the Governor of NAD has issued several regulations, such as the Regulation No. 19 Year 2013 on Spatial and Regional Planning and Regulation No. 5 Year 2014¹⁹ to support LEA authorities. However, in its development, the Regulation No.5 2014 was sued by Indonesian Forum for Environment (IFE) through judicial review filed to the Supreme Court. In its complaint, IFE claimed that the decree had violated a number of laws and regulations on it, specifically the Law No 32 of 2004 on Regional Government and the Law No. 11 of 2006 on the Governance of Aceh.²⁰

Structurally, the decision made by the Supreme Court on the judicial review has changed the authority of Leuser area management. According to the Regulation of Ministry of Forestry No: P.03 /Menhut-II/2007, LMNP is managed by the Technical Implementation Unit of the Directorate General of Forest Protection and Nature Conservation of the Ministry of Forestry, i.e. the management of Gunung Leuser National Park Agency (echelon II) situated in Medan.

In response to the shift of authority in the management of the Leuser forest areas, the government claimed that in accordance with the mandate of the Law No. 11 In 2006, Leuser Ecosystem was under its jurisdiction. Thus, the authority to manage Leuser area remained under the control of the provincial government of Nanggroe Aceh Darussalam. To validate the regulation, therefore, the government was just required to revise and reapprove it.

The above stance is justified since the Government of Aceh Darussalam has signed binding agreements on carbon trading in the Leuser ecosystem with the third parties. This agreement of investment — known as Leuser Ecosystem Investment, Licensing and Benefit Sharing Agreement — is made between the Forest Landscape Development Limited (FLD), Leuser Ecosystem Management Agency and the provincial government of Aceh.²¹

2.3. The Leuser Ecosystems Area (LEA) in Danger

Due to conflicts of norms and interests, legal uncertainty occurs in the management and utilization of LEA. Many of the economic activities were done in the form of exploitation of LEA with no certain norms. This would lead to a serious threat to LEA sustainability. This threat is commonly fueled by economic activities that tend to take a direction to an instant short cut. This is visible from the efforts of various parties to convert agricultural land (owned by the State, corporate/company and the community), to excavate limestone and other similar small-scale minings, to assist thousands of internally displaced families (IDP), to control the growth of enclave, illegal logging, encroachment, illegal sawmill, furnishings/furniture business, lumber mills, the opening of new road (road network development of "Ladia Galaska") and to prevent animal hunting, the use of dynamite, electric shock, potassium and other dangerous toxins for fishing and other many more dangerous threats that eventually endanger the environmental sustainability.²²

¹⁹Governor's regulation on Procedures and requirements of Utilizing Leuser Ecosystem Area of NAD

²⁰This contradiction is shown particularly in the Provisions of Article 149 that requires the Government of Nanggroe Aceh Darussalam to: (i) manage the environment in an integrated manner by taking into account the spatial, protecting biological, non-biological and artificial natural resources conservation of natural resources and their ecosystems, cultural heritage, biodiversity, the rights of indigenous people and their maximum welfares; (ii) protect, maintain, and preserve National Parks and protected areas; (iii) manage and protect biodiversity and ecology in the protected areas; (iv) involve qualified non-governmental organizations in the management and protection of the living environment; and (v) resolve disputes on living environments either through litigation or non-litigation efforts. All of these obligations should be implemented in accordance with the legislation.

²¹Under this agreement, FLD will conduct a number of long-term investment activities with the value of US \$ 300 million. The initiative is called Leuser Ecosystem Project that was carried out through a series of activities. Essentially, FLD would establish various environment-business enterprises based on environment-friendly concepts inside and outside LEA. These activities, including rehabilitation, were undertaken to reduce deforestation and forest degradation in LEA. FLD is an exclusive partner for carbon rights and similar activities.

²²Another threat is the deforestation for oil palm plantation sites. This happened in Aceh Tamiang, Aceh Selatan (Rawa Kluet) and Rawa Singkil (District of Rawa Singkil) .Illegal logging in Gunung Leuser National Park Besitang area, Langkat, was calculated to reach Rp 3.6 trillion , The loss was calculated based on the destruction of extensive forest at Leuser Mount National Park in Besitang area. It was estimated to reach more than 21,000 hectares. The labor forces employed for the illegal logging included the refugees from Aceh who still resided in the LMNP area. Currently there are about 700 heads of refugee families from Aceh who settled in the region LMNP of Besitang

The government efforts to develop non-agricultural sectors in sub-districts of the buffer zone of Leuser ecosystem seem to be limited. This limitation can be seen in the policy developed by the government of Aceh Province, especially in the districts of South Aceh Selatan and Southeast Aceh where the Leuser ecosystem is located. These two districts are directed as the development and expansion of agricultural estates. All these activities clearly threaten the sustainability of LEA as the living buffer zones, climate stability, and so forth.

3. *Embodying Ecological Policy in Defending the Leuser Ecosystems Areas for Sustaining Collective Life*

To embody the ecological policy in the development, the government shall identify and assign values that can ensure integrity and sustainability of collective life. These values can be found in the constitutional foundation of the nation, such as integrity and sustainability²³. Both values are called meta-values that assign positive obligation to the State to synchronize policies coherently and all other products of legislation under the Constitution. On the juridical-normative basis, all laws, whether they are executive or legislative policies, should consider integrity and sustainability as the foundation for formulating or issuing regulations.

The implication of such a legal rationality requires all public authorities, including the Minister, the Governor or the heads of districts, prioritize integrity as the basic indicator for each policy. For example, when the public official issues a policy, he/she should put integrity and sustainability as the key consideration for legal condition of a policy or regulation. Based on these premises, the governor's policy (in the form of provincial regulation) pertaining to the conversion of forests into farmlands and plantations become invalid.

Normatively, the invalidation of laws or regulations contrary to the values of integrity and sustainability can be described as follows: when two laws are conflicting with each other, we should observe which law and regulation conflicts with the value of integrity. The validity of regulation is seen not only from its technical degree, level of formality and the institutional authority that issues the law or regulation, but also its substantive degree, i.e. the integrity and sustainability. If two or more conflicting rules or regulations happen, we should observe which of them has meta-values closest to the integrity and sustainability.²⁴

With this approach, the government can ensure that the embodiment of the values of integrity will maintain the continuity of LEA in supporting the integrity and sustainability of collective life.

4. *Constructing Ecological Values and Interest in the Public Policy*

LMNP was closely connected with its surrounding area after it was designated as LEA. LMNP is located in the district of Southeast Aceh, Aceh province and Langkat District of North Sumatra province. This national park, the third largest park in Indonesia with an area of 863,615 hectares, is protected for the nature conservation. This site unites a number of wildlife areas, forests and protected forests and has long been relied upon as a reservoir that regulates water and shelters a variety of flora and fauna and their germplasm. Until now this area has not undergone interference and destruction. Here lie many different kinds of plants and animals that are classified as endangered species. The formal judicial recognition of the National Park was defined in Article 29 paragraph (1) of the Law No. 5 of 1990. The law states that nature conservation area covers national parks, forest parks and natural park tourism.

LMNP is a national park, which serves as protection of life support systems and the preservation of diversity of plants and animals utilized sustainably. LMNP can be used for the purposes of scientific research, education, support farming, culture and nature. Research related to the protection of the National Park show that efforts for preservation of the unique megafauna and the biodiversity cannot be guaranteed. This statement shows that problem persists concerning non-functioning of LMNP in protecting the diversity of flora and fauna. In order to protect natural resources and ecosystems, the government has worked with Leuser International Foundation (LIF) to manage the area. LIF may form an implementing agency to run tourism industry, recreation and hunting tourism, and to support the development of conservation and LEA. The development program of Leuser Ecosystem is designed to develop a national park that can be used in accordance with its purposes and objectives, i.e. to provide protection, development and utilization of conservation areas. LMNP greatly save natural resource potential through the creation of a rational integrity for sustainable development and conservation programs.

²³See: The 1945 Constitution of the Republic of Indonesia, Article 28.

²⁴Personal communication and consultation with Hayyan ul Haq, (lecturer in legal philosophy and legal theory in Mataram University and various law faculties in Indonesia) on legal validity from August to September 2015).

The management of LEA stipulated in the Presidential Decree No.33 of 1998, particularly Article 1 paragraph 3, introduces two terms, (1) nature reserves and (2) conservation areas. Normatively, the decree poses a dilemma because the provisions of Article 29 of the Law No 5 of 1990 contains only one term, i.e. nature conservation area. It is a juridical obstacle that hinders the assignment of the area, particularly related to various types of forests defined in Article 1 point 10 and 11, the Law of No 41 of 1999. The emerging problem is whether LMNP belongs to a natural conservation forest area or a natural sanctuary; or it belongs to both. When those legal matters are examined consistently, LMNP should be included as a forest conservation category that owns certain characteristics and functions as stated in the Law of No. 5 of 1990.

So far, the government's attention to the forestry management can be looked at from the renewal of forestry laws. This signifies that the government is trying to see the real dynamic condition of the people so that the legal aspirations can be accommodated according to the current needs.

4.1. Coherencing the diametrical values and interests in public policy for defending the Leuser ecosystems

The transfer of authority in forestry management based on the spirit of decentralization is recognized by Article 66 of the Law No. 41 of 1999. This transfer of authority is not totally but partially. It aims to improve the effectiveness of forest tenure within the context of local autonomy. In the framework of decentralization, the forest management and its utilization can be carried out by indigenous peoples. In this regard, the judicial public policy-making should be able to determine which group of indigenous people is entitled to utilize forests. The Law of Forestry states that only indigenous peoples whose existence is still recognized are allowed to collect forest products for their daily needs. They manage forests based on the customary law and receive empowerment to improve their welfare.

Conversely, the rights of indigenous people to forest may also pose an environmental dilemma, i.e. the clash of economic needs of the people with the spirit of ecology maintenance. Deforestation process in LEA at present poses a threat to the sustainability of wood and water springs. Therefore, the decentralization of forest management requires an integrated process that prevents the emergence of environmental problems so that the development of the sites can run sustainably.

The deductive description above signifies that the management of Environment Protection area and LEA forests, which covers ecology and legal aspects of natural resources, has not met the ultimate goals desired by the legislation. Factors causing such deviations need to be sought. Moreover, the failure of applying decentralization principles in the public policy-making and unfavorable relationship between the government and indigenous peoples also contributed to problems experienced by Leuser Ecosystem management.

When the Law of No. 41 of 1999, as the replacement of the Law No 5 of 1967, is looked at closely, in fact, its spirit is still focused on the centralization of power. The centralization of power is largely seen in the amount of authority granted to government legislation, such as (1) the right to organize and manage everything related to forests, forest areas and forestry products and (2) the rights to determine whether a particular area is forest or non-forest site; and (2) to arrange and establish legal relations between people, forests, legal acts concerning forestry matters.

The authority abovementioned can be put into two categories in terms of (1) a legal object and (2) a legal subject. Pertaining to the legal object, the government has the authority to regulate and manage three things: (1) the forest, (2) the forest area and (3) the forest product. In terms of legal subject, the government has the authority to regulate and define the legal relationship (*rechtshouding*) between people (both private and legal entities) and the three things above, i.e. forest, the forest area and the forest product. In addition to the two authorities, the government also has the authority to establish a change of legal object, i.e. converting a forest area into non-forest area.

In establishing forest areas, the government must first make inventory of forests to obtain comprehensive data and information about their resources, natural potentials and environments. The establishment of these forests needs to be aligned with the local spatial plan. This aims to provide legal certainty for the areas.

Furthermore, the government also has the authority to develop a forest management that covers long, medium and short term plans after various environmental factors and social conditions of the community are put into consideration. The preparation of this forest management plan is based on the results of forest governance made by every forest management unit in view of the aspiration, participation, cultural values of the society and environmental conditions.

To control over the State's forests, the government has an obligation to attend the rights of indigenous forest communities. The government's legal authority is applicable under three conditions: (1) when the rights of indigenous people still exist; (2) when the existence of the rights of indigenous forest communities is recognized; (2) when the rights of indigenous forest communities are not contrary to the national interests. When the rights of indigenous peoples no longer exist, the rights of management of community forests are returned to the government.

However, the same is not true when the authority of forest management is viewed from the perspective of regional autonomy. Prior to the enactment of the Law No. 41 of 1999, the State handed over the forestry regulations to the local government, such as the Government Regulation No. 62 of 1998 concerning the Granting of Some Forestry Matters to Regions. This government regulation has not been repealed and is still valid until now. The transfer of government matters in the forestry sector to the regions includes the entrustment of State's matters to the provincial government and local government district/city. The transfer of State's matters to the provincial forestry sector encompasses forest park management and the structuring of forest boundaries, whereas the district/city government receives 10 forestry mandates concerning: (1) reforestation and soil and water conservation; (2) production of natural silk; (3) increasing the denseness of vegetation; (4) management of forests/community forest; (5) management of protected areas; (6) forestry extension; (7) management of non-timber forest products; (8) traditional poaching of unprotected wild animals in the hunting ground; (9) the protection of forests and (10) skills training in the field of forestry for the community.

After the Law of No. 41 of 1999 applied, Article 66 ordained that in the implementation of forestry management the State should submit some of its authorities to local governments. This aims to improve effective utilization of forest for the development of local autonomy. The provisions of this authority transfer are set out in government regulations. The transfer of forestry rights from the State to local governments, as regulated by the Law No. 41 of 1999, shows that indeed there is centralization of power. This standpoint also needs to be questioned in connection with the subsequent production of government regulations, i.e. whether the legislation is purely an initiative from the forestry Ministry or that of the Minister of Home Affairs; whether the government regulation is still applicable after the release of PP 25 of 2000 or not. Viewed from normative juridical stance, the government regulations referred to in Article 66 of the Law No. 41 of 1999 are no longer required because substantively this would generate overlapping regulations.

How was the position of local governments in the forestry like after the Law No. 22 of 1999 was issued? From the formal judicial point of view, the Law No. 22 of 1999 does not recognize a specific term of forestry. Instead, phrases like "National resources" and "environmental sustainability" are used. Forestry is part of national resources whose environmental sustainability should be well preserved. The fiscal balance transfer that becomes a source of regional income is obtained from natural resources in the regions and forestry revenue is one of them.

The arrangement of authority specified in the legislation of local autonomy explicitly explains the authority of the central government and local governments in fiscal balance transfers as regulated in the Law No. 25 of 1999. Article 6 affirms that the balance of revenues from a number of natural resources — such as forestry sectors, general development of the sectors and fishery sectors — is divided into two parts, i.e. 20% for the central government and 80% for the regions.

4.2. Making new law for addressing the legal vacuum in maintaining the leuser ecosystems

The direction of environmental and natural resources development shows that balancing and harmonizing ecological systems viewed from social, economic and cultural perspectives are extremely fundamental. If any of these systems is ignored, other systems will be affected. Therefore, when the development merely aims to prioritize economic benefits and leaves out or ignores ecological, social and cultural functions, complex issues will appear eventually. The issues may bring about the destruction of ecosystems, environmental pollution and social conflicts. These three problems are no longer a future threat, but they have already happened now and they are surely moving toward detrimental magnitudes. It is therefore necessary to balance the aforementioned functions by uniting various operational policy tools, such as laws, government regulations and other implementing regulations aimed for institutional and program developments.

So far, the agreed commitments made by the government are still dynamic in nature. To achieve the harmony, many parties suggest that decentralization be seriously developed and thus public participation will be accommodated. However, this issue has not become a major concern yet.

Decentralization and community participation in the management of the conservation areas are mainly focused on the examination of the role of the community, but the community participation is not clearly elaborated yet. In the same vein, the direction of decentralized management in the conservation areas thus far has not materialized explicitly.

The absence of direction in the development of decentralization that pertains to the management of protected areas is visible not only in terms of environment plans, but also in the general policy of "regional development". The direction of development shows that the government did not respond to the problems that existed in the management of natural resources, particularly the management of protected areas that were increasingly threatened. For this reason, therefore, it is necessary to make fundamental changes so that the threat of forest fires in the future, for example, can be anticipated.

In various occasions, the government tries to show that the policy of environment management has been developed incessantly. Various policies that seek to protect conservation areas have been produced. However, these policies seem to prioritize more economic outcomes rather than conservation efforts. The Minister of Forestry may issue a regulation that does not allow companies that conduct mining exploration in the protected forests, but paradoxically other ministers, such as the Minister of Mines and Energy, issue a permit to conduct mining exploration in the same protected forests for the sake of improving the country's economy.

It is necessary to underline and scrutinize various statements made by the government officials, even the President, whether their statement is a political or legal. From the point of legal power, their statements may be more political with no legal basis at all. Their statement even may be in conflict with the existing provisions. The example for this is the Law No. 5 of 1990 on Conservation of Natural Resources and Ecosystems. This Law indeed prohibits any exploration activities in the national park. However, the fact shows that many people still violate the law.

Forest is a natural resource; it is a gift from God Almighty. It has an important function for regulating water management, preventing floods and erosion, maintaining soil fertility and conserving the environment. Thus, it can be utilized sustainably. In addition to the mandate of Article 15, the development of government's regulation policy on the Protection of Forests is produced based on the considerations above.

Further, the government regulation that pertains to forests protection provides procedures for protecting the destruction of forest reserves, protected regions, forest soils, and forest products. The goal of forest protection is to preserve the forests and maintain its functions. For these reasons, necessary efforts shall be taken to prevent and limit the damage. Although this regulation contains rules concerning the protection of forests, it does not include regulations pertaining to the protection of protected forests or protection of natural sanctuary, such as Nature Reserves, Wildlife, forest or tourism forests (Tourist Park and Hunting Park). However, the regulation indeed contains provisions of criminal sanctions for those who work or occupy the protected area without the consent from the Minister of Forestry.

The government regulations also did not provide clear definition of the forest or forest protection. Instead, the explanation of the regulation outlined the definition of concession holders and the collection of forest products. Additionally, the Government Regulation No. 28 of 1985 authorized competent agencies, approved by the Minister of Forestry, to conduct exploration and exploitation activities to take excavated materials from the forest areas or forest reserves. The provision of such opportunities enabled the third parties to explore and exploit forest areas. However, due to unclear definition, the protected forest areas, such as the Nature Reserves and Parks Tourism, are susceptible to destruction.

Furthermore, the government regulation on the Protection of Forests contained controversial provisions of criminal sanctions, which should have been regulated in the Basic Forestry Law. This regulation also did not include the Law No. 4 of 1982, which was still valid as one of the legislation references then. In fact, the Law No. 4 of 1982 has provided a definition of living environment, which contains unity of space comprising of all entities, potencies, conditions, and living things, including human beings and their behaviors.

All of these may affect the continuity of livelihood, the welfare of human beings and other living things. In this case, forest is integral part of them. The joint Decree of Minister of Mining and Energy and Minister of Forestry No. 969-429 1989 mentions that forest is a particular area designated and retained as permanent woodland zone. This designation and/or assignment are determined based on forest location or forest governance and forest function planning, such as: National Parks, Nature Reserves, Tourism Forest, Forest Protection, Forest Production and Forest with special functions.

The Joint Decree (SKB) also states that in the National Park, Tourism Park, and Forests with Special Functions, mining activities cannot be undertaken, except for non-commercial activities such as geological mapping and general research on minerals. The geological research may be conducted through a variety of methods of exploration to determine the possibility of natural disasters and to seek the potentials of mineral resources.

Beyond the three regions, places such as local nature reserves, wildlife reserves, hunting parks, protected forests, limited production forests and production forest areas, cannot be exploited by mining and energy enterprises. To mine conservation areas, those enterprises should receive a special permit from the Minister of State for Population and the Environmental Affairs and Indonesian Institute of Sciences. The provision of permit released by the Joint Decree for mining operations in the nature reserve area, is indirectly opposed the spirit of wildlife conservation. The Joint Decree of the Basic Forestry Law of 1967 mentions clearly that typical natural areas — including the natural areas for animals and vegetation — shall be protected for the advantage of sciences and cultures. This Joint Decree also does not include the Law No. 4 of 1982 as one of the legal references.

4.3. Reinterpreting the Blurred Norms in Regulating the Leuser Ecosystems Area

The discussion of this section is crucial because contradictory authorities appeared in the management of forestry under the Law No 41 of 1999, the Law No. 22 of 1999 and the Law No. 32 Year 2004. The current discussion is focused on the analysis of substantive judicial authority. Judicially, an authority is the right granted by the law to the subject of the law to do or not do something. In this context, the referred subjects are the government and local government. The question is how the government and local governments exercise their authorities in the forestry sector in relation to the local autonomy.

Changes that occurred in Indonesia, since the fall of Suharto in mid May 1998, did not constantly bring about an equally positive impact on the life of society. The emergence of inequity and equality was closely related to the centralized policy and suppressive political practices of the new order in the last three decades. Although the policy applied during the New Order era has caused public fraudulence and material and non-material losses, people's responses to the issue raise a paradox in the society. For those who suffered losses, the development model applied by Suharto regime was referred to as a partial and tormenting policy. In contrast, for those benefitted from the policy, due to the crystalized web of corruption, collusion and nepotism, such an approach was considered justified and worth retaining for their own interests and that of the ruling regime.

The aim of gaining maximum financial benefits for the sake of national development program has stimulated the enactment of various laws and regulations, especially in the forestry sector. Initially, the aim was considered to bring about profitable long-term materials. However, subsequently, it has brought about an unthinkable damage to the forest environment. If the New Order regime continues its policy to provide concessions for exploiting the productive forests to meet the demand of development, the wood supply will reduce, and eventually illegal logging will inevitably reach the protected forests, national parks and conservation forests.

The tendency to exploit forests destructively has long taken place since Suharto era. A similar phenomenon continued to strengthen during the reform period. A similar phenomenon continued to strengthen the reform period. The Law No. 22 of 1999 on Regional Government, the Law No. 22 of 1999 on Regional Government and the Law No. 25 of 1999 on Fiscal Balance Transfer between Central and Local Governments have encouraged the unethical exploitation of natural resources. The purpose of local autonomy is to authorize the local government to self-manage its region. However, the spirit of this policy is often wrongly interpreted and implemented by a number of local authorities as the freedom to speed up the development of their respective areas. Regardless of such freedom, the bargaining power of the local authority in controlling forests and national parks is still weak. The management of those sites is still under the authority of Ministry of Forestry (Central Government). The two main agencies that are supposed to assist the handling of forestry sectors in the autonomy era empirically do not play their significant role in the management of sustainable forests. They also do not encourage local communities' participation in the forest management. Even worse, one law on forestry management seems to contradict to the others.

Within ethical juridical perspectives, the current issue discussed in this sub-section is indeed a crucial part of forest management. In the law science, the study of ethical law is fundamental as the foundation for establishing legal norms. In this regard, the legal norm of forest management is regulated in the Law No. 41 Year 1999 and the Government Regulation in lieu of the Law No. 1 Year 2004 on the Amendment of the Forestry Law No. 41 of 1999.

Thus, it is necessary to review the legal principles contained in the environment law to provide flexible operations of the Forest Management authorities. Another important factor to consider is the function of legal principles that embody the spirits of law within a forestry management system. The legal ideal principle of forest management is outlined in Article 2 of the Law of No. 41 of 1999 and succinctly stated, "The implementation [of forestry management] is based on sustainable, democratic, fair, solidary, open, and integrated benefits". The legal principle is the common foundation or guideline for the applicable law and it must appear in any legislation, including the Law of Forestry. The logic of this legal principle lies in the common properties of the concrete legal regulations. Similarly, provisions of law produced people's representative should contain aspirations that reflect the objective of law. The legal principles formulated in the forestry legislation still raise problems, i.e. whether it belongs to general or specific legal principles. Before further exploring this issue, it is crucial to look into the application of the rules and principles of each category. In the general legal principles, the norms used to prepare and establish the production of laws should be based on the general principles. Similarly, in the specific legal principles, the application of norms is highly conditional. This denotes that the norm criteria used as a reference to formulate any legal products are limited and specific. Thus, they are synchronously attached to the intended goals of any law produced.

In the discussion of the legal principles of forestry, Mochtar Kusumaatmadja's insights can also be taken as an analogy. In his view, the development of general legal principles should be adhered to the principles of universal law. As an independent nation, Indonesia shall develop its national law based on the legal principles derived from the wisdom of its own people that is relevant to the modern world. From the above explanation, it can be inferred that the law referred to in Article 2 of Forestry Law, contains common legal principles. The argument for this is, among others, that the principles of benefit and sustainability essentially aim to maintain the balance of life in the community. Similarly, the principle of democracy signifies that the law of forestry is intended to give a sense of justice for those who receive justice, not the one who give the justice, i.e. the local government. Correspondingly, the fairness of law can be examined by looking at how the same issue is treated differently.

The principle of collectivism, also known as unity, is a reflection of the philosophical values of Indonesian people. In the forestry management, the government shall not use the principles of liberal capitalism based on the philosophy of western individualism. It is a mistake to put individuals in the management of forestry as this can interfere with the lives of local people. The principle of unity should primarily attend people's interests rather than individuals'. Thus, forest and its products can be utilized for the welfare of the people. In connection to the principle of unity, it can also be argued that another identical principle for unity is the principle of alliance. This principle idealizes a collective life that maintains orderliness, safety, peace, unity and love. Naturally, every human being wants to live under a collective unity using universal principles.

The same principles apply to the concepts of openness and integratedness in the forestry management. The principle of transparency (openness) in the forestry management will give opportunities to the people living around the forest to express their comments and criticisms when the local authorities are not considered transparent. A transparent public forest management will surely reflect the good performance of the regional good governance. To realize this ideal, commitment from all "*das sollen*" (the "ought") parties —encompassing political, executive and judiciary levels —, is required. In line with this, Koesnaldi Hardjosoemantri suggests that one of the commitments to sustainable development is to carry out good governance, poverty reduction, management of water, energy and mineral resources, health and environment, educational development, and sustainable production and consumption. Here, equity and balance funding seem to become the key dimensions of sustainable development. Despite such ideals, this view has not yet defined concretely the principles of good governance on forestry. It just presents affirmative regulations to the environment. As regards the previous view, it is therefore necessary to deal in forestry development at the level of local autonomy. Agreements can be made mutually between the government and other relevant parties, such as universities, business worlds, non-governmental organizations, forest groups, and other caring institutions, to establish and maintain a sustainable model of forestry development at the local level.

5. *Designing the Appropriate Regulatory Model in Controlling, Managing and Developing the Leuser Ecosystems Area*

The appropriate regulatory model must be tailored not only to national and international interests, but also the interests of local communities living in the area of Leuser.

This is an important point to consider holistic approach in order to accommodate all related parties in managing and developing LEA. Under Indonesian positive laws, the holistic approach could be constructed and framed from Pancasila, the fifth principle, social justice for all, as the grand norms of Indonesian positive laws. At the constitutional level, the holistic approach may find its normative foundation from Indonesian constitution 1945, article 28 that guarantees the fundamental rights of people to have and enjoy a good environment. From legal theory perspective, the constitution article 28, laying down a positive obligation to the government to protect and guarantee the accessibility of people to have a good environment. At the technical level, it is necessary to note that the protection and the guarantee of the fundamental rights could be implemented by maintaining the balanced rights of related parties. This is relevant to ascertain the holistic approach implemented proportionally.

6. Closing Remarks

Leuser ecosystem area (LEA) is a strategic medium which supports the sustainability of collective life. Therefore, all parties, i.e. the government, indigenous, local, national, and international peoples, must support the preservation and the sustainability of LEA. This can be done through legal and non-legal approaches. The legal approach can be done through the construction and embodiment of the values of integrity and sustainability in various legal products, both laws and government/local regulations. The values of integrity and sustainability must be the basis of embodiment of ecological policies.

Forest management should be able to provide fair prosperity for the people in the process of sustainable development. The government cannot get rid of the rights of indigenous communities whose existence is recognized by a legal instrument. This means that if indigenous forests really still exist, the government must give space to the custom institutions. Today's LEA reality shows that indigenous forests are indeed still managed by indigenous peoples. The question is whether these communities have been shifted or do not get access to the forest area. In the era of local autonomy, this issue needs to be addressed more carefully by the public policy makers.

The principles of forest utilization ought to be consistent with that of decentralization. It highly prioritizes for the economic interests of indigenous peoples. The Law No. 32 of 2004 does not state explicitly about forest management matters. However, the Law indeed says that normatively the management of natural resources or other substances should be under the local authority. The shared authority between the central and local governments can be closely looked at in Article 11 and 14 of the Law of No. 33 Year 2004. Both articles confirm that incomes resulted from forestry resources are derived from Forest Exploitation Rights and Provincial Forestry Revenue. The incomes will then be divided into 20% for the central government and 80% for the local governments. Forestry revenues derived from reforestation funds shall be divided into 60% for the central government and 40% for local governments. This is in line with Article 35. This is in line with Article 35 of the Law of No. 41 of 1999 that explains that each proprietor of forest utilization license is subject to paying fees for business license, reforestation and performance bonds at the provincial level. This financial balance is the manifestation of decentralization, de-concentration and renewal principles.

The present exploitation of natural resources seems to focus highly on economic profits. The natural resources should be utilized for the development that improves the social welfare. However, the fact shows that the exploitation of mining and logging sites only benefits the elite. In the same vein, environmental aspects that should be greatly addressed are still very much ignored. The fact also shows that there is incompatibility between the economy growth and the environment protection. Environmental problems are not addressed properly yet.

As a unity of legal community, a region has autonomous authority to regulate and manage the area in accordance with aspirations and interests of the community as far as they are not contrary to the national legal order and public interests. In order to provide a wider space to regions to regulate and manage the lives of its peoples, the central government should pay its attention to the local wisdom when developing its policies. Similarly, the local government should also consider the national interests when forming legislation or other policies. Thus, a balance between national and regional interests can be synergized and the local condition, distinctiveness, and wisdom can be equally retained as a whole in the implementation of governance.

As an autonomous region, Aceh faces a number of challenges when implementing the above policy. Indeed, to achieve equitable and sustainable utilizations of natural resources, the development planning should be measurable. The transitory gains enticed by investors will slowly create damages to natural resources and contaminate the land concessions. This will eventually trigger climate change and never-ending land conflicts.

For this reason, the Government of NAD must re-examine and reconsider the policies and regulations related to the development arranged in the Regulation of the Minister of the Interior No. 53 of 2011 on the Establishment of Regional Legal Products. The central government and the government of Aceh should therefore take quick, real and precise actions impartially to save LEA as a World Heritage of human beings. ***

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