Legal protection against forest areas to ensure habitat wildlife in the Wallacea region

Maskun¹, Naswar², Achmad³, H Assidiq⁴ and J Raisman⁵

¹International Law Department, Faculty of Law, Universitas Hasanuddin
²Constitutional Law Department, Faculty of Law, Universitas Hasanuddin
³Civil Law Department, Faculty of Law, Universitas Hasanuddin
⁴Assistant Researchers, Faculty of Law, Universitas Hasanuddin
⁵Assistant Researchers, Biology Department, Universitas Hasanuddin

Email: maskunmaskun31@gmail.com

Abstract. The forest area is a natural habitat of endemic flora and fauna in the Wallacea Region, which is very important to ensure flora and fauna. Forest conversion is often carried out by the government in a structured and systematic way for clearing oil palm plantations. In addition, the determination of the forest area by the government is also often carried out without verification, which overlaps with the surrounding community who have cleared the land before the area is determined by the government. The stipulation of the Presidential Regulation No. 88 of 2018 concerning the settlement of land ownership is considered to provide legal certainty regarding the status of land ownership in forest areas. The purpose of this study is to analyze effective legal protection schemes to ensure the habitat of flora and fauna in the regional Wallacea to remain sustainable. The normative approach is made by analyzing the contents of the relevant laws. The results of this study indicate that there are fundamental problems at the level of legislation regarding the release of forest areas that are contradictory to other regulations so that it impacts on the threat to the endemic flora and fauna sustainability of the Wallacea region.

1. Introduction

Indonesia is one of the ten countries with the highest biodiversity in the world, along with Brazil, Zaire, Peru, Colombia, and several other countries [1]. This is certainly in line with Indonesia's geographical location, which is on the Equator and is supported by the vast forest area. Indonesian land is 187.8 million hectares. 120.6 million hectares of which are forest areas that cover 63% of the total land area Indonesia, and 67.4 million hectares or 35.9% is used for other purposes [2]. The magnitude of the areas of forest that reaches 63% of Indonesia's land has been put the forest in a very important position to be maintained and protected. Therefore, forests must be preserved and managed in order to create prosperity for the people of Indonesia.

Regarding forest governance, it is currently in an alarming situation, especially from the issue of deforestation that is happening massively. According to the data during 2016-2017, the rate of deforestation reached 0.48 Million hectares/year, although this figure is down compared to 2015-2016, reaching 0.63 Million hectares/year [3]. The areas of Indonesian forest in 2017 can be seen in the table below:
It is known that forest has flora and fauna, and one of the high diversity of endemic flora and fauna is the Wallacea region. The Indonesian Wallacea region biogeographically is separated into three regions, namely: (1) Sunda (Oriental); (2) Sahul (Australia); (3) Wallacea (mixed). Sunda and Sahul regions are primary biogeography, and a mixture of both is called the Wallacea. Based on the Wallace and Lydekker lines, the Critical Ecosystem Partnership Fund (CEPF) defines the Wallacea hotspot as an archipelago in Indonesia and Timor-Leste between the Sunda and Sahul exposures. This area covers an area of 33.8 million hectares and includes three biogeographic sub-regions, namely Maluku, Sunda, and Sulawesi. In 2011, the area of forest cover in this area was only 17.7 million hectares or about 50% of the Wallacea area. Sulawesi accounts for the largest forest cover to reach 56% of the Wallacea forest area. Meanwhile, Maluku only has 20%, and Sunda was 19% (including 4% in Timor-Leste) [4].

To maintain the existence of flora and fauna, particular in the Wallacea region, forest preservation as the habitat of flora and fauna become a key factor to be protected. Destruction of forests will result in the extinction of life that are supporting human life in which the forest has a function as a water buffer. In this case, the forest destruction will result in difficulties in fulfilling clean water which will ultimately result in other ecological disasters, such as floods, landslides, and drought. The land swap is also regarded as one of the sustainability of the forest threatens.

The government, therefore, seeks to preserve the forest from the threat of damage. One of the government efforts is to provide legal certainty to the forest area, known as the inauguration of the forest area. However, the inauguration of the forest area often intersects with the interests of society and the company. The land conflicts occur because, in locations that have been inventoried by the government as forests, there is land tenure, whether done by communities or companies through
licensing schemes. To deal with the conflicts of interest, the government has issued the Indonesian Presidential Regulation No. 88 of 2017 on the Settlement of Land Tenure in Forest Areas to resolve tenure conflicts within the forest. However, the Indonesian Presidential Regulation No. 88 of 2017 has some weaknesses, such as the recognition of the existence of indigenous peoples and the rights to preservation of endemic flora and fauna in the Wallacea region by giving rights and obligations as a legal entity.

2. Research methods
This research is normative research. The data are collected from primary and secondary legal materials. The primary legal material is obtained from relevant legislation, laws, and the secondary legal materials are obtained from various literature such as journal and books. Those legal materials are analyzed descriptively to reveal some problems and prescriptively some legal norms in order to realize the legal protection of a comprehensive forest.

3. Results and Discussion
3.1. Forest Area Inauguration Mechanism
The inauguration of a forest area is a process of providing legality and legitimacy of forest area. According to the Law No. 41 of 1999 Concerning Forestry, it is an integrated process in forestry planning with a mechanism that is: (a) forest inventory; (b) forest area inauguration; (c) use of forest areas; (d) formation of forest management areas; and (e) preparation of forestry plans. While specifically for the inauguration of the forest area based on Article 15 of the Forestry Law can be carried out by a) designation of the forest area; (b) arrangement of forest area boundaries; (c) mapping of forest areas; and (d) determination of forest area.

Regarding the mechanism of forest inauguration, which is one of the ways of agrarian reform, it is assumed that it must stick to the principles contained in the Decree of the People's Consultative Assembly (TAP MPR) No. IX / MPR / 2001 concerning Agrarian Reform and Natural Resource Management. This regulation includes 12 principles of agrarian reform and natural resource management. According to Myrna A. Safitri and Grahat Nagara (2015) [4], there are four principles related to forest inauguration, namely: (1) social justice; (2) forest sustainability; (3) legal certainty; and (4) good forest governance. They conclude that principles of justice social, the principle of legal certainty, and the principle of legal protection are very weak implemented in Indonesian laws. It is seen from the laws are not clear, detailed, and harmonized with the use of terms, definitions, criteria, procedures for the recognition of indigenous and tribal peoples, land rights, indigenous territories, and forests. Incompatible in several key definitions of laws have implications for understanding those properly. So that multiple interpretations are inevitable.

Recognition of indigenous peoples is still ambiguous due to various definitions that are not aligned in the laws. Therefore, the forest area's inauguration often ignores the rights of indigenous peoples. In this context, land conflict almost takes place amongst the government, the company, and society. Another problem related to the inauguration is the criminalization of people who live around the forest area from generation to generation. In this case, if the indigenous people cut down some trees for the sake of continuing their lives, they are charged with illegal logging or forest destruction. The Law Number 18 of 2013 concerning Prevention and Eradication of Forest Destruction is applied to charge the indigenous people activities. However, this rapid law enforcement process does not occur to those who systematically organized to cut down trees due to they obtain permission from the government. So, forest destruction becomes legal to do.

3.2. The Presidential Regulation No. 88 of 2017
The inauguration of forest areas that ignore the rights of people surrounding communities or the indigenous people's rights has implications for the inevitable conflict. The government almost sets an area, but in the land have, in fact, been carried out by local communities. So that the rule is not having legitimacy and certainly if it is imposed that it will result in the social disintegration. This
happens because people had already occupied the area for generations, and the government does the inauguration of forest area is solely based on the fact in the area there are still areas of the primary forest without identification of landholding.

The contents of the Presidential Regulation No. 88 of 2017 basically includes:
1) Identification of land use control in forest areas;
2) The pattern of settlement of authority and utilization in a forest area that is divided into:
   (a) land that has been controlled and utilized and / or has been granted rights on it before the plot of land is designated as a forest area; and
   (b) land that is controlled and utilized after the parcel of land is designated as forest areas.
3) Performing team accelerated the settlement of land tenure in forest areas are chaired by the Minister for Economic Affairs;
4) Remedy procedure of land tenure in forest areas, including the objection mechanism that could be done by the parties to the Minister of Environment and Forestry on decision settlement of land tenure in forest areas. An appeal can be submitted via the Regent / Mayor; and
5) Integration of changes in the boundaries of state forest areas in the spatial planning area.

According to various civil society organizations, the Presidential Regulation No. 88 of 2017 on the pattern of conflict resolution issues does not get involved maximal the communities affected by the designation of forest areas. The Presidential Regulation is different from the mechanisms of conflict resolution based on the Regulation of the Minister of Agrarian and Spatial / the Head of National Land Agency Number 10 of 2016 Concerning Procedures for Determination of the Communal Land Rights of Indigenous People and Society. This regulation is considered to be more accommodating because it is still possible to do deliberation. While in the Presidential Regulation, the decision settlement can only be done by the Minister of Environment and Forestry as set forth in Article 24 paragraph (4) of the Presidential Regulation.

In addition, the Presidential Regulation is also considered to neglect the interests of indigenous peoples in the scheme of the settlement of forest areas with conservation and protection functions. In this case, the settlement of the forest area is carried out through resettlement that the procedure of which is regulated through Team Decisions of Settlement Land Tenure in the Forest Zone. According to preliminary data of Aliansi Masyarakat Adat Nusantara, the potential of indigenous territories are threatened resettlement for located in a conservation area of 1, 62 million hectares. This figure is 20% of the 8.2 million hectares of indigenous territories that have been registered in the Ministry of Environment and Forestry, the Ministry of ATR / BPN, the Geospatial Information Agency (BIG), and the Peat Restoration Agency (BRG).

3.3. Threat of Deforestation
According to Madani’s Report, the potential deforestation in Indonesia can be seen in several respects:
(1) Permit the use of a new forest. Of the 38.4 million hectares of production forest that have not been encumbered with permits. Five million hectares out of 38.4 million hectares have been allocated for new permits for large-scale forest use. It means that new forest concessions will be then given to industrial plantations. This situational will create ‘planned deforestation’ or in this sense, is called "legal deforestation efforts”; (2) For the release of forest areas. Around 12.8 million hectares of production forest have been allocated as Conversion Production Forests (HPK) and can be released from forest areas to non-forestry development purposes (for example, plantations). It means that among the 12.8 million hectares of HPK, 2.5 million hectares are primary forests and 3.8 million hectares are secondary forests will face high threats because HPK does not have equal legal protection as permanent production forests or limited production forest; (3) Secondary Forests are not protected in the Moratorium; (4) Natural forest outside the forest area included in the Other Use Areas (APL); and (5) land exchange policy (land swap).

Based on the Madani’s report, in 2018, the government has identified the cause of deforestation in Indonesia, as followings: (i) intensification of deforestation in the IUPHHK-HA concession; (ii)
conversion of forest areas by other sectors, including expansion of agriculture (plantations); (iii) mining activities; (iv) plantations and transmigration; (v) unsustainable forest management; (vi) illegal logging; (vii) encroachment; (viii) illegal occupation of land in forest areas; and (ix) forest fires.

According to the Anti-Mafia Forest Coalition, Land Swap is done as a government response to plant forest concessions (HTI) affected by protection policies in order to prevent the recurrence of peatland and forest fires. In the map of land swap allocation published by the Ministry of Environment and Forestry, the Anti-Mafia Forest Coalition assesses the threat of planned and systematic deforestation by the government through this scheme. Out of a total allocation of 921,230 hectares for land swaps, 362. Three hundred ninety hectares or 40% of them are forest cover both primary and secondary forest. Land swap allocation based on provinces that threaten the largest natural forest cover in the sequence is in Aceh, Papua, Central Kalimantan, Nusa Tenggara, and Maluku. Nearly 70% (covering an area of 251,137 hectares) of total primary and secondary natural forest cover threatened by this land swap policy are in all five provinces.

While specifically for the Wallacea region, the threat of deforestation comes from the lack of clarity in the management and management scheme. The Wallacea area has a production forest covering an area of ± 14.1 million hectares or 53% of the total forest area. The area of production forest that has been encumbered with Timber Forest Product Utilization Permit in Natural Forest (IUPHHK-HA) is 3.2 million hectares, and Timber Forest Product Utilization Permit (IUPH HK-HT) is 0.2 million hectares. Thus, there are still 10.7 million hectares that have not been encumbered with rights so that managers and management need to be clarified. The geographical conditions of small islands bordered by oceans and seas with limited natural resources make the conditions of these islands vulnerable to pressure. The slightest damage to natural resources on the island will have an impact on the stability of the island's ecosystem, which generally depends on forest integrity.

In ongoing research on sustainable palm oil management carried out in 2019, it is stated that in East Luwu Regency, there are areas that have been designated as forest areas, but those areas controlled by local communities and they have cleared the land to be planted with oil palm plantations. To provide legal certainty in the area, it is carried out changes in forest area by issuing an area that has been done clearing of forest areas. It is certainly going to have implications for the increasing deforestation due to the government's efforts to continuously improve oil productivity for the sake of increasing its exports.

3.4. Area of Forest As A Habitat for Endemic Flora and Fauna
The brief of the ecosystem profile in Wallacea explained that there are some high levels of biodiversity area or called the Key Biodiversity Areas (KBA). This assessment is based on available data relating to the population of globally endangered species, the population of globally significant endemic species, or highly dependent species on the conservation of the area.

The forest area in Wallacea (Indonesia) covers 23.4 million hectares or 69% of the total land area. Approximately 7.9 million hectares or 88 percent of the total area (KBA) terrestrial area in the state forest area, conservation forest, forest intended for the protection of watersheds or protected forests, and production forests. There are 2.7 million hectares of KBA in the conservation area in Indonesia. Seventy percent of the terrestrial KBA areas in Indonesia (6.2 million hectares) are outside the official conservation area network. There are KBA who has a high diversity of flora and fauna are threatened because they are not in a conservation area owned by the government officially. Therefore, it is very important to quickly identify and follow up the reports on the ecosystem profile to provide legal protection to the region and to maintain its sustainability.

3.5 Right to Sustainability of Endemic Flora and Fauna
International Environmental Law continues to develop today. One of the development issues is the strengthening of the preservation of endemic flora and fauna. In this context, the endemic flora and fauna have to give special rights to avoid pollution/destruction. Regarding the legal entity of the endemic flora and fauna, it is happening in New Zealand and India. Both countries have recognized
the river as subjects of law, namely the Whanganui River in New Zealand, and Gangga and Yamuna rivers in India.

Christopher D Stone states that the need for a natural environment such as land, rivers, forests, and animals is given legal rights. This rights can be given to the rights holder if meet several requirements such as: (1) the law requires officials or government agencies to assess and review the activities which can be complicated conflict with or violate the rights; (2) the right-holder can file a claim if his rights are threatened; (3) In determining legal remedies, the court must consider the loss of that right; (4) The recovery must be given to the right holder [5]. Therefore, to further strengthen the conservation efforts undertaken, it is important to give legal rights to certain endemic flora and fauna.

Bisari Yadi explains that there are different reasons for the determination of the three rivers to be a legal subject. It depends on the cultural background and political situation in both countries. Bisari continues to state that for the Maori people who are native to New Zealand, the Whanganui River, or Te Awa Tupua (in the local language), has a very important meaning for daily life and spiritual life. The Maori tribe considers that the Whanganui river as the forerunner to the birth of the Maori tribe related to the struggle of their ancestors. The arrival of immigrants then threatened the existence of the river, and its sacred value was slowly marginalized.

Unlike the River in India, the Uttarakhand High Court's ruling on the designation of the Gangga and Yamuna rivers as legal entities began with a protracted and uninterrupted river management dispute. Bisari explained that damage to the ecosystem and health of water rates plus mining activities around the river became the Panel of Judge's consideration to decide the need for extraordinary efforts to maintain the existence of the river. In addition, the existence of the two rivers is also a spiritual place of worship for Hindus. Those reasons need to establish the two rivers as legal entities, which is also because the river not only has an ecological function to support people's lives, but also the river breathes and lives like humans so that their health needs to be maintained.

If looking at the condition of Indonesia, especially in the Wallacea region, there are a variety of endemic flora and fauna, and it is very important to provide a legal entity in preserving the ecosystem as a guarantee of its sustainability. In addition, the management style of natural resources based on scientific science is considered as the root of environmental damage. The management of natural resources in sectoral nature has worsened the situation. There are alternative of management of natural resources can be in doing based on bio-regionalism. According to Judit Plant, which develop Deep Ecology Theory as quoted Hariadi Kartodiharjo bio-regionalism is a process to identify, preserve, maintain, and declare that there is a strong relationship between the location where the human being with the land, plants, animals, rivers, leaves, sea, air, family, friends and neighbors, as well as production and trade systems. Hariadi Kartodiharjo added that there are 5 frameworks in dissecting approach to bio-regionalism, namely: (1) rejecting the idea that only focuses on "science industry"; (2) focusing and planning on a regional scale; (3) Cooperation and involvement of the parties; (4) the sustainability of the three pillars, namely economy-social-ecology; and (5) holistic, complex, process-oriented thinking [3].

4. Conclusion
Legal protection of forest areas to ensure flora and fauna habitats in the Wallacea Region must be identified from the root of the problem that threatens the preservation of forest areas. The forest is a habitat for a variety of flora and fauna, which is very worrying if deforestation occurs continuously in Indonesia. Some solution has schemed in some laws such as the Law No. 41 of 1999 Concerning Forestry, the Presidential Regulation No. 88 of 2017 concerning the settlement of land ownership is considered to provide legal certainty, and so on. Another scheme to ensure the legal protection of the Wallacea region is to provide rights and obligations as legal subjects to ensure its sustainability further.

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