

DEFORESTATION OVER TIME IN THE LAND OF

Papua



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(Papua, West Papua, and Aru Islands)

Preface

Papua is the eastern part of Indonesia that has very high biodiversity. In fact, Papua is also habitat for Australis' typical fauna species such as marsupials and several species of birds. In 2012, the mainland of Papua was dominated by natural forests which reached about 86% of the land area. Meanwhile, the results of FWI's analysis in 2014 showed that natural forests in the Papua Bioregion reached 83% of the land. Until 2017, there was a reduction in the forest area (deforestation) covering an area of 189.3 thousand hectares / year between 2013 to 2017. Practically until 2017, the area of natural forest in Papua was around 33.7 million hectares or 81% of land.

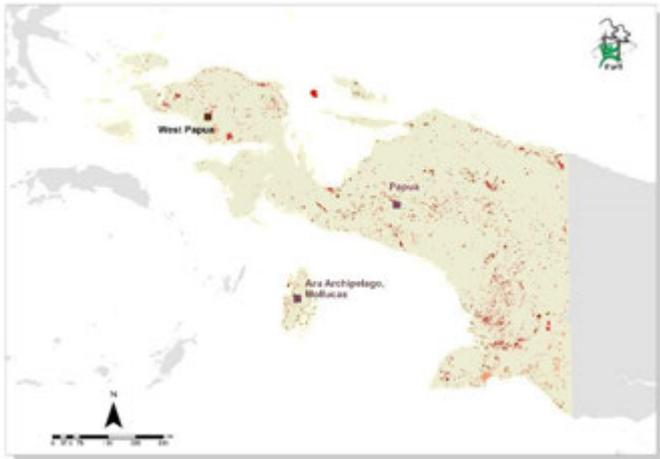


Figure 1 Deforestation in the Papua Bioregion year 2000-2018

Forest has become a part of the lives of Papuans who are very dependent on natural forests. The local wisdom of the community in utilizing forests is of particular value for indigenous peoples in forest management. These practices are real examples of sustainable forest management that are obtained based on needs and empirical experiences according to the applicable customary rules.

Nevertheless, the splendour of natural forests in Papua has never been separated from the threats of deforestation and degradation. Land-based extractive industries massively continue to convert natural forests and eliminate the sources of life of the people and the habitat of the endemic animals.

Land Cover Change in Each Ruling Regime

Analysis of land cover changes was done using a confusion matrix resulted in a net change of land cover change in a certain period. In this case, the detail of land cover changes is reviewed based on the president's leadership periods in Indonesia, namely the new order, the early of reformation, Susilo Bambang Yudhoyono, and Joko Widodo.

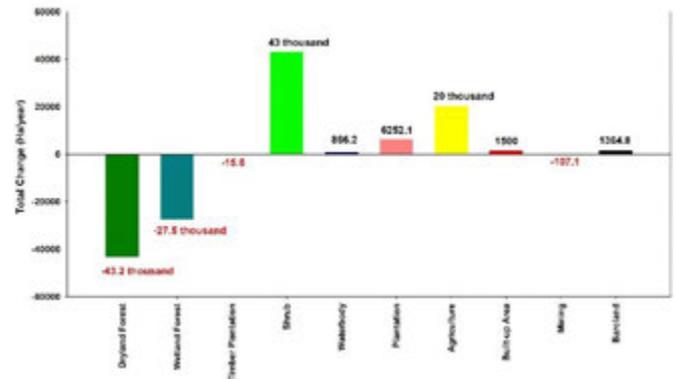


Figure 2 Graphic of Land Cover Degradation (year 1990-2017). (Source: FWI 2018, analysis of land cover digital data of MoEF year 1990-2017)

Within a period of 27 years, there have been 6 changes to the President's leadership, which are President Soeharto, BJ Habibie, Abdurrahman Wahid, Megawati Soekarno Putri, Susilo Bambang Yudhoyono, and Joko Widodo. Based on Figure 2, land cover changes occur in dryland forests at a rate of 43.2 thousand hectares / year, and in wetland forests at a rate of 27.5 thousand hectares / year. Most of the changes in forest cover are turned into shrubs with an increase in rates reaching 43 thousand hectares / year and agricultural land up to 20 thousand hectares / year.

The results of the land cover data analysis of Ministry of Environment and Forestry (MoEF) in the period year 1990-2017¹ can show the policy direction of each regime towards the dynamics of changes in forest cover in the Papua Bioregion. Figure 2 shows that currently there are natural forests in Papua that have been replaced by shrubs which are then converted into agricultural land, plantation, and built-up land. Figure 2 also shows that the proliferation of land conversion into oil palm plantations and illegal logging that occurred is inseparable from previous policies. For the example is the massive logging by forest concession companies and transmigration programs during the New Order period. In addition, policies that directly eliminate natural forests are also visible. An example is the presence of 70 decrees of forest area releases of 721 thousand hectares for the plantation area in the President Susilo Bambang Yudoyono era. When referring to MoEF's data of land cover changes, policies in that period had a direct impact on the loss of around 400 thousand hectares of forest in Papua.

¹ Land Cover Data of MoEF year 1990, 1996, 2003, 2014, 2017. Substitution of the New Order Era to Reformation took place in 1998. However, there is no data available so that it refers to the 1996 data.

New Order Era (1990-1996)

Since the issuance of Law Number 5 of 1967 concerning Forestry, the logging concession (HPH) approval system began to start. Both state-owned companies (BUMN) and private companies are competing to have the forest concessions. These ruling elites then built cooperation with traders to exploit forests with the very limited involvement from forest scientists or those who "understand" how to change forests without destroying nature. The effect was that in 1995 there were about 586 forest concessions with a total area of 63 million hectares, or more than half of the total forest area, both those exploited by the private and state-owned companies².

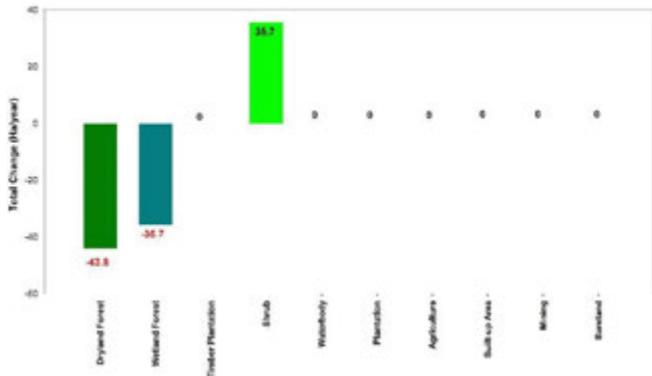


Figure 3 Graphic of Land Cover Degradation in New Order Era. (Source: analysis of land cover digital data of MoEF year 1990-1996)

During President Soeharto's era, there was a loss of dryland forests at a rate of 43 hectares / year, and wetland forests of 35 hectares / year in Papua. The decrease in forest area was followed by an increase in shrub area of 35 hectares / year (Figure 3). The change of forest to shrubs indicated the existence of logging activities in that period. There were 10 Forest Area Release Permits with total area up to 72,521.7 ha issued for plantation development (Table 2). It was the beginning of the expansion of oil palm plantations in Papua.

In addition to forest exploitation by extractive industries during the time of President Soeharto, the transmigration program also had a large contribution in relation to forest destruction and social inequality. At the time, there were 30 decrees for the release of forest areas with an area of 90,378 hectares which were intended for transmigration (Table 1).

Many cases have shown the land ownership change from habitation land of indigenous tribes in Papua to migrants. This is the impact of the transmigration program promoted by the New Order government. According to Austrian anthropologist Christian Warta, Suharto's ideology of "displacement of the population" was based on assumptions about the advantages of newcomers. Suharto saw migrants bring modernity to remote areas of Papua. On the other hand, the Papuans was seen as a disadvantaged society that must be cultured and civilized. As a result, many Papuans felt marginalized by the increasing number of migrants³.

Table 1. Area of forest area release permits for transmigration.

Government Regime	Number of Permits	Area of permits
Suharto	30	90,378.91
1991	13	57,866.37
1996	17	32,512.54
SBY	1	31.28
2014	1	31.28
Jokowi	1	195.71
2017	1	195.71
Grand Total	32	90,605.90

Source: Data of Forest Area Release of the MoEF until the year of 2017.

The Early Period of Reformation (Habibie, Abdurrahman Wahid, Megawati)

In the shadow of the exploitative development 'ideology' during the Soeharto-Habibie-Abdurrahman Wahid era up to Megawati Sukarnoputri, the reorganization of the Unitary State of the Republic of Indonesia through regional autonomy became a debate in almost all levels of society. The policy of regional autonomy was marked by the issuance of Law Number 22 Year 1999 and Law Number 25 Year 1999. In fact, there is a law in Papua itself, which is the Law Number 21 Year 2001 which regulates special autonomy for the Papua Province. At the level of implementation, the Policy had not touched on fundamental issues regarding people's relations with the government where during the New Order, this was a problem faced by indigenous or local communities. There was no clarity, firmness, and freedom for the people to enter the arena of determining policies for public interests.

The impact of this policy was that the Regents (district leaders) competed to attract as much local revenue as possible by issuing small-scale HPH permits, timber utilization permits, and so on, without the calculation of forest resource availability. Increased authority of the regents and regional parliament (DPRD) did not necessarily mean reducing the authority of the central government in the regions over natural resources. On the other hand, Ministry of Forestry (currently MoEF) as a central government technical agency still used the Law Number 41 Year 1999 to maintain its absolute stewardship of the forest area, including to grant and to revoke logging concessions (HPH), timber plantation (HTI), and to release forest areas. Forest destruction at that time was

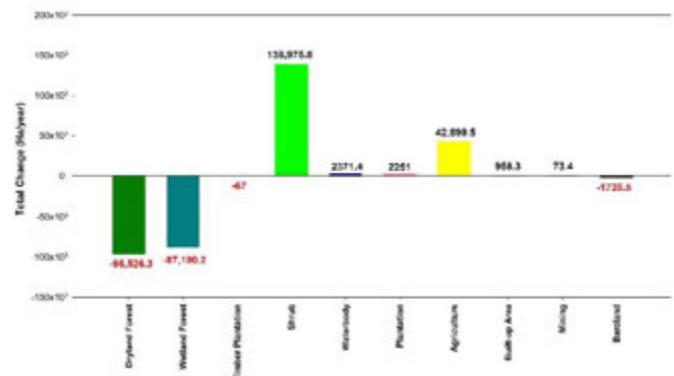


Figure 4 Graphic of Land Cover Degradation in the early reformation era. (Source: analysis of land cover digital data of MoEF year 1996-2003)

increasingly massive with the form of legal forest looting

² Nababan A, 2004. Sejarah Penjarahan Hutan Nasional Part 2. Magazine of Intip Hutan. Forest Watch Indonesia. Bogor

³ <https://historia.id/modern/articles/papua-di-tangan-soeharto-DpwQV>. Accessed in Desember 21st, 2018.

activities which were increased in diverse forms compared to before.

The more chaotic forest destruction was also seen in Papua. It was very different from the previous period, at this time there was a significant change in land cover. There was a loss of 96,000 hectares / year of dryland forest and 87 thousand hectares / year of the wetland forest. The impact on land cover was an increase in bushes of 138 thousand hectares / year, agricultural land of 42 thousand hectares / year, and mine land of 73 hectares / year (Figure 4). In addition, there were also 4 Forest Area Release Permits for plantations covering an area of 94,332.69 hectares (Table 2).

The Increased authority of the Regional Government in granting forest utilization permits was not accompanied by the government's capacity to control forest exploitation. This impacted the increasing practice of illegal logging. This form of forest looting was generally carried out by timber barons who did not have logging licenses, but controlled logging and timber trading operations. They generally had an official wood processing industry, but did not have permits for logging concessions. This kind of logging operations moved around and were well organized.

On the other hand, "reformation" had encouraged the dynamics of local politics and provided space for political participation for public both through formal and informal political mechanisms. Various natural resource conflicts that were previously hidden became opened. Thus, it became a necessity to overcome their causes and impacts. In addition, at this period, it had shown signs that the expansion of natural forest into agricultural and plantation land will change the landscape of Papua during the next administration.

Period of Susilo Bambang Yudhoyono

In line with the previous administration period, during the leadership of Susilo Bambang Yudhoyono, land-based investments that occurred in Papua were increasingly massive. The conversion of natural forest to plantations continued and left injustice in Papua. The lost of dryland forest was 32.9 thousand hectares / year and wetland forest was 8,757 hectares / year. As a result, there were areas of forest that were turned into agricultural areas at a rate of 21.8 thousand hectares / year, plantations 6,245 hectares / year, bushes 11.8 thousand hectares / year, open land 4,499.9 hectares / year and mine land 174 hectares / year (Figure 5).

During the President Susilo Bambang Yudhoyono's leadership, the highest land cover change as a result of deforestation was for agriculture, continuing what happened in the previous administration. One of the highlights was the large-scale agricultural development program in Merauke, Papua. Eight years after President Soeharto stepped down, the government through the power of president Susilo Bambang Yudhoyono again issued a policy to address food problems. MIRE (Merauke Integrated Rice Estate) was a program to clear more than one million hectares of land in Merauke, Papua. In 2008, MIRE changed to MIFEE (Merauke Integrated Food and Energy Estate). In 2010 Medco's ceremonial pilot project was held in Serapu, Merauke. Through Government Regulation Number 26 Year 2008, Presidential Regulation Number 5 Year 2008, and Government Regulation Number 18 Year 2010, it was planned to have around 1.23 million hectares of land to be developed. Furthermore, to expedite this project, the Ministry of Forestry under the leadership of Susilo Bambang

Yudhoyono issued 70 decrees of forest area release for plantations reaching an area of 721,391 hectares (Table 2).

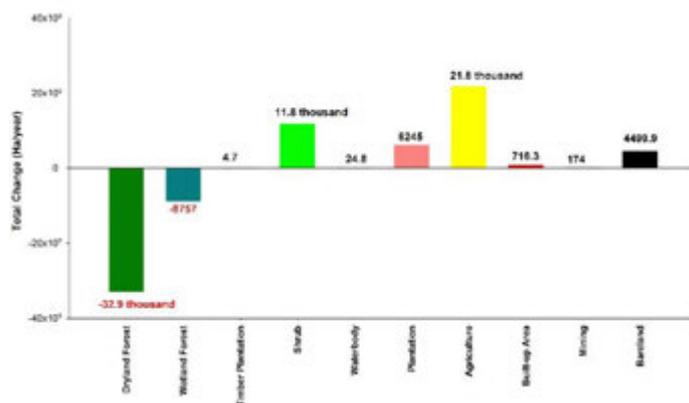


Figure 5 Graphic of Land Cover Degradation in the era of President Susilo Bambang Yudhoyono. (Source: analysis of land cover digital data of MoEF year2003-2014)

Table 2. Number of decrees of forest area release for plantation

Government Regime	Number of Permits	Area of permits
Soeharto	10	72,521.65
Early Reformation	4	94,332.69
Susilo Bambang Yudhoyono	70	721,391.16
Jokowi	4	36,244.59
Grand Total	88	924,490.09

Source: Data of forest area release of MoEF until the year 2017

Moreover, to support the greedy space development program in Papua, the government also issued Presidential Regulation Number 65 Year 2011 concerning the acceleration of the development in the Papua and West Papua provinces, and Presidential Regulation Number 40 Year 2013 concerning road construction in order to accelerate the development of the Papua and West Papua provinces. Even in that Presidential Regulation, the President directly instructed the Indonesian National Army (TNI) as the implementor of the acceleration of road construction in Papua. This large-scale exploitation plan in Papua has all been summarized in the document of Master Plan for the Acceleration and Expansion of Indonesian Economic Development (MP3EI) 2011-2025.

Present Forest Conditions (Era of Joko Widodo)

During the period of President Joko Widodo in 2014-2017, there was a loss of 43,000 hectares / year of dryland forest and 12,000 hectares / year of wetland forest. The loss of natural forest in this period was also followed by an increase of land cover for plantations at a rate of 28 thousand hectares / year and shrubs of 18 thousand hectares / year (Figure 6).

The dominance of plantation expansion (especially oil palm) at this time is the highest gain continuing what happened in the past. This is also related to the number of licenses to release forest areas for plantations issued during the previous administration. The data also show that the emergence of a land cover at a certain time will become dominant in the next leadership period. This is what makes the problems related to forestry increasingly complex, because what happens in a period of government indirectly has relations with the policies in the previous administration.

Practically, the land-based development policies carried out in the period of Susilo Bambang Yudhoyono still continue during

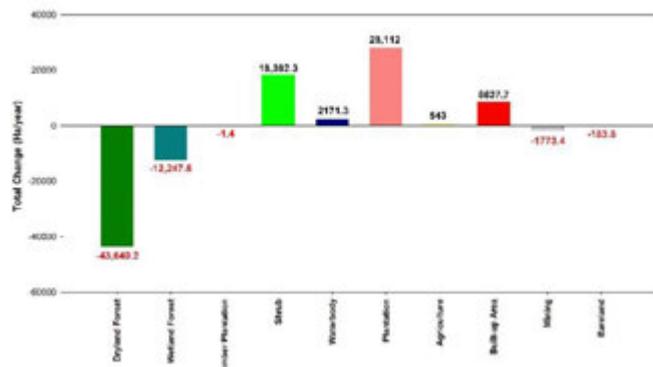


Figure 6 Graphic of Land Cover Degradation in the Joko Widodo's era. (Source: analysis of land cover digital data of MoEF year 2014-2017)

Joko Widodo's. Even with different "clothes" in the name of development, the fact is that the expansion of natural forests continues to occur. Even up to 2017, there have been 4 permits for the forest area release for plantations with an area of 36,244 hectares issued by the Minister of Forestry (Table 2).

During the 4 years of Joko Widodo's reign, there was an increase in built land area covering an area of 8,638 hectares / year. With the massive infrastructure development in the current administration, it can be estimated that in the future the number of built land in Papua will increase sharply, following the plantation and agricultural land which will also increase. Under these conditions, natural forests in Papua will become victims. Likewise, the life system of the indigenous people who is very dependent on forests.

The Fate of Papua Forests in the Future Era

Forest conditions in Papua Bioregion were analyzed based on data from FWI forest cover in 2000, 2009, 2013, and 2017. Massive forest losses were detected in the southern part of Papua (e.g. Merauke, Mappi, Bovendigul). Some large cities close to the coast also have extensive forest encroachment (e.g. Jayapura, Sorong, and Manokwari).

Based on Figure 7, there was a significant increase in the rate of deforestation between the period 2000-2009 with 2009-2013. In the period 2000-2009, the deforestation rate in the Papua Bioregion was 60.3 thousand hectares / year. This rate nearly tripled in the period 2009-2013, covering an area of 171.9 thousand hectares / year. In the following period (2013-2017), the rate of deforestation also increased to 189.3 thousand hectares / year. In the period 2000-2009, Indonesia's deforested areas were focused in West Indonesia (Sumatra and Kalimantan). While in the period 2009-2017, the trend of deforested areas shifted further to Eastern Indonesia (Sulawesi, Maluku, and Papua).

In general, Papua's bioregion is dominated by logging concessions (HPH or now IUPHHK-HA). The abundance of natural forests has resulted in the area becoming a magnet for timber companies. In addition, there are around 2.5 million hectares of land that overlap among permits (IUPHHK-HA, IUPHHK-HT (past HTI), Plantation, and mining). The IUPHHK-

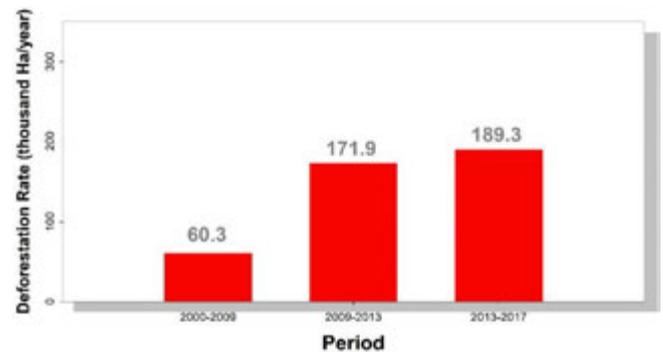


Figure 7 Deforestation rate in 3 periods (Source: the results of forest cover data processing of FWI)

HA has the highest concession area from other concessions, which is around 6.4 million hectares covering 15% of the total land area of the Papua bioregion, followed by mine covering 5.3 million hectares, 3.2 million hectares of plantation, and 1.2 million hectares of timber plantation (IUPHHK-HT).

Seeing the trends and the high potential of natural forests, it can be said that the remaining natural forests are currently very threatened. This is also marked by the increasingly massive development of infrastructure to support the mobilization of natural products from existing land-based industries or other new permits.

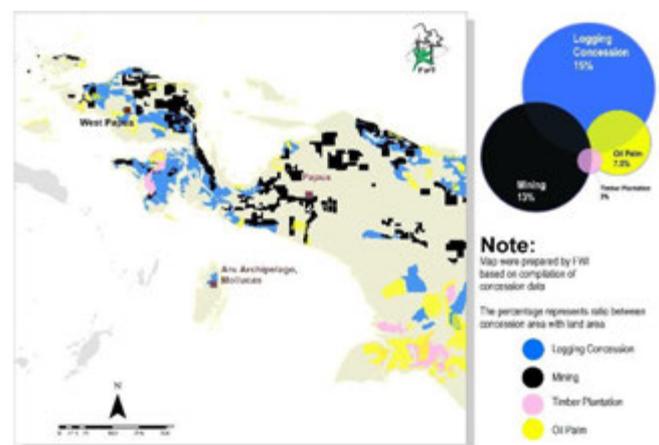


Figure 8 Land tenure in Papua Bioregion through forest and land concessions (Source: Data compilation of FWI until the year 2018)

Understanding Papuans and Their Lands

There are at least three basic explanations for the attachment of Papuan people to the nature that the majority are still strong. *First*, human relations with land and natural resources are complex and layered (Social, Cultural, Economic, Ecological, and Spiritual). So that in practice, it cannot be simplified in just one dimension. The separation of complexity and layers of relations will continually shake the joints of social, economic, political, and ecological sustainability. Papuans in practice also still have a variety of local knowledge resulting from long relationships with land, water, forests, mountains, seas, rivers, lakes, and so on. Of course, there are dynamics and processes that constantly change in line with the problems and challenges faced. In the view of Papuans regarding nature, God and spirit as a whole that surround human life is a manifestation of the monism which has a positive meaning in efforts to preserve nature. Humans are part of nature, so that if human destroy nature, it means destroying themselves. Papuan identifies nature with parents, so that land is considered as the mother (mama). Thus, it is clear that the Papuans have a special spiritual relationship with their land.

Second, the lands, nature, and agrarian sources are not fully commodities. Thus the management should not be left entirely to the market mechanism. The mandate and principles regarding land and agrarian in Agrarian Law Number 5 Year 1960 can be a basic reference to this view. This is the basis of the Papuan community to see the nature and space of their lives. So that the whole system of governance over the nature is not entirely for commercial purposes.

Cosmologically, the value of land culture as a mother in Papua shows the insight of Papuan cosmology that is more inward looking philosophy, which has the essence or concept of principles that maintain and guarantee a sustainable environment. This means that the relationship between the Papuan and their nature is a religion-magic relationship that is not merely a religion (because many Papuan are not religious), but a view of life that is highly dignified towards material in nature. This consists of two kinds of views : (a) Belief that some objects and plants have souls (b) Belief that objects or plants have an occult power (dynamism). The culture of "religion-magic" applies to various customary laws (including tradition of 'pantang larang') which regulate environmental preservation in the fields of forestry and agriculture, economics, history, and customary rights in Papua.

Third, the problems with the agrarian dimension are historical. Current tenure and agrarian problems in the Papuan community are in part or in a whole the accumulation of long problems of national political-economic policies that in line with the history of the establishment of the Unitary State of the Republic of Indonesia. So that tenure and agrarian issues in Papuan society must be seen in a critical historical perspective.

Papuans understand the history of human culture as episodes or certain chapters that are constantly changing. Events and actors from one chapter are replaced with actors from another chapter, which sometimes are not related to one another.

The majority of indigenous Papuans take and manage natural products directly for only their subsistence needs. The reason is that the geographic terrain is very heavy which many high mountains reach 5000 meters above sea level including many forests and pristine natural resources, and with limited accessibility. Thus, the indigenous people of Papua fully depend their lives excessively on the natural resources, according to their kinship and very strong and basic traditional wisdom and knowledge.

In general, there are several factors that influence the values of the traditional wisdom of the Indigenous Peoples of Papua, as follows: (1) The process of environmental adaptation enables Papuan to know and understand the nature of their surroundings. Based on this experience, Papuans develop equipment as a connection to their physical limitations, choosing the right ways to respond to the challenges they face. Furthermore, Papuans began to try to put themselves in the network of life. (2) The development of Papuan culture is Papuans think symbolically. Symbols are developed and given meanings that are sometimes detached from the original meaning. Papuans try to understand their environment and overcome problems that arise because of their attitudes and behavior for cosmic balance. With the above perspective, some local wisdom of the Papuan community was born, including: (1) The value of moral unity with the nature. The unity between morals and nature is revealed in their statement, "... the occurrence of a number of land use conflicts in Papua is a concern about the use of sacred customary areas which can bring various natural disasters such as floods, droughts, pests, crop failures, absence of marine catches, etc. That is because of the errors in their inner attitudes and behavior towards nature ". (2) The cultural value of land as mother which shows that there is a harmonious relationship with the land and nature as their living space⁴.

However, there are pitfalls that must be avoided in defining and understanding indigenous peoples, including the indigenous people of Papua. There are at least three things. (1) Romantic attitude. One attitude that pawns the "all-past" of indigenous peoples is definitely better and certainly suitable in all ages. That is seeing one particular social phenomenon as "given" and often ignorant of the reality of dynamics and changes that accompany every reality of the times, including indigenous peoples as social entities that live within certain boundaries of space and time. (2) Glorification attitude. One attitude is that what is all about indigenous peoples is "holy" and free from wrong. The specificity and uniqueness of indigenous peoples are a distinctive feature and perhaps an advantage over other social communities. But sociologically and anthropologically, indigenous people are a community of people who live in the world "profane and non-profane" at the same time, like other social humans. (3) "Monoface" attitude. It is an attitude that is sociologically see indigenous people as a "single-faced" entities. In reality, indigenous peoples have various diverse structures, layers, and social "classes" by gene-based, kinship, ethnicity, economy, politics, etc. When referring to indigenous women, for example, they will be faced with a variety of layers and social reality. There are indigenous women of wives of the traditional leaders, landless, blue-blooded, farmer and cultivator, poor, widow (chief family), etc. With this kind of grounding, it will guide the

⁴ Lebih jauh lihat, <https://bangazul.com/masyarakat-tradisional-papua-2/>

way to see indigenous people with a more critical perspective without having to lose respect for the various advantages possessed by indigenous peoples, which other social communities do not have.⁵

In terms of the variety of national development policies in Papua, they have at least contained "congenital defects" and have not changed fundamentally in three problems at once, as follows. (1) paradigmatic problem. It is still dominant that the nature of the development is based on economic growth and extraction on agrarian sources. Natural resources are economic assets and committed assets for global market services. The result is the creation of structural inequality and poverty which continues to be inherited. (2) Problem of political ignorance. The choice of types and forms of development that are still dominant top down. It ignores all dimensions of locality, because it is arranged "unilaterally" by the policy makers at governments' tables, both central and regional government who still do not really give space to "needs from below". (3) Problems with human rights violations and ecological sustainability principles. The lack of community involvement as the subject of development in Papua makes the Papuans still as objects and spectators of all development policy objectives (global, national, and local). As a result, the records of human rights violations are still quite high reported. Along with that, Papua's land with all its wealth, forests, sea, and nature continues to experience massive damage and pollution that threaten the sustainability of natural services for the next generation. This is what was found in several study areas of Forest Watch Indonesia (2017-2018).

In the context described above in Papua, it is easy to explain the relationship between the process of land grabbing, deforestation, and humanitarian violence at the same time. Even more tragic is that this condition also occurs in indigenous community groups in almost all Papua land, both men and women, particularly related to the various policies of forestry and land investment. The spatial conditions of life that are mapped spatially over time, will be brighter and clearer at the root of the problem if the dimensions of the social-ecological and ecological crisis at the site level are integrated, and seen from time to time in a unified perspective. Not just for the purpose of correctly understanding, but also for agenda of fairer social change and transformation.

⁵ See, Cahyono, Eko, "Masyarakat Adat dan Ruang Hidupnya: Menegaskan Agenda Pasca Penetapan Hutan Adat", Newsletter Monitor, Edition 11, JPIK, 2018.

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