



FOREST PROTECTION EFFORTS AGAINST CONVERTING FOREST FUNCTIONS TO PALM OIL PLANTATIONS

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Abstract: The conversion of forest functions to oil palm plantations has often been carried out in Indonesia. Many factors motivate communities, individuals, and companies to do this. One of them is the economic factor. Investment in oil palm plantations is considered a promising investment and generates many profits. However, individuals or companies often need to pay more attention to ecological aspects and the impacts of the forest function's conversion. The consequences resulting from the transformation of forest functions will affect the environment in the short and long term. Forests that have many benefits and uses not only for humans but also for the habitat of animals and plants in them must be protected and preserved. The increasingly widespread conversion of forest functions results from fulfilling human desires and harming other living things, so the government is obliged to make an effort through prevention and mitigation so that the existence of forests and their sustainability are maintained and can continue to bring many benefits to living things.

Keywords: Forest Functions; Government; Oil Palm; Plantations; Transfer Of Functions

1. Introduction

A forest is an ecosystem unit in the form of a stretch of land containing biological natural resources dominated by trees in their natural environment, which cannot be separated from one another¹. Based on the function of the area, forests are divided into various types, namely protected forests, limited production forests, permanent production forests, and conservation forests. The different types of forests have the same functions and benefits; they both benefit all living things. Forests are the lungs of the world, producing oxygen to support living things' survival.² Protection of forest sustainability is important and deserves to be maintained because forests directly impact the ecosystems in them, including various types of flora and fauna.

¹ Republik Indonesia, "Undang-Undang Tentang Kehutanan," *Peraturan Pemerintah Republik Indonesia Nomor 26 Tahun 1985 Tentang Jalan* 4, no. 1 (1999): 1–5, <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwjWxrKeif7eAhVYfysKHcHWAOWQFjAAegQICRAC&url=https%3A%2F%2Fwww.ojk.go.id%2Ffid%2Fkanal%2Fpasar-modal%2Fregulasi%2Fundang-undang%2FDocuments%2FPages%2Fundang-undang-nomo>.

² Nirwasui Arsita Awang, Yusak B Setyawan, and Ebenhaizer L Nuban Timo, "Ekoteologi Fungsi Hutan Oenaek: Penyimpangan Paradigma Ekologis Menuju Perilaku Eksploitatif," *GEMA TEOLOGIKA: Jurnal Teologi Kontekstual Dan Filsafat Keilahian* 4, no. 2 (2019): 135, <https://doi.org/10.21460/gema.2019.42.423>.



At present, the function of the forest gradually begins to disappear and decrease. There are several places experiencing problems related to the environment, especially the forest area itself. Oil palm plantation area. At this time, regarding the protection of the forest itself, many problems arise. The security of forests is minimal, so it is a severe impact that must be paid attention to by the world. Clearing forest land is often carried out as a source of livelihood for a group of people, for entrepreneurs, and as a support for the country's economy³. With these conditions, the function of the forest, which was initially a place for its various ecosystems, has changed its position to become an expanse of oil palm plantations. The conversion of functions to oil palm plantations will hurt long-term life, namely a reduction in the supply of clean air for the environment, which acts as a reducer to the impact of CO₂ emissions. The existence of vegetation and trees is essential because it guarantees the balance of the ecosystem. Green plants are needed to capture CO₂ and release O₂ into the air⁴.

Regarding the problems arising from the transfer of forest functions, the government must make the best efforts to maintain the sustainability of the forest itself. So, there will be a few environmental problems that will arise later and impact the future. Efforts to protect and preserve forests are not only the duty of the government but all citizens of Indonesia.

2. Research methods

The research method that we use is descriptive. The descriptive method is a research method that aims to solve problems by describing, describing, and explaining based on the facts that happened in the field. By this method, we can discover the issues with the expansion of oil palm plantations by converting forest areas.

3. Discussion

3.1. Functions and Benefits of Forests for Life

A forest is an area with various types of plants, ranging from small plants to even large plants or trees. It contains trees, shrubs, vines, rattan, bamboo, wild animals, and various species living in the area. The forest consists of land and water. With the existence of a forest area, the area around the forest will be peaceful, calm, and peaceful. Forest as an ecosystem is a reciprocal relationship between living things and their environment, where living things need each other. A food chain occurs and contains oxygen used for breathing for every living thing.⁵

As we already know, forests are the lungs of the earth where various animals live, trees, mining products, and other resources that we can get from forests, which are priceless for humans⁶. Forests also play an essential role in multiple fields, so they significantly impact human welfare,

³ Clearestha Nakita and Fatma Ulfatun Najicha, "Pengaruh Deforestasi Dan Upaya Menjaga Kelestarian Hutan Di Indonesia," *Ius Civile: Refleksi Penegakan Hukum Dan Keadilan* 6, no. 1 (2022): 92, <https://doi.org/10.35308/jic.v6i1.4656>.

⁴ Ristiani Eva Saputri, Gunggung Senoaji, and M Fajrin Hidayat, "Estimasi Serapan Dan Emisi Karbon Dioksida Dari Sektor Rumah Tangga Di Desa Tanjung Harapan Jaya Kabupaten Bengkulu Utara Propinsi Bengkulu," *Journal of Global Forest and Environmental Science* 2, no. 1 (2022): 51–60.

⁵ A Arif, "Analisis Yuridis Pengrusakan Hutan (Deforestasi) Dan Degradasi Hutan Terhadap Lingkungan," *Jurisprudentie* 3, no. 1 (2016): 33–42, <http://103.55.216.56/index.php/Jurisprudentie/article/view/3622>.

⁶ M.Si RAHMAWATY S.Hut., "HUTAN : FUNGSI DAN PERANANNYA BAGI MASYARAKAT Program Ilmu Kehutanan," 2004, 1–7.

both the benefits that are given directly in the economic development and other natural resources that are felt indirectly. Forests are a potential natural resource that benefits the country's foreign exchange. In addition, forests have various functions that positively impact the continuity of human life.⁷ Forests in Indonesia are known as tropical rainforests, with a variety of rare plants and animals only found in them. Some of the roles of forests in life are:

a. The Function of the Forest Against the Air

As we know, the more population growth on earth, the more pollution that results from human activity, one of which is carbon dioxide gas (CO₂) emitted by vehicles, contributing to air pollution. If carbon dioxide (CO₂) levels are excessive, it can affect human health, including the respiratory and metabolic systems, and cause death.

With the existence of forests that are still maintained, of course, that is an essential thing in life. Among them is an air absorber of carbon dioxide gas (CO₂). The reduction of CO₂ from the atmosphere is the absorption of CO₂ by plants through photosynthesis that occurs in the leaves containing chlorophyll. Therefore, the high photosynthetic process of a plant is synonymous with the increased ability to absorb CO₂ from the air.⁸ So, it can be concluded that the role of forests is to provide clean and cool air for the environment and to reduce global warming.

b. The Function of Forests Against Soil and Water

Forests function not only as a supplier of oxygen but more than that. Forests that are still beautiful and sustainable certainly have various types of trees. The leaves that fall from the tree and then rot and decompose serve to fertilize the soil. So that if the soil is fertile, it can be processed to be planted with trees again.

Forests that are still preserved also function as a means of absorbing water that enters the soil, so the results of this water absorption can be stored and used as a reserve. So that the water reserves can be used when the dry season arrives, namely for human activities such as eating, drinking, bathing, and so on. -other.

c. The Function of Forests in the Economic Sector

In addition to the function of forests as the world's lungs, forests also have positions in the economic field; various types of natural wealth are contained within the forest area. Indonesia has a large enough forest, so industries that produce from wood have good prospects—accompanied by paying attention to environmental aspects without destroying the forest itself. The commodity engaged in the processing of forest products is in the form of wood processing. Wood processing in the form of furniture is one of the strategic commodities for the Indonesian economy. Several criteria make furniture a strategic

⁷ Rahajeng Kusumaningtyas and Ivan Chofyan, "Pengelolaan Hutan Dalam Mengatasi Alih," *Perencanaan Wilayah Dan Kota* 13, no. 2 (2012): 1–11.

⁸ Muhammad Mansur, "Potensi Serapan Karbondioksida (CO₂) Pada Beberapa Jenis Tumbuhan Lantai Hutan Dari Suku Araceae Di Taman Nasional Gunung Halimun- Salak, Jawa Barat," *Jurnal Biologi Indonesia* 8, no. 2 (2017): 269–78, https://e-journal.biologi.lipi.go.id/index.php/jurnal_biologi_indonesia/article/view/3050.

commodity because furniture is a product with high added value and global competitiveness due to the large number of requests from foreign countries.

Countries that are the main export partners of wood in the form of furniture from Indonesia are the European Union, China, Japan, the United States, India, Saudi Arabia, Australia, the Republic of Korea, Turkey, and Brazil.⁹ The existence of these export activities certainly has an economic impact on the country's foreign exchange. And forests produce many more benefits that can impact and benefit the economy.

3.2. Factors and Background of Converting Forest Functions to Palm Oil Plantations

The change in function of the forest land itself is a change that was initially a forest area and then turned into oil palm plantation land. So, the initial part of the forest area is lost; in this case, land conversion is a change in an area that was initially a forest area into an industrial or plantation area. The plantation sector is the main factor or cause of the rampant conversion of forest land.

The rise of forest conversion activities into oil palm plantations is not something new to hear. During the reign of the New Order in 1980, to be exact, the area of oil palm plantations reached 29,560 hectares; in 1994, the size of oil palm plantations increased to 1,804,600 hectares with production of 4,804,600 tons of crude palm oil (MSM).¹⁰ There is also data for 2010 showing that plantation area has risen again to nearly 8.0 million hectares, consisting of 3.1 million hectares owned by the private sector, 1.2 million hectares owned by PTPN, and 3.7 million hectares owned by the people. With such an area, Indonesia can produce 22 million tonnes of Crude Palm Oil (MSM) annually.¹¹ From these data, it can be seen that the palm oil industry has developed quite rapidly. With so many individuals or companies deciding to engage in oil palm plantations, this has resulted in them competing to get more land for their investment. By trying to share ways, one of which is asking for support from the government to permit the conversion of forest functions to oil palm plantations.

Government policies also influence land use change. As one of the factors that caused the shift of forest areas to plantations, this was also motivated by government policies, so it enlarged the difference in the function of the forest itself with the enactment of Law Number 41 of 1999 concerning Forestry and the latest revised Law Number 31 2014 concerning procedures for granting and expanding IUPHHK¹². With the policy of forest land conversion based on legal force, forest areas must be sacrificed to achieve economic needs. The Ministry of Forestry is increasingly issuing permits to use forest land for plantations covering an area of 6.49 million ha until 2015 - 2018¹³. The government's reason for permitting the conversion of forests into oil palm plantations is because oil palm is an industry believed to be able to help the

⁹ Zhou, Yang, and Wang.

¹⁰ Yanis Maladi, "Kajian Hukum Kritis Alih Fungsi Lahan Hutan Berorientasi Kapitalis," *Dinamika Hukum* 13 (2013): 109–23.

¹¹ Maladi.

¹² Maha and Masbar, "Pengaruh Alih Fungsi Lahan Kawasan Hutan Terhadap Perekonomian Indonesia."

¹³ Uwendi Acin, Emi Roslinda, and Sudirman Muin, "Perspesi Masyarakat Terhadap Perubahan Pemanfaatan Lahan Hutan Menjadi Perkebunan Sawit Di Desa Paku Raya Kecamatan Kuala Behe Kabupaten Landak," *Jurnal Hutan Lestari* 9, no. 3 (2021): 417–29.

government overcome the problem of poverty in Indonesia. Because the palm oil industry is a renewable natural resource with a high price, the wider the plantation owned by an individual or company, the greater the economic value obtained. Palm oil has many benefits in the industrial sector, including fuel, food, cosmetics, etc. The nature of palm oil is multifunctional, economical, easy to produce, and can be renewed, making it a commodity that is in great demand by international trade.

3.3. The Impact of Converting Forest Functions to Palm Oil Plantations

The rapid development of the Indonesian oil palm plantation industry from year to year certainly impacts the welfare of individual communities and companies that can provide job vacancies for the community. So that this impact is an excellent driving factor in the economic field, but the conversion of forests into oil palm plantations seriously impacts life and the environment. The loss of forests, without us realizing it, has extraordinary effects. One is the loss of places for wild plants and animals in the forest area because a vast expanse of oil palm plantations has replaced their habitat. So, it can be concluded that oil palm plantations hurt the economic sector and welfare, but the positive impact is much worse on the surrounding environment in the long term.

a. The Positive Impact

The impact of oil palm plantations in the economic field supports economic factors in increasing people's welfare and reducing poverty. Oil palm development positively impacts economic growth, as indicated by investment, output, and foreign exchange changes. Oil palm-based industries also significantly contribute to household welfare from the palm oil business.¹⁴ Besides that, the community's positive effect with the existence of companies engaged in the oil palm plantation sector can provide jobs for the community.

Indonesia itself is a country that is very dependent on the role of exports, especially in natural resources. One of them is the export of CPO from palm oil, which positively impacts the country's economy. The highest export market for Indonesian palm oil is in five central countries: India, China, the European Union, Africa, and Pakistan. These five countries are the countries with the most significant demand for palm oil. With a contribution of 62% to all other export destination countries¹⁵. These export activities provide benefits to the country's economy. The total distribution of palm oil exports in the five central export destination countries is 15.1 billion (US\$). The most extensive allocation of exports by country of destination was China, amounting to 4.61 billion (US\$). Distribution of exports to India is in second place, namely 3.69 billion (US\$)¹⁶. This certainly provides welfare to both the state and society.

b. The Negative Impact

¹⁴ Rany Utami, Eka Intan Kumala Putri, and Meti Ekayani, "Economy and Environmental Impact of Oil Palm Plantation Expansion (Case Study: Panyabungan Village, Merlung Sub-District, West Tanjung Jabung Barat District, Jambi)," *Jurnal Ilmu Pertanian Indonesia* 22, no. 2 (2017): 115–26, <https://doi.org/10.18343/jipi.22.2.115>.

¹⁵ Carina D Patone, Robby J Kumaat, and Dennij Mandej, "Analisis Daya Saing Ekspor Sawit Indonesia Ke Negara Tujuan Ekspor Tiongkok Dan India," *Jurnal Berkah Ilmiah Efisiensi* 20, no. 3 (2020): 22–32.

¹⁶ Patone, Kumaat, and Mandej.

However, given the significant function of the forest itself in the economy and one of the factors that supports the welfare of the Indonesian people, the palm oil industry also has many negative impacts. Among them are the loss of function of the forest itself, environmental degradation, and damage to various types of flora and fauna. The palm oil industry faces increasingly complex challenges, especially concerning environmental issues. The expansion of oil palm plantations will eventually transform forest areas, especially peatlands. Changes and conversion of functions from forest areas to oil palm plantations have impacted the biophysical environment, reducing water sources and decreasing the quality of clean air and water.

As we know, carbon dioxide gas released by motorized vehicles is one of the air pollutants that continues to occur daily. So, trees are needed to trap CO₂ and release O₂ back into the air to reduce air pollution¹⁷. The impact of forest destruction can also impact the destruction of the natural environment and affect the climate globally; other results can be in the form of landslides, floods, and the greenhouse effect, which causes temperatures to increase.¹⁸ This causes the sun's heat to be trapped in the earth, causing global warming. If this happens continuously, it will cause climate change, worsening human survival.

3.4 Forest Protection Efforts That Can Be Done To Prevent More Forest Function Transfers.

Forest protection is the responsibility of all Indonesian citizens, not just the government. However, as a regulator and policy maker, the government has an active role that must be set as an example by the community. The government is making efforts to prevent the transfer of functions.

The government has an essential role in trying to save the world's forests, especially Indonesia's forests, by making policies to create the management of good forests and impact the welfare of the people of a nation, especially in Indonesia. Of the many sectors in Indonesia, the forestry sector contributes the most to other industries, such as the energy, industrial, waste, and agriculture sectors¹⁹. Because of that, the government must make efforts to reduce emissions caused by the conversion of forests and peatlands. So, the existence of a government policy that targets emission reductions of 26 percent is inconsistent with the permits for planting oil palm on peatlands that are still occurring²⁰. The government must be able to manage the conversion of forest functions by paying attention to land that can be converted into roles; forest conversion must prioritize land that is already critical and unproductive²¹.

¹⁷ Saputri, Senoaji, and Hidayat, "Estimasi Serapan Dan Emisi Karbon Dioksida Dari Sektor Rumah Tangga Di Desa Tanjung Harapan Jaya Kabupaten Bengkulu Utara Propinsi Bengkulu."

¹⁸ Oksana, M Irfan, and M Utial Huda, "Pengaruh Alih Fungsi Lahan Hutan Menjadi Perkebunan Kelapa Sawit Terhadap sifat Kimia Tanah," *Jurnal Agroteknologi* 3, no. 1 (2012): 29–34.

¹⁹ Ari Wibowo, "Konversi Hutan Menjadi Tanaman Kelapa Sawit Pada Lahan Gambut: Implikasi Perubahan Iklim Dan Kebijakan," *Jurnal Penelitian Sosial Dan Ekonomi Kehutanan* 7, no. 4 (2010): 251–60, <https://doi.org/10.20886/jpsek.2010.7.4.251-260>.

²⁰ Wibowo.

²¹ Wibowo.

To prevent the rampant conversion of forest functions, the government can carry out protection measures such as establishing and preserving forest areas, controlling land use permits, imposing a moratorium on forest conversion, strengthening law enforcement, holding public awareness campaigns on the importance of forests and the importance of participating in conserving forests. , the government can also collaborate with the international community. These efforts must be supported by comprehensive policies made by the government/authorized officials, strict supervision, and active participation in the protection of forest areas from not only the government but also the community.

Some of the efforts made by the government are to create statutory regulations such as:

- Forestry Law No. 41 of 1999
- Law on Land Acquisition for Development for Public Interest Number 2 of 2012
- Job Creation Law Number 11 of 2020
- Government Regulation related to Procedures for Changing the Designation and Function of Forest Areas Number 104 of 2015
- Government Regulation on the Implementation of Land Acquisition for Development for Public Interest Number 19 of 2021
- Government Regulation on Forest Implementation Number 23 of 2021
- Regulation of the Minister of Environment and Forestry concerning Guidelines for Borrowing and Using Forest Areas Number P.50/Menlhk/Setjen/Kum.1/6/1016

One form of government protection efforts is by forming laws and regulations related to forest management and forest function conversion, one form of which is the existence of Law Number 41 concerning Forestry, which was made in 1999. The implementation of Law Number 41 of 1999 concerning Forestry as an instrument of forest protection has yet to succeed in maximally protecting forests from damage caused by human actions²². This means the government has tried to make arrangements even though implementation is not feasible. The lack of performance related to forestry laws occurs due to a lack of public awareness of the importance of following the regulations that have been made. Findings illustrate the fading sense of forest belonging attached to the soul of every individual community living in villages supporting forest areas.²³

In the Law on Forestry Number 41 of 1999, precisely in Article 19, 3 (three) mechanisms for using Forest Area land for development purposes outside forestry activities or commonly called forest function conversion, namely: exchange of forest areas, release of production forest areas that can be converted and borrow using forest areas. Article 38, paragraph (1) also states that the use of forest areas for development outside forestry activities can only be carried out within production and protected forest areas.

The Government Regulation on Forest Implementation issued in 2021 Number 23 is a derivative of the Job Creation Law. This regulation regulates various calm rules on forestry

²² Muhammad Yamani, "Strategi Perlindungan Hutan Berbasis Hukum Lokal Di Enam Komunitas Adat Daerah Bengkulu," *Jurnal Hukum Ius Quia Iustum* 18, no. 2 (2011): 175–92, <https://doi.org/10.20885/iustum.vol18.iss2.art2>.

²³ Yamani.

procedures in Indonesia. As in the code on the release of forest areas (Article 55), rules on the release of Forest areas are carried out in convertible production forests (Article 58). use of part of the Forest Area for development purposes outside forestry activities without changing the function and designation of the Forest Area (Article 1 number 31). The use of Forest Areas for development purposes outside Forestry activities can only be carried out for activities that have unavoidable strategic objectives (Article 91) and for development purposes outside Forestry activities for public interest, especially priority projects of the Central Government, provided that in the case of land acquisition carried out by government agencies, through the Forest Area Release mechanism, or if land acquisition is carried out by other than government agencies, carried out by a forest release mechanism or a Forest Area Use approval mechanism (Article 94 paragraph (3). Government Regulation No. 23 of 2021 is also in sync with Government Regulation on Implementing Land Acquisition for Development for Public Interest Number 19 of 2021.

The Minister of Environment and Forestry is authorized to issue Forest Area Release Approvals and Forest Area Use Approvals regulated in Article 63 paragraph (2), Article 68, Article 70, and Article 96 of the Forestry Implementation Law Number 23 of 2021. The law about forestry that regulates forest conversion may be quickly followed by modern society, but forest conversion can occur anywhere, including in villages that still adhere to customs. The existence of indigenous peoples makes the government also have to make policies on forests so that forest conversion that needs to be done illegally or adequately can be avoided. Local law is one example of protection efforts that local governments, such as Hamlet Heads and Customary Stakeholders, can carry out in this case. For instance, as found in the indigenous community of Bengkulu, every member of the clan of the hamlet resident must apply to open the forest to the owner/employee. Then, the request is forwarded to the head of the hamlet (*Baginde/Depati/Kerio/Ginde/Proatin*)²⁴. The indigenous people there have a local law called ***Ngubungi gawai***, which requires everyone who is a local customary community to report any incident that violates forestry law, such as clearing clan forests without permission or forest theft), without permission to collect forest products without the owner's consent, and other activities to government functionaries *clan*. If someone knows of the unlawful act but allows it and is sanctioned, this rule is called *Device Cravings*. Practices such as *contact with the device* and *Device cravings* contain a spirit that involves individuals or communities to participate in maintaining forests from destruction.

In essence, forest conversion has a good purpose, as stated in Article 40 of Law Number 41 of 1999 concerning Forestry that forest and land rehabilitation is intended to maintain and improve the function of forests and land so that their carrying capacity, productivity, and role in supporting Life is maintained. The negative impacts arising from forest conversion are the destruction of forests and ecosystems in the interpretation of Law on Forestry Number 41 of 1999 and other laws and regulations governing land use change in its implementation as ineffective and needs to run correctly. As for other efforts that can be carried out to protect forest areas as stipulated in articles 46 to 51 of Law NO. 41 of 1999 are:

²⁴ Yamani.

a. Through a socialization approach to the community about the importance of forests

One of the efforts to prevent and provide protection for forest areas is by providing an understanding to the people in villages, especially villages with customary forest areas, how essential forests are for life. Implementing this system is one of the systems that directly provides knowledge to individual communities close to forest areas. With the wisdom given to community leaders, these customary institutions can understand how to use forest areas so that they do not exceed the land boundaries determined by law for forest areas.

In the case above, of course, this must be accompanied by government monitoring efforts, including placing forest rangers in every forest area to prevent encroachment on forest land by the community or companies.

b. Make a forest conservation policy

Policies made by the government or created by customary institutions are the most important driving factors in protecting the forest area. Of course, the existence of policies that have been made must be accompanied by sanctions that provide a deterrent effect for violators of these policies so that the same incident does not happen again in the transfer of land use, which is a forest area.

c. Building partnerships between the government and the community in protecting and managing forests well.

The partnerships that are carried out are cooperation or forming the bodies needed to carry out efforts to protect the forest. One is developing volunteers from the local community who are provided with facilities and infrastructure by the government to support performance in protecting forest areas. So that if there is a violation or violation in the management of the forest area, it can be imported to the authorities in dealing with this matter.

4. Conclusion

Forests, as the world's lungs, are essential for us to protect. With forests that are still maintained, this can have a huge impact that we can feel. One of the things that we can feel the effect of every day is the result of tree photosynthesis, which produces clean air for life. This is one small impact that we can handle. The existence of forests also affects natural factors globally, including the global warming factor. Forests that are still good and well-maintained can impact reducing global warming. This is a small part of the positive impact of having forests. With such a good impact given by forests on life, therefore, don't only prioritize economic factors for the benefit of individuals and companies so that without us knowing it, the increasing number of lands being converted to oil palm plantations creates a separate threat to survival. We can see recently increasing global warming, the occurrence of flash floods, and the extinction of wildlife. With these incidents, efforts are needed to protect and maintain forests so that they are born and provide unlimited benefits for the environment and the continuation of living things on this earth.

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