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Detrimental impact of Indonesian food estate policy: Conflict of norms, destruction of protected forest, and its implication to the climate change

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Abstract. In response to the food crisis threat due to the Covid-19 pandemic, the Indonesian Government initiates a national food supply enhancement program recognized as food estate which was then established as a part of National Strategic Programs. To maintain its implementation, the Indonesian Ministry of Environment and Forestry through PermenLHK 24/2020 allows the legalization of forest land utilization, including the protected forest land for the food estate program. This study aims to analyze emerging conflict norms related to the utilization of the protected forest in Indonesia's food estate program. The method used is normative legal research conducted by reviewing various forestry-related legal instruments and principles in Indonesia. The main findings reveal that the legalization of the utilization of protected forests for food estate projects by PermenLHK 24/2020 does not meet legal certainty and contradicts the norms incorporated in the hierarchical higher related regulations. In connection to climate change, the legalization of utilizing protected forests for the food estate program will open up opportunities for deforestation and encourage degradation of the protected function of these forests. The forestry sector has become one of the largest contributors to greenhouse gas (GHG) emissions in Indonesia, with deforestation and land degradation as the root of the problem. The implication of food estate becomes a regressive action for the realization of Indonesia's commitment to reduce GHG emissions from the forestry sector up to 17.2% with unconditional mitigation scenario (CM 1) and 23% with conditional mitigation scenario (CM 2) by 2030.

1. Introduction

In March 2020, the Food and Agriculture Organization (FAO), through its report, gave a warning about the threat of a global food crisis due to the 2019 Coronavirus Disease Pandemic (Covid-19) [1]. In response to this warning, the Government of Indonesia created a national food supply improvement program recognized as the food estate [2]. This program was later designated as one of the National Strategic Programs through Presidential Regulation No. 109 of 2020 concerning the Third Amendment to Presidential Regulation No. 3 of 2016 on Accelerating the Implementation of National Strategic



Projects [3]. Nevertheless, the implementation of this policy will exacerbate the loss of forest coverage which leads to the acceleration of climate change.

Food estate is a food development concept that integrates agriculture, plantation, and livestock in a relatively large area [4]. The food estate development program is nothing new in Indonesia, several similar programs have been implemented before, namely Peatland Development Project (PLG) in Central Kalimantan (1995-1999), Merauke Integrated Food and Energy Estate (MIFEE) in Merauke Regency, Papua (2010) and Delta Kayan Food Estate in Bulungan Regency, East Kalimantan (2011) [5]. However, these projects failed and could not meet the government's expectations [3][6].

Not only failed in production these food estate projects also left a destructive impact on the environment. The destruction of peatlands in the ex-PLG area caused the worst peatland fires ever recorded in Indonesia which occurred in 1997 [7]. The project is even touted as one of the biggest environmental disasters in Indonesian history [8].

To support the implementation of the new food estate program, the Ministry of Environment of the Republic of Indonesia (KLHK RI) through the Minister of Environment and Forestry Regulation Number 24 of 2020 concerning Provision of Forest Areas for Food Estate Development (PermenLHK 24/2020) provides the legalization of the utilization of forest land for the food estate program, including the protected forests. This legalization was later strengthened by Government Regulation Number 23 of 2021 concerning Forestry Management (Government Regulation on Forestry Management/Peraturan Pemerintah Penyelenggaraan Kehutanan) which regulates the utilization of protected forests for food estate development with the mechanism of the Use of Forest Areas (Penggunaan Kawasan Hutan) for development purposes outside of forestry activities [9].

This research will normatively analyze the conflict of norms related to the use of protected forests in Indonesia's food estate program and how legalizing the use of protected forests will open up opportunities for deforestation and forest function degradation which has implications at increasing Indonesia's greenhouse gas (GHG) emissions.

2. Research methods

This research is normative legal research that uses some approaches such as statute and case study approaches. The data used are primary legal materials obtained from relevant regulations and secondary legal materials obtained from various related works of literature. They are then analyzed descriptively to reveal the issues as mentioned in this paper.

3. Results and discussion

3.1. Normative review of protected forest utilization in Indonesia's food estate program.

Article 2 of the PermenLHK 24/2020 stipulates that the provision of protected forest areas for food estate development can be carried out with the mechanism of determination of Forest Areas for Food Security (KHKP) stipulated by the minister upon application [10]. There are several normative issues related to the legalization of protected forest utilization which will be explained below.

3.1.1. Conflict of norms on the utilization of protected forests for the food estate program. Under the provisions of Law Number 41 of 1999 concerning Forestry as amended by Government Regulation in Lieu of Law (Perpu) Number 1 of 2004 which was enacted into Law through Law Number 19 of 2004 (Forestry Law/UU Kehutanan), and was later amended again by the Omnibus Law Number 11 of 2020 concerning Job Creation, the protected forest is defined as a forest area that has the main function of protecting life support systems to manage the water resources, prevent flood, control erosion, prevent seawater intrusion and maintain soil fertility [11].

In order to fulfill and maintain this definition, Article 26 Paragraph (1) of the Forestry Law regulates that the utilization of protected forest can only be conducted in the form of area utilization, environmental services and collection of non-timber forest products. These three types of utilization must be carried out without damaging the environment and not reducing the main function of the

protected forest [11]. Through these provisions, it can be seen that the Forestry Law has constructed governance norms that prioritize the principles of protection and sustainability in protected forest areas which in essence have a fundamental function of the forest.

Article 38 of the Forestry Law then provides an exception for the use of forest areas for development purposes outside of forestry activities without changing the main function of forest areas. The use of the forest area is determined selectively, activities that can cause serious damage and result in loss of forest function are strictly prohibited [11].

Meanwhile, under the provisions of PermenLHK 24/2020, protected forests that are no longer have a fully protective function can be used for food estate development. In fact, in terms of KHKP management, a Ministerial Decree on KHKP Management can be applied as a Timber Utilization Permit [10]. These provisions have certainly contradicted the norms regarding the management of protected forest areas that have been established in the Forestry Law.

Food estate does not comply with the limitation and criteria of the three forms of the protected forest utilization that have been stipulated by the Forestry Law. In addition, accommodation for development interests selectively with strict conditions, which do not reduce the main function of the area; is carried out for the welfare of the community; at the same time is raising public awareness to maintain and improve forest protection functions, is being neglected by the enactment of the KHKP determination as a Timber Utilization Permit.

3.1.2. Legal uncertainty regarding various provisions on the utilization of protected forests for the food estate program. Article 19 Paragraph (2) of PermenLHK 24/2020 stipulates that the provision of protected forest areas for food estate development carried out through the KHKP determination mechanism can only be carried out in protected forest areas that are no longer have a fully protective function [10]. PermenLHK 24/2020 does not explain the definition and criteria of a protected forest that is no longer has a fully protective function, nor does it explain how the process of determining a protected forest area is not suitable for a protective function anymore. Such definition, criteria and determination are also not regulated in other laws and regulations, giving rise to legal uncertainty.

In Government Regulation on Forestry Management, provisions regarding the criteria of a protected forest can be found in Article 31 Paragraph (3) Letter b. However, this legal instrument does not stipulate the opposite criteria, namely in what terms and conditions a protected forest area is said to have partially or totally lost its protective function [9].

Another legal uncertainty related to the utilization of protected forests for the food estate program is the strategic environmental assessment instrument (KLHS). Article 4 Paragraph (6) PermenLHK determines KLHS/ Rapid KLHS (KLHS Cepat) as one of the technical requirements for the application for the determination of the KHKP [10]. There are at least two uncertainties regarding this provision.

First, there is no comprehensive regulatory basis that regulates how the Rapid KLHS will be carried out [6]. In fact, KLHS is an important instrument for the prevention of environmental damage, this makes the existence of the Rapid KLHS needs to be studied further and becomes a common concern. Second, in Government Regulation on Forestry Management, the Rapid KLHS instrument then does not become an option on the technical requirements for the application of the KHKP determination, it is not even mentioned at all. [9]. This of course will lead to obscurity regarding the validity of using the Rapid KLHS.

3.1.3. The enactment of the ministerial decree on the management of the KHKP as a permit for timber utilization. Article 30 Paragraph (1) PermenLHK 24/2020 determines that in terms of forest utilization KHKP management there is timber utilization, Ministerial Decree concerning the stipulation of KHKP applies as Timber Utilization Permit (IPK) [10]. A similar provision is also regulated by Article 94 Paragraph (2) of the Forestry Administration Regulation [9].

Apart from causing a conflict of norms as explained above, the enactment of the Ministerial Decree on the Management of the KHKP as an IPK will open up opportunities for deforestation since trees in the protected forest are legal to be felled on the basis of that determination of KHKP which acts as the

IPK. It should be noted that protected forests have the main function of protecting life support systems, regulating water management, preventing flooding, controlling erosion, and so on [11]. This function will not be maintained if the trees in it can be felled freely [6]. This surely needs to be a major concern.

3.2. Threat of destructive impact on protected forest utilization for food estate program.

The conversion of protected forests into food estate areas (KHKP) poses a threat to the future of forest coverage in Indonesia. Land clearing activities for food-estate land will contribute to the escalation of gross deforestation which permanently changing the natural forest coverage without estimating the regrowth and forest plantations that simultaneously contribute to the forest degradation due to the decreasing quantity of forest coverage and carbon stock as the impact of logging activities.

Furthermore, the land opening activities for food estate through burning the forest as a method of land clearing will worsen the possibility of intense forest and land fire contributing to hotspot distribution. It is known that the development of the Food estate program will be located in the ex-PLG project in Kalimantan and Pulang Pisau Regency within the area of 770.600 ha [12].

The indication of forest and land fire in such permit has been corroborated by the hotspot distribution data during 2017-2019 which shows that it is indicated that there was the highest hotspot in Berau, Kutai Timur, and Kutai Kartanegara in Kalimantan caused by the high prevalence of agricultural activities which is the extensive farming system by land-clearing to burn rice plants [13]. Such previous studies shall be utilized as the consideration basis for stakeholders to preview the impact of food estate policy to ensure that such policy does not contribute to the higher prevalence of forest and land fire.

The deforestation and land degradation issue as the result of food estate policy has neglected article 5 of the Paris Agreement which encouraged each party to implement and support formulating policy approaches and positive incentives for activities relating to reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries which are recognized that forest containing vegetations is one of the primary components of carbon sinks [14].

The statistic of National GHG Emissions in 2000-2018 by the Director General of Climate Change (DJPP) of KLHK RI shows that the Forestry and Other Land Use (FOLU) sector together with peat fires are one of the largest contributors to Indonesia's GHG emissions. Deforestation and forest degradation alone contribute around 60% of GHG emission production in the forestry sector [15].

The number of GHG emissions caused by deforestation and forest degradation over the last 1 decade, based on the DJPP statistics tends to fluctuate with the highest figure in 2015, which was 283,929 GgCO₂e. 2015 marked the worst period in the history of forest and land fires in Indonesia for the last 18 years. In the following years, the trend of emission production from deforestation and forest degradation based on that statistic has decreased, but the emission production rate cannot be called low. The latest 2018 data shows emissions from deforestation and forest degradation of 175,994 GgCO₂e [15]. The increasing rate of GHG emissions will accelerate climate change with the various impact that already and continue to affect nature and human life.

The government of Indonesia shall recall, that it is their primary commitment to reduce GHG emission by 29% in 2030 with business as usual scenario, and 41% with international cooperation scenario (up to 17.2% with unconditional mitigation scenario (CM 1) and 23% with conditional mitigation scenario (CM 2) from forestry sector) with emission baseline in 2010 through the policy of Low Carbon Development (PRK) initiative to integrate climate action to the national development agenda which ambitiously targeted Indonesia to reduce its GHG emission by up to 43% by 2030 [16,17]. Nevertheless, such ambitions do not take into consideration especially on forming policies such as the food estate which consisting the primary contributor of reducing GHG; Forest protection vs land clearing activities as its integral part.

4. Conclusion

The legalization of protected forest utilization for the food estate program has resulted in various problems. Normatively, as a legal basis for this legalization, PermenLHK 24/2020 causes a conflict of norms with related regulation that is hierarchically higher, as well as creates a number of legal uncertainties. Regarding the environment, the use of protected forests will open up opportunities for deforestation and forest function degradation, which has implications for increasing Indonesia's GHG emissions and ultimately worsening the conditions of climate change.

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