

MORATORIUM ON OIL PALM: ECOLOGICAL RECOVERY OR ECONOMIC SLOWDOWN?

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Abstract: The aims of this study are to determine the factors that affect the moratorium policy and its effect on the national production of palm oil. This study used an in-depth interview with pairwise comparison questionnaire to experts. Data were analyzed using Analytical Network Process (ANP), consisting of three stages (model construction, model quantification, and analysis). The results showed that law enforcement, sustainability, conflict resolution, deforestation and land conversion were factors that influence the success of the moratorium. The various problems in these factors indicate that the moratorium cannot be done optimally. During six years of its implementation, the moratorium impact on the sustainability of palm oil production in Indonesia. Evaluation of moratorium is needed by using quantitative data. Forest deforestation due to oil palm plantation can be used to support the policy analysis.

Keywords: Conflict resolution, deforestation, law enforcement, sustainability



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Oil palm is one of the plantation commodities that contribute significantly to the national economy (Suroso, 2008; Pahan, 2017). Palm oil has the highest production efficiency compared to other types of vegetable oil (Susila, 2004, Pahan, 2017). Despite having the highest yield of productivity compared to other types of vegetable oil, the productivity of oil palm products varies between production sub-systems. The production sub-system which has the lowest productivity is smallholder plantation (World Growth, 2011; Pahan, 2017). The low productivity and

quality of smallholder plantations pose challenges in the development of palm oil industry in Indonesia (Suroso, 2008; Murdiyarso, et al., 2011).

The area of smallholder plantation is more than 40% of the oil palm plantation area in Indonesia. The production of smallholder plantation has a significant effect on the national production. Extensification and intensification are feasible ways of increasing palm oil production (Murdiyarso, et al., 2011).

Extensification can be done through plantation area expansion, while intensification can be done by optimizing production in the area which has had oil palm plantation. Area expansion becomes the main booster in increasing production at Smallholder Plantation (Kariyasa, 2015). Rapid industrial growth leads to new problems as an excess of the growth. Expansion of oil palm plantations faces constraints from the environmental perspective. The palm oil industry is considered to have a negative impact on the environment (Pahan, 2017).

Expansion of oil palm plantation areas is constrained through Presidential Instruction (*Inpres*) No. 10 of 2011. This policy is a derivative product of the agreement between the government of Indonesia and the government of Norway to reduce greenhouse gas emissions. This policy contains delays in the granting of new licenses for the conversion of primary natural forests and peatlands. The policy is valid for two years and extended for three (2013-2017) periods of six years. The implementation of the policy for six years (2013-2017) is considered not able to fully address the issues of forest governance in Indonesia (Forest Watch Indonesia, 2017). This policy inhibits economic growth because it threatens the sustainability of Indonesia’s palm oil production (Joyosemito, et al., 2014)

This study aims to analyze the factors that influence the implementation of oil palm moratorium policy and its effect on the production of palm oil in Indonesia. The policy analysis is seen from all stakeholders who are involved in the palm oil industry.

METHOD

This research began with the identification of factors that affect the moratorium policy. Data analysis in research was done both qualitatively and quantitatively. Quantitative data were obtained from the in-depth interview with the expert. Interview method used paired questionnaire with scale Saaty 1-9. Priority setting used ANP method with Super Decision Software 2.2.8.

Interviews were conducted with 14 experts who are deliberately determined (purposive sampling). Experts are grouped into four groups consisting of

academicians/ researchers, business people, government, and communities/ associations in accordance with the concept of *Quadruple Helix*. This concept includes elements of society as an active element (Afonso, et al., 2012).

The group of experts representing academics/ researchers came from Bogor Agricultural University (IPB), Medan Oil Palm Research Center (PPKS), PT. Smart Tbk, PT. Sampoerna Agro Tbk, and PT. First Resources Group. The group of experts representing businessmen is from PT. Perkebunan Nusantara III (PTPN III Holding), PT. Kharisma Marketing Bersama Nusantara (KPBN), and PT. First Resources Group. The group of experts representing the government comes from Oil Pal, Estate Fund Agency (BPP-KS) and the Coordinating Ministry for Economic Affairs (KKBP). Group of experts representing communities or associations come from the Indonesian Oil Palm Society (MAKSI), Indonesian Oil Palm Farmers Association and World Resources Institute (WRI).

RESULTS

The result of the consensus about the factors influencing experts on the implementation of the moratorium policy is shown in Table 1. Law enforcement is the highest priority in this study, with the weight of 34.62%. The second priority is the principle of sustainability with the weight of 34.39%, the third priority is shown by conflict resolution with the weight of 17.96%, and the last priority is deforestation and land conversion with the weight of 13.03%.

Table 1 Priority of Determinant of the Success of Moratorium Policy

Factor	Expert Group				Average	Rank
	Academician & Researchers	Businessmen	Government	Community		
Deforestation&Land Conversion	0.1242	0.1291	0.1992	0.1040	0.1303	4
Law Enforcement	0.3164	0.4564	0.3320	0.2968	0.3462	1
Resolution Conflict	0.1467	0.1323	0.2594	0.2233	0.1796	3
Principalsustainability	0.4126	0.2822	0.2095	0.3758	0.3439	2
Sub-total	1.0000	1.0000	1.0000	1.0000	1.0000	

The priority generated by the four expert groups shows the different level of understanding. The approval of the respondents in this study is expressed in Kendall's Coefficient of Concordance ($W: 0 < W \leq 1$). Kendall's coefficient value of those four groups is indicated by the understanding of opinion of 44.49% (Table 2).

Table 2 Understanding based on expert group

No	Expert Group	N	Kendall's Coefficient
1	Academician & Researcher	5	0.5520
2	Businessman	3	0.7778
3	Government	2	0.7000
4	Association	4	0.6750
Total		14	0.4449

DISCUSSIONS

The results of discussion and in-depth interview with experts and the output of software show that law enforcement shows the highest priority in influencing the success of the moratorium policy (34.62%). Law enforcement has a very important role in the success of moratorium policy implementation because legal compliance is the foundation for the sustainability of production generated. The principle and sustainability of palm oil production in terms of economic, social, and the environment is based on the legal compliance. If the law is upheld, then sustainability and conflict resolution can be achieved. Besides, law enforcement also plays a role to reduce deforestation and land conversion claimed as the main factor of greenhouse gas emissions in Indonesia. Sequences of the success of oil palm moratorium policy based on the priority of experts are:

Law enforcement → the principle of sustainability → conflict resolution → deforestation and land conversion.

Law Enforcement

Oil palm plantation is one of the forms of the use of forest, which play a role in the economic

growth. The industrial development raises contradiction when the construction process pays less attention to environmental aspects. Oil palm plantation is claimed to be the motivating factor increasing greenhouse gas emissions in Indonesia (GAPKI, 2013). Greenhouse gas emissions can be reduced by conducting practices under the applicable law. Law enforcement is required to provide a positive outlook on oil palm industry.

In Indonesia, environment law enforcement, especially forestry, is still very weak (Handayani, 2009). The violation of environment law which is commonly found include the lack of license for the release of forest or license to utilize woods before opening land, opening land in the area that is not defined as agricultural area, lack of Environmental Impact Assessment (EIA), using peatland, and opening land by burning the forest (Daemeter Consulting, 2015).

Government policy plays an important role in forestry law enforcement. Various policies issued by the government in forestry management are considered inadequate (Handayani, 2009).

One of the policies issued to reduce forest degradation namely Presidential Instruction No. 10 of 2011 about the delay in the issuance of the new license of primary natural forest and peatland conversion. Although it has been extended for three periods (2011- 2017), the application of policy moratorium of delay in the issuance of permit for forest conversion is considered not successful.

The determinants of the success of policy implementation include quantity and quality of law enforcement officers, the policy itself, and the culture of community law. Adequate human resources, means, and facilities of law enforcement are required, both the quality and quantity. Low quantity and quality of human resources and the limited means or facilities inhibit the forestry law enforcement in Indonesia (Runtutahu, 2014).

Smallholder oil palm plantation is spread in different areas in Indonesia and involves 2.2 million farmers (Ditjendbun, 2016). This makes the activities conducted difficult to be supervised. Law enforcement has not been able to keep an eye on the violation that occurs due to lack of capacity, facility, and infrastructure (Runtutahu, 2014).

The second factor affecting the success of the implementation of a policy is the policy itself. Presidential Instruction (*Inpres*), including presidential decree No. 10 of 2011, is a set of instructions delivered by President to the relevant agencies. This instruction is one of the regulatory policies that do not have legal consequences if it is not run by the agencies which receive the instruction.

Various weaknesses are found in the Presidential Instruction No. 10 of 2011. The first weakness is that the moratorium policy does not include the extension of the length of the license of Forest Concession Rights (HPH) as long as the permission owned by the company is valid. Assessment of the license holders' performance is not used as a reference in extending Forest Concession Rights. The social and environmental responsibility of the license holders has not become a concern in the implementation of moratorium policy.

Second, this policy provides an exception in some licenses, namely in the principal license and vital project. The effort to improve forest governance is not in line with the enactment of those exceptions. Forest which has obtained principle license is not included in the area under the moratorium; in fact, the status of principle license is not forest management license.

Third, a factor that affects the success of the implementation of Presidential Instruction No. 10 of 2011 is legal culture. Legal culture can be interpreted as attitude shown by a human to law, the legal system, belief, assessment, and expectation to the law (Handayani, 2012). The lack of public trust to the applicable law affects the implementation of the policy.

Good law enforcement affects the production of palm oil. Fulfilling the criteria and the principle of sustainability based on legal compliance has a positive effect on the production of palm oil (Pahan, 2017). Legal compliance, which is reflected by the fulfillment of the principle and criteria for sustainability, supports the increase in the production of palm oil. Various constraints in law enforcement in Indonesia like law enforcement officers, the policy itself, and legal culture of the society shows that the Presidential Instruction No. 10 of 2011 has not been run optimally.

Forest damage can be prevented by functioning law enforcement officers, supportive policy, and culture of the society that is good for forest management. Performance of law enforcement officers can be improved by making improvements so that the law enforcement officers have adequate capacity in enforcing forestry law. The weak legal substance can be overcome by renewing and reorganizing the applicable law like reevaluation of the moratorium on oil palm in order to improve Indonesian forestry.

Principle of Sustainability

One of the challenges faced by palm oil industry at this time is the need to increase the commitment of the parties involved in the development of sustainable palm oil industry. Palm oil sector in Indonesia is being criticized by international stakeholders related to practices which are considered less sustainable.

The negative effects due to the construction of oil palm plantation encourage international institutions, market, and the wider community to demand oil palm plantation industry to run its industry in a sustainable manner, in accordance with the concept of three main lines - profit, people, and the planet (Elkington and Zeitz, 2014). A number of programs and initiatives to support sustainable plantation has been conducted by the government and other stakeholders, such as certification of ISPO and RSPO.

Government's effort in creating sustainable palm oil production is shown through the enactment of certification system of sustainable oil palm plantation in Indonesia, which is also known as Indonesian Sustainable Palm Oil (ISPO). Oil palm plantation business is expected to meet the obligations in accordance with the rules, and to protect and promote sustainable oil palm plantation business according to the needs of the market.

The implementation of ISPO has not been able to eliminate the negative effects due to the construction of oil palm plantation, especially on social and environmental aspect. Certification system which is expected to improve plantation and land governance has not been able to run optimally. It is shown by a total area of oil palm plantation that has

implemented system ISPO around 13% or just about 1.5 million hectares (Forest Watch Indonesia, 2017).

Productivity improvement as a result of the implementation of sustainability principle in oil palm industry becomes a success indicator of moratorium policy in accordance with the Presidential Instruction No. 10 of 2011. Productivity improvement is expected to fulfill the need for wide plantation area. The fact in the field indicates that sustainability principle is difficult to run, especially on smallholder plantation.

The problems on the implementation of ISPO on a smallholder plantation include some aspects, namely technical aspect, economic and social aspect, institutional aspect, and environmental aspect. The technical aspect includes the use of seeds which are not certified and maintaining plants non-optimally. The use of fake seed leads to loss because the productivity is less than 50% of production generated by certified seed (Plantation Research Institute 2015). Both can result in low productivity of farmers; therefore, the sustainability of production is threatened (Ditjenbun, 2017).

Social aspect highlights land governance, working capital, education, conflict, credit facility, as well as weak bargaining position of farmers. The legality of land related to Right to Cultivate (HGU) or Plantation Business License (IUP) becomes a problem in the development of smallholder plantation. Land governed by farmers generally has no formal legality power; therefore, it affects their ability to file a financing credit, which plays a role in guaranteeing the sustainability of the business.

The institutional aspect includes the cooperation between the relevant institution and the role of farmer group or cooperative, which is still considered weak. Management skill of farmer group or cooperative is a very important factor for the society. The environmental aspect includes agronomic practices, such as low-efficiency fertilization, land degradation, and environmental pollution. Land degradation is a result of planting in the riparian zone, peatland, high conservation value area, and high carbon stock. Pollution of Hazardous and Toxic Waste (B3) comes from the materials used to control Plant-Disturbing Organism (OPT) chemically.

The sustainability of smallholder plantation can be maintained by increasing the capacity of farmers. The capacity of farmers can be improved through the use of certified seed, improving the training of good technical culture, improving access for rejuvenation, and institutional strengthening.

Seed provision can be done by increasing the knowledge and skill of farmers in using certified seed. In addition, seed can be provided at an affordable price and in the strategic location. Technical culture knowledge can be increased by increasing the participation of private companies and agricultural extension worker about good and appropriate cultivation principle.

Conflict Resolution

Conflict resolution is an effort which is made to give land tenurial security, natural resources, or area managed by the society (Forest Watch Indonesia, 2017). The presence of Presidential Instruction No. 10 of 2011 that limits the expansion of forest conversion area is expected to reduce the conflicts occurred within the community.

Tenurial conflict in oil palm plantation involves three main stakeholders, namely local community, farmers, and the government. Tenurial problems lead to the structure and the relationship of agrarian caused by the plantation business to be complex.

Local community recognizes the land they master historically as land which is physically inherited to their descendants in the future, although it is not supported by adequate formal documentation. The difference of understanding from the perspective of state administration and from the perspective of the history of indigenous peoples and/ or local communities becomes the main cause of conflict in oil palm plantation.

Land title is the evidence of farmers' land ownership. The evidence of land ownership provides protection, anticipates conflict, and provides the warranty of legal certainty. Inequality in ownership, control, and land use between the farmers with the local community becomes the dominant issue in tenurial conflict.

The moratorium policy of primary natural forest and peatland conversion is expected to reduce

the conflict; in fact, it is not run optimally. Moratorium policy does not regulate the principle license that has been removed. In addition, moratorium policy does not prohibit the extension of Forest Concession Rights license for companies. Extension of Forest Concession Rights (HPH) license remains conducted without performance evaluation, especially in terms of social and ecology. Boundary improvement is expected to be done although policy moratorium has not been implemented yet. The issuance of Indicative Map of New License Delay (PPIB) is considered not to be able to be used as a basis for the improvement of forestry boundary administration.

The effort for conflict resolution is required to complete the conflict and minimize the conflict in the future. Conflicts can inhibit the production activities, which can affect the sustainability of palm oil production. Government plays a role in the implementation of one-map policy nationally. The realization of one-map policy which can be a reference for all stakeholders can provide legal certainty for sustainable oil palm plantation management. In addition, improving the understanding of the importance of land legality of the society can be done through counseling and improving the institutional role of farmers.

Deforestation and Land Conversion

Deforestation is an activity of logging forest cover excessively, which can damage the forest. Land conversion can be interpreted as a change of land cover, which can be seen from the change of the use of the area. Land conversion is also shown by the change of the legality status of a land (Gingold, et al., 2011).

An effort to control deforestation in Indonesia in reducing greenhouse gas emissions is shown through the enactment of Presidential Instruction No. 10 of 2011 about the delay of new license and primary natural forest and peatland conversion. The fact in the field indicates that the implementation of Presidential Instruction No. 10 of 2011 cannot reduce deforestation. Logging and forest opening still occurs, and a new license is still provided by officials in the area of the moratorium (Murdiyarso, et al., 2011).

Farmers generally open land directly without having been through licensing procedure in the local government. Land acquisition through SKT mechanism (Land Certificate) signed by Head of Sub-district and Head of Village as PPAT (Land Deed Official) considered adequate to process land opening and new planting. The lack of farmers' understanding about ecological issues and access to heavy equipment leads small-scale land opening to be usually done with the lowest cost of the land opening (Pahan, 2017).

The role of government in law enforcement, supervision, and providing information about forest cover becomes important. Information of land cover is supposed to be used to know the concession of forest intended for oil palm plantation. Complete and accurate information such as spatial data, maps, land status, license, and any other use should be easily accessed by the community. Information of degraded lands can also be used for the plantation activities; therefore, deforestation practices can be minimized.

Level of Understanding

The results of this research show Kendall's coefficient of 0.4449, which means that the similarity of opinion between experts only 44.49%. Disagreement is caused by the difference in the point of view in accordance with the background of each expert rather than the difference of experts' opinions in each group.

CONCLUSION AND SUGGESTION

Conclusion

The success of moratorium on oil palm plantation is determined by the sequence of the success of law enforcement to the sustainability principle that will be the conflict resolution with the society, which reduces deforestation and land conversion. Issues in law enforcement (weight of 34.62%) lead the practice of sustainable smallholder oil palm plantation to not running well (weight of 34.39%); therefore, moratorium policy used to improve the forest governance in Indonesia has not been run optimally. Various problems in those four factors cause moratorium policy unable to run optimally. Moratorium

policy cannot address forest governance problems in Indonesia.

Instead, this policy affects the production of palm oil Indonesia. The presence of moratorium policy without law enforcement and application of sustainability principle threatens the sustainability of national palm oil production.

Suggestion

Further study can be done by using quantitative data. Data of the area of deforestation due to oil palm plantation is required to clarify the evaluation of moratorium policy. Delay in new license requires in-depth evaluation quantitatively, either before or after the enactment of Presidential Instruction No. 10 of 2011, by paying attention to the principles of three main lines (economy, social, and ecology).

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