The Role of Farmers Readiness in the Sustainable Palm Oil Industry

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Abstract: One effort currently made by the Indonesian government to ensure the sustainability of the development of the palm oil industry is to create a sustainability standard called Indonesian Sustainable Palm Oil (ISPO) in presidential regulation no 44 in 2020. The purpose of this study is to determine the value of the ability of independent coconut farmers palm oil in Indragiri Hilir to meet the Indonesian Sustainable Palm Oil (ISPO) standards and identify the problems faced in achieving these standards. Evaluation of the ability of independent smallholders to achieve ISPO standards is carried out by an audit method, the results of the assessment of all parameters set in accordance with the Principles, Criteria and Inductors. The Criteria and Indicators contained in the ISPO provisions are then assessed in percent. The audit method is carried out in a quantitative descriptive analysis of the appropriateness of ISPO principles, criteria and indicators by comparing the implementation of legality, organization and management, management and environmental monitoring implemented by independent smallholders. Readiness of ISPO application for smallholder farmers by evaluating four principles, 20 criteria and 47 indicators. Of the 47 indicators determined in the ISPO requirement for self-help patterns, as many as 58.94% of the ISPO indicators have never been implemented by independent smallholders and 42.06% of the ISPO indicators have farmers running them. From ISPO indicators that have been carried out by independent smallholders, only a small portion of independent smallholders are run.

1. Introduction

The plantation subsector in Indonesia has become one of the sources of non-oil and gas foreign exchange and is able to provide employment for more than 6 million people [1]. Palm oil is the commodity of choice in the plantation revitalization program based on several considerations, including: (1) the developed commodity has a very strategic role as a source of community income, (2) the commodity developed has market prospects, both in the domestic and export markets [2]. is that students can produce writing language products effectively and efficiently in a variety of contexts.

Oil palm plantations in Indonesia in 2012 reached 9.5 million hectares, In 2017 Indonesia's CPO production rose from 23.5 million tons to 26 million tons or grew 11.01%, with the amount of Indonesian production still the largest palm oil producer and controlled 48 % of total world market share [3], [4], [5], [6].. The total production of oil palm plantations in Indonesia in 2016 was 33.23 million tons, produced from 11.91 million hectares of the total area of oil palm plantations nationally. Proportionally, 54.64 percent of national oil palm plantations are managed by large private companies (PBS). The rest, around 39.08 percent is cultivated by the people (including plasma) and a small portion is managed by large state-owned plantations (PBN). In Indonesia there are three patterns of oil palm plantation management, namely companies, plasma and self-help. Self-help is a pattern of oil palm plantation development carried out by the farmers themselves, ranging from land clearing, planting, maintenance, harvesting of

marketing products without going through business partnerships. The self-help management pattern is the most extensive land area of the three oil palm plantation management in Indonesia, and the self-help pattern continues to increase.

The increase in the size of the area of self-help is not balanced with the increase in productivity, while the pattern of self-help productivity is lower than that of large companies, the pattern of self-help productivity is only around 2.5 to 3 tons per hectare, while large factories are only around 3.5 to 4 tons per hectare. The provinces of Riau and North Sumatra are the largest CPO production centers in Indonesia with contributions of 23.75 percent and 16.24 percent, respectively. The expansion of oil palm plantations is an important key word to begin to understand the universe of the oil palm problem in Indonesia.

This expansion has been deemed responsible for deforestation (deforestation), carbon emissions, and loss of biodiversity [2], [7], [8]. In line with this, there is widespread accusation that the palm oil industry is unsustainable. Behind the achievement of existing success, the Indonesian oil palm plantation industry is also faced with challenges that must be overcome wisely, namely a strong view that illustrates that the development of Indonesia's oil palm plantations has an impact on the destruction of natural resources and environmental sustainability. The Government of Indonesia through the Ministry of Agriculture, alleviates the negative accusation by providing a certificate of Indonesia Sustainable Palm Oil (ISPO) to palm oil businesses / actors in Indonesia. on the laws and regulations of the Indonesian government. ISPO is a guideline and commitment based on the laws and regulations that apply in Indonesia..

This provision is mandatory or must be applied to plantation businesses in Indonesia and the target of its application after the issuance of a presidential regulation (Perpres) [9] are mandatory and there will be sanctions for companies and independent smallholders who do not have ISPO certification. Indragiri Hilir Regency is the same as the condition in Indonesia in general, where there are also 3 patterns of oil palm plantation management. The area of self-management pattern land management is also the widest of the two other patterns. Indragiri's downstream geographical conditions consist of regions with land typology, tides and coastal areas, where large areas of land are swampy (tidal) and coastal typologies. The typology of the Inhil region causes low productivity, low fruit quality, scattered plantations with damaged roads and high transport costs and a long marketing chain that makes the selling price of FFB received by independent smallholders much lower compared to PIR pattern farmers (people's core company). Noting this problem, research is needed to determine the value of oil palm independent smallholders in Indragiri Hilir Regency to meet the Indonesian Sustainable Palm Oil (ISPO) standards and what problems are faced by independent smallholders in meeting these standards [10], [11].

2. Research Methods

2.1 Research Sites

The study was conducted at smallholder oil palm plantations (smallholders) in three villages in the Indragiri Hilir Regency, namely Kempas Jaya village, Teluk advanced village and pelangiran village. The location of the study was intentionally determined, with the consideration that the three locations were included in the cluster (cluster) of the five major centers of oil palm plantations in the Regency of Indragiri Hilir. The area of independent oil palm plantations is important to consider as a study parameter because this study aims to measure how much preparedness of independent oil palm farmers to face the Indonesian Sustainable Palm Oil (ISPO) policy [12].

The three villages chosen as cases in this study are expected to represent villages with independent palm oil farmers' households that have complexity in the aspects of land legality, seedlings and environmental management as well as the typical livelihood structure. These three villages are factually located on peatlands and are bordered by large private plantation companies in the Indrgiri Hilir Regency. Penetration of oil palm plantations into forest areas poses a major challenge to the sustainability of palm oil production, mainly related to deforestation activities [13], [14].

2.2 Data Analysis

The data collected includes primary data and secondary data. Primary data was collected through a survey method using a questionnaire and indepth interview using interview guidelines. Sampling for the survey method was carried out on oil palm farmer households that have been cultivating oil palm for at least five years (have produced) and have harvested at least one harvest. The selection of respondents was chosen randomly, that is, as many as 30 respondents for each village assuming this number had fulfilled the minimum number of respondents that had to be surveyed produced by calculations with the Slovin formula, with a margin of error of 20%. The sampling frame of this study is the farm households whose

gardens are located and live in the village. Farmer household samples are taken by simple random sampling, where each household has the same opportunity to be selected as a sample [15], [16].
Analysis of the research data includes: 1) livelihood structures in three villages to see whether income from oil palm plantations is sufficient to support the ISPO certification program; 2) analysis of legality includes three aspects of legality that are required, namely the legality of land, seeds, and the environment; and 3) see how (possibly) the implementability and operationalization of ISPO certification in independent smallholders or smallholders in the three research villages. Basically there are seven principles of ISPO assessment, but in this study it is only limited to the scope of the implementation of the ISPO principles that apply to smallholders only, namely the livelihood aspects of the legality of land, seeds, and the environment. The research was carried out from November 2019 to March 2020..

3. Result and Discussion

3.1 Livelihoods of Palm Oil Independent Farmers

The facts in the field show that there are rarely independent household farmers whose livelihoods rely solely on the sole support of a single source of oil palm plantations. The initial suspicion of this research is that the more dominant the source of livelihood from the oil palm plantation sector within the structure of the livelihood of the farmer household, the readiness of the oil palm farmer household to implement ISPO certification will be better.
[17] and [18] explained that in an effort to maintain life, suppress the crisis and while maintaining the welfare of the household of independent farmers to make a living diversification. This diversification shows the dominance of oil palm products which encourages independent smallholders to carry out certification. In developing countries the source of income for farmers in rural areas consists of 3 sources of income, namely: farm income, off farm income, and non farm income that is utilized in such a way as to maintain the existence of their lives and respond to pressure or changes from surrounding conditions [16], [19], [20], [21]. In order to facilitate the classification in this study, it will be simplified into three sources, namely oil palm plantations, agriculture in general, and non-farm activities (all livelihood activities outside the agricultural sector).

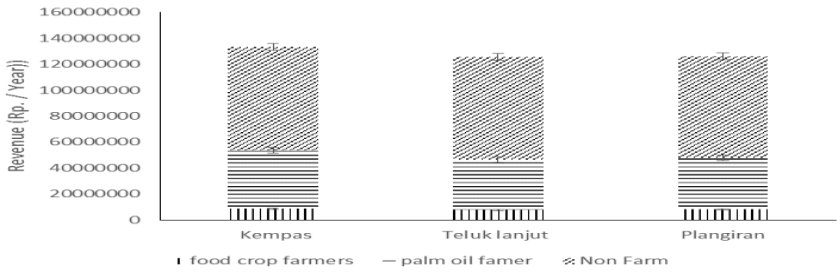

Figure 1. Self-Supporting Household Infrastructure in Kempas Jaya Village, Teluk Continue Village and Plangiran Village.

From Figure 1 it can be seen that the livelihood structure of independent smallholders in three non-oil palm villages is not the dominant income. Figure 1 shows that the real source of income from oil palm plantations is not significant enough to say that the three villages are the centers of community oil palm plantations, where ISPO certification can be easily implemented. If the independent oil palm farmer household wants to increase the economic contribution of the oil palm, the only way that the independent oil palm farmer household can take is to expand the land (something that will produce very serious environmental risks) [22].
Two of these conditions will be seen two things: (1) the possibility that smallholders are not eager to implement ISPO because of the low proportion of income from oil palm; (2) A lot of land will be excluded from ISPO certification because it is considered illegal. ISPO's real goal is to remove illegal land from the legal and sustainable production system, so that the credibility of the CPO market in the international eye can eventually increase. This risk is certainly hard for farmers, so there must be an optional step for improving welfare [22]. [12].

Based on the livelihood structure of independent palm oil farmer households in the three research location villages, it can be concluded that the current livelihood condition of the independent oil palm farmer households is currently not ready for the ISPO certification process, unless fundamental improvements are made to the productivity aspect first, Indonesia's CPO credibility in international markets, remain low or gloomy as long as the livelihood structure described above, continues.

3.2. Legality of agricultural land

One of the principles that must be fulfilled towards ISPO is land legality as evidenced by ownership of land certificates, land sale and purchase certificates, and other legal proof of land ownership. As stated in the Decree of the Minister of Agriculture of Indonesia No. 19 / Permentan / OT.140 / 3/2011. Ideally, the ISPO certification scheme plans that all independent palm oil farmers in Indonesia can be certified [22], [23]. The results showed that independent oil palm plantations were developed in two types of legal status of land in rural areas. The first status is oil palm plantations developed in Non-Forestry Cultivation Areas (KBNK) or Other Use Areas (APL). In this first status, oil palm cultivation is declared legally forestry and is therefore in accordance with the principles of sustainability in plantation practices.

The second status is oil palm plantations developed in the Forestry Cultivation Zone (KBK). Oil palm planted on land with this status is declared illegal by forestry law and does not meet the principles of sustainability in plantation cultivation. It is on this KBK land that is the subject of the rejection of Indonesian palm oil products to European Union countries. Figure 2 shows that the agrarian structure of illegal oil palm plantations (oil palm in the Forestry Cultivation Area / KBK) in three villages is very low compared to oil palm plantations on legal land (oil palm in the Non-Forestry Cultivation Area / KBNK). This shows that independent farmers in the three villages have no problems in the legality and status of cultivated land. This fact also shows the consequence that all oil palm production originating from the three villages is not at risk from agrarian conflicts, deteriorating environmental quality and unsustainability so that it can be certified by ISPO. The status of illegal land is usually caused by oil palm plantations that are cultivated in conservation areas (forest conservation land) or production forest areas. The status of illegal land is usually related to the pattern of oil palm expansion carried out by independent oil palm farmers due to the unavailability of land in the area. Land legality is also demonstrated through ownership of land certificates.

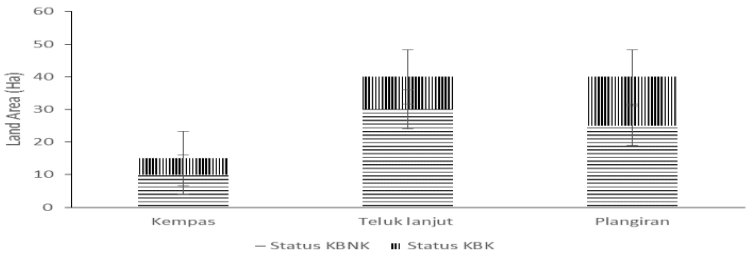

Figure 2. Average Area of Mastery of Independent Palm Oil Farmer Households in Three Research Villages, based on Location / Legal Status, in Hectares (Ha).

Study of [22] shows that there are identified gaps between the RSPO certification standard requirements and practice in the field, one of which is the existence of land certificates that are difficult for farmers to hold. Field facts in this study also show that land certificates as one of the requirements in ISPO certification have not yet been fulfilled. Most independent coconut farmers in the three study locations did not have land certificates but were limited to Land Certificate (SKT) or Compensation Certificate (SKGR) issued by the competent authority at the sub-district and village level. Neither SKT nor SKGR were the basis for the mastery rights. land that is strong and legitimate in the eyes of formal law.

3.3. Clarity of Palm Oil Seed Sources

The origin or source of oil palm is a difficult thing to do even with high concentrations in world palm production in Indonesia and Malaysia [24]. The three study locations studied have represented the characteristics of independent smallholders in Indonesia in utilizing seedlings in their gardens. In addition to land legality, one of the other ISPO principles or criteria is the legality of seedlings marked with certified oil palm seedlings. The facts on the ground indicate that independent palm oil farmers'

households buy uncertified oil palm seeds. The origin of oil palm seedlings planted is from other oil palm farmers whose legality is unclear, or the oil palm seedlings they use are the result of independent nurseries by the farmers themselves. This characteristic is that the percentage of use of certified oil palm seedlings is usually not more than 35% of the total area of the existing oil palm plantations. This means that most of the existing oil palm plantations do not use certified seedlings, although in some cases in one oil palm plot there are partially certified palm trees and some are uncertified. From the perspective of using seedlings, it can be said that most of the land of coconut farmers' plantations independent palm oil or smallholders do not meet ISPO requirements.

One of the important things in ISPO certification is the principle of legality of seeds or certified palm oil seedlings to meet the standards of sustainable management of life and natural resources [13]. If the principle of legality of these seeds is not fulfilled, then the whole principle does not apply to the farmer concerned. This means that every plot of land in which a palm tree with uncertified seedlings is grown, the garden is considered illegal from the perspective of sustainable plantation cultivation (ISPO).

Figure 3. Status of Oil Palm Seed Legality in Three Villages

Looking at the fact that in the three study locations displaying oil palm seedlings without a dominant certificate, it can be concluded that: a) the majority of independent oil palm growers can be said to be disobedient to the principles of sustainable palm oil governance; b) therefore, the independent oil palm farmers will not be able to implement ISPO certification. The end of this problem is the same, that is, every product produced by oil palm plantations from plants whose seeds are considered illegal, will be rejected by the international market..

4. Conclusion

The readiness of independent oil palm farmers in the three research locations in facing ISPO implementation, is structurally stated to be not ready because the income from palm oil is not the main or dominant source of income. The legality side of independent smallholders is ready because most of the oil palm cultivation plantations, even though most of the land does not yet have a certificate, but has received compensation letter from the camat. The legality side of the seedlings was also stated to be not ready to implement ISPO because most independent oil palm farmers use seeds with unclear origins.

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