

Impact of oil palm plantation replanting program on community welfare Koto Gasib District, Siak Regency

Deak Triastutik*, Seri Hartati, Zamhasari

Government Studies Program, Faculty of Social and Political Sciences, Abdurrahman University, Pekanbaru, Riau

*Email: deak.triastutik@student.univrab.ac.id

Abstract. This study aims to determine how the impact of the replanting program for oil palm plantation on the welfare of the community and to find out how the attitudes or behavior of oil palm farmers in Keranji Guguh. Based on the regulation of the Minister of Agriculture in Indonesian number : 18/permentan/KB. 330/5/2016 concerning guidelines for rejuvenation of oil palm plantations in 2016. This research is descriptive by using qualitative method. Data collection is done by holding observations, interviews and documentation. While the data sources used are primary and secondary data sources. Based on the results of this study, the impact of the oil palm plantation replanting program on the welfare of the Keranji Guguh community in the Koto Gasib sub-district of Siak Regency, the farmers' income is no longer available and the non-productive period of oil palm. It is one of the reasons for the replanting program. As for the replanting program carried out in Keranji Guguh village, they were using the system uprooted in unison. While the efforts made by oil palm farmers in the Keranji Guguh village were to face the replanting period in the form of external and internal efforts. External efforts from Siak district government such as ducks, chickens and catfish. While internal efforts are farmers working as their daily needs.

Keyword: Replanting Program, Community Welfare, Keranji Guguh

1. Preliminary

Traditionally, the role of agriculture in economic development has been seen only as a passive and supporting element. Based on the historical experience of Western countries called economic development, it is synonymous with rapid structural transformation of the economy, namely from an economy that relies on agricultural activities to a modern, more complex, community service industry. Thus, the main role of agriculture is only considered as a source of labor and cheap foodstuffs for the development of industrial sectors which have been named as dynamic "leading sectors" in the overall economic development strategy.

Several national issues such as the high unemployment rate, increasing poverty, energy scarcity, environmental damage and the weakening of the real sector in Indonesia have made agricultural development focused on plantation commodities expected to play a major role in the economic, social and environmental fields. Oil palm (*Elaeis guineensis* Jacq) is one of the top priority commodities for seeding.

Oil palm was introduced to Indonesia in 1848 by the Dutch government. At that time, oil palm was considered an ornamental plant. The Bogor Botanical Garden, formerly known as Buitenzorg, planted four oil palm plants, two from Bourbon (Mauritius) and two from the Hortus Botanicus, Netherlands. In

1853 the plant bore fruit and the seeds were distributed free of charge. The four plants thrive and bear fruit. Although the planting time differs (planting the plants from Bourbon first two months), the fruiting time is almost the same. Most likely the genetic source is obtained from the same source [1].

The productivity of oil palm plants depends on the age of the oil palm plantations. In the 0 to 10 years the oil palm plantations began to produce and continued to increase until they reached the peak and after that it tended to decline in the 25 to 30 years, oil palm production was not sufficient to meet the daily needs of farmers households.

The total area of oil palm plantations in Keranji Guguh Village reaches 805.42 hectares and those that follow replanting are 620.97 hectares. The residents of Keranji Guguh Village have the most dominant livelihood, namely as oil palm farmers. Because the economic condition of Keranji Guguh Village is very dependent on the productivity of oil palm plantations, because it is still in the stage of rejuvenation or replanting, the conditions at that time are very influential for the economic life of the people of Keranji Guguh Village which as a result the economic increase during this replanting period has decreased.

This is what is happening in Siak district, as it is known that oil palm is one of the leading commodities in Siak district. On October 25, 2014, the Regent of Siak Drs H. Syamsuar, M.Si planted the first rejuvenation of PTPN V Sei Artificial Plasma Plantation in the plantation area of the people of Keranji Guguh Village, Koto Gasib District, which was the first rejuvenation carried out in Siak district [2]. So the economic situation of the people of Keranji Guguh Village, who generally work as oil palm farmers, during the replanting period, which is about the next 5 years will lose their income.

In this case the Regional Government of Siak Regency also helps farmers in dealing with replanting. The first rejuvenation of smallholder-owned plantations in Siak District, the local government is very enthusiastic by helping farmers overcome the replanting period. The replanting carried out in Keranji Guguh Village, Koto Gasib District, Siak Regency is the first rejuvenation and will be used as an example and benchmark for other areas that will do replanting in the future. P. Siallagan, secretary of KUD Karya Dharma III, (Interview on 16 December 2019). To deal with this problem, the community received some assistance as an effort to overcome it. However, this assistance did not really contribute to the community's economy. This is what needs special attention, because it has a negative impact on the economy and the welfare of the community.

2. Method

This research is a field research. The study use qualitative descriptive analysis. By this approach explained the impact of the oil palm plantation replanting program on the welfare of the people of Keranji Guguh Village, Koto Gasib Sub-district, Siak Regency in 2014-2019. Qualitative research will get into the object and explore with big questions so the problems will be clearly identified. A researcher starts thinking inductively, capturing various facts or social phenomena through field observations.

This type of research is descriptive provides a comprehensive and clear specific picture of the object in accordance with the phenomena that occurred. Meanwhile, the form of this research is field research by collecting data from related agencies related to this research in order to complete the required data. Subjects in this study, the community of Keranji Guguh village, Koto gasib district, Siak Sri Inderapura district, who have oil palm plantations and participate in replanting. For more details, a list of research informants can be seen in the table 1.

Table 1. Research Informants

NUMBER	NAME	POSITION	AMOUNT
1	Nurihwan Andi N	Village Penghulu	1
2	Ahmad S. Sormin	PTPN Assistant Plant V	1
3	Gloria Ginting	Foreman I Kebun	1
4	M. Hatta ST	Chairman of KUD Karya Dharma III	1
5	P. Siallagan	Secretary of KUD Karya Dharma III	1
6	Rianto	Treasurer of KUD Karya Dharma III	1
7	Eko Purwanto	Oil Palm Farmers	1
8	Munawir Sapsali	Oil Palm Farmers	1
9	Adnan	Oil Palm Farmers	1
10	M. Noor	Oil Palm Farmers	1
11	Jamad	Oil Palm Farmers	1
12	Haklis Romadhon	Oil Palm Farmers	1
AMOUNT			12

All qualitative data techniques are closely related to data collection methods using observation and interviews or focus group discussions. In fact, sometimes a theory chosen is technically closely related to data collection methods and data analysis methods. Because a theory usually provides methodical procedures and data analysis procedures. Thus, data collection was carried out by interview and observation through traditional data analysis techniques [3]

In this study, the authors conducted a qualitative descriptive analysis, all the data had been collected, the authors explained in a detailed and systematic manner so that they could be fully described and can be clearly understood the final conclusion.

3. Results and Discussion

3.1. Impact of Replanting Program on Community Welfare

Impact is a change caused by an activity, an investment business in development activities has the potential to cause an impact (an impact is an effect that has either positive or negative consequences). In this connection Soemartono (2011) in [4] explains that basically the target of development is to increase the welfare of the community, but development activities cause side effects that are not planned beyond the target called impact. Impacts can be biophysical, social, economic and cultural which affect the goals to be achieved.

At the time of replanting the oil palm farmers were in very difficult times, they had to lose their main income because they had to do replanting. Farmers may not rejuvenate (Replanting) their gardens but old gardens are no longer productive, the results will decrease over time, if it is maintained it will give no more benefit to the community. The impacts of replanting oil palm plantations are below.

a) There is a non-productive period for oil palm trees

Based on the definition of the Ministry of Agriculture [5], rejuvenation is an effort to develop plantations by replacing old or unproductive plants with new plants, either in whole or in stages. In replanting, it takes a long time for the plants to produce. In general, there are four types of oil palm rejuvenation systems, namely the simultaneous falling system, the underplanting system, the gradual rejuvenation system and the intercropping system. The Replanting plantation rejuvenation system used by oil palm farmers in Keranji Guguh Village is a simultaneous downfall system where this process is carried out by uprooting all the oil palm trees together then replanting them with new seeds.

The advantage of using the simultaneous fallen system is preparation and tillage can be carried out more intensively, thereby reducing the level of attack by hornbill pests (*Oryctes rhinoceros*), *Ganoderma boninense* disease and providing ideal soil conditions for oil palm plant growth in the field.

b) Farmers' income no longer exists

It is common knowledge that replanting farmers' oil palm plantations will lose their main income for several years until the oil palm plantations bear fruit and produce again. The farmers during the replanting period are in a critical condition where they have to live frugally to still be able to make ends meet because their income is no longer there or something has decreased from before the oil palm plantation was replanting.

Soekartawi (2008) in [6] Farming income is the difference between revenue and all costs or in other words, xx income includes gross income or total revenue and net income. Gross income or total revenue is the total production value of agricultural commodities before deducting production costs. Oil palm farmers also lose their economic welfare. So that the family's needs can no longer be met. Farmers need to prepare themselves to meet the needs of farmers when replanting is done. Before replanting, farmers should have provided alternatives to meet their daily needs so that when replanting is done, farmers still have income and their welfare remains stable.

3.2. Readiness of Oil Palm Farmers in Facing Rejuvenation

The readiness that has been done by oil palm farmers to face replanting is different. Because this preparation is personal, everyone has their own readiness. Readiness means the readiness carried out by farmers if their oil palm plantations are rejuvenated and farmers still have to meet their daily needs that are not reduced. The reasons for oil palm farmers are ready to do replanting, namely :

- a) Already having another oil palm plantation, one of the preparations that have been made by oil palm farmers is by already having another oil palm plantation to replace the oil palm plantation which will be replanting. Owning an oil palm plantation of more than 2 (two) hectares is also the success of farmers in living their lives so far because everyone's success is different.
- b) Savings are a must for everyone because savings are indeed an asset that will be used in the future if needed. Likewise, at this time oil palm farmers who are replanting are having a difficult time to fulfill their daily needs. The success of life for each person is different if someone already has another oil palm plantation as a way to prepare for replanting there are also oil palm farmers who do not have other oil palm plantations, therefore they use savings to keep fulfilling daily necessities of life.
- c) Other jobs/income apart from having other oil palm plantations and savings, there is still the readiness of oil palm farmers to face replanting, namely other income. As someone who should be able to think creatively to be able to make ends meet, he should look for other ways to earn income even though his oil palm plantation has been replanting.

3.3. Elaboration of Cooperation with the Government

The Oil palm is one of the mainstay agricultural commodities in Indonesia that has been a strategic role in the national economy. the Indonesian government has created its own national regulation for sustainable palm oil development, the Minister of Agriculture Regulation Number : 19/Permentan/OT/140/3/2011 regarding the guidelines for Indonesian Sustainable Palm Oil (ISPO) by applying the principles of sustainable plantation development which are adjusted to various applicable laws and regulations. In 2015 this regulation was updated to [5].

The Management in this case is about monitoring the environment in independent smallholders. Management and monitoring of the garden's environment is strengthened by the principles of being environmentally sound and sustainable. If it is something wrong in management and monitoring of the garden's environment, then bad ecological problems will arise in the area. Therefore, the plantation

certainly has good legality requirements as well as good management and monitoring of the garden environment so that ecological sustainability is maintained.

Based on the regulation of the Minister of Agriculture of the Republic of Indonesia Number: 18 / Permentan /KB.330/5/2016, it is stated that the legality and management of oil palm plantations are the principles and criteria that must be applied by every owner of oil palm plantations throughout Indonesia as a basis for a coconut plantation. Sustainable palm oil, In addition, legality and management and environmental monitoring of the plantation are the right steps that aim to reduce the risk of environmental damage due to plantation practices because there are statements related to ecological issues with large-scale oil palm plantations that will trigger global climate change and ultimately result in environmental damage globally. This is claimed by several countries in Europe who argue that Indonesia's oil palm plantations had a negative impact on the environment, lost biodiversity and triggered vulnerability to natural conditions in the form of decreased land quality accompanied by erosion, pests and diseases [7].

Environmental management and monitoring affecting social benefits. However, the attributes measured through the indicators have environmental permits, implementation reports, report notes, the presence of animals, endangered plants, and animal documentation. In his research, it has proven that there is a significant positive relationship or influence between social benefits on environmental management and monitoring. However, social benefits do not have a significant effect on increasing sustainable business which has one indicator, the biggest effect value is the farmer groups that are followed, for that the government has an obligation to oversee the implementation of regulations on replanting or plantations. Thus, the Indonesian government created its own national regulation on sustainable palm oil development, namely the Minister of Agriculture Regulation Number:19/Permentan/OT/140/3/2011 concerning guidelines for Indonesian Sustainable Palm Oil (ISPO) by applying the principles sustainable plantation development in accordance with various applicable laws and regulations.

4. Conclusion

Based on the results of the research, the impact of the replanting program of oil palm plantations on the welfare in Koto Gasib District, Siak Regency, income of farmers is decreasing. This according to the oil palm plantations are as main income of oil palm farmers in Kampung Keranji Guguh from palm oil production. The existence of a non-productive period of oil palm plantations is the reason for the replanting program of oil palm in Keranji Guguh Village using the simultaneous falling system. The oil palm plantations in Keranji Guguh village are members of the PTPN V Sei Artificial Plantation PIR. Oil palm replanting in Keranji Guguh village is implemented with a partnership concept as stipulated in Law Number 18 of 2004. In principle, PTPN V establishes a mutually beneficial, respectful, interdependent and mutually responsible partnership with farmers.

The efforts made by oil palm farmers in Keranji Guguh Village to overcome the replanting period divide in external efforts and internal efforts. As for external efforts, namely the assistance of the Siak Regency Government in the form of livestock including ducks, chickens and catfish. However, this assistance does not really contribute to income for oil palm farmers because those who get help from catfish and chickens have died and many who get help from ducks complain that duck feed is quite expensive. Because the assistance provided by the Siak Regency government was only once and it is coincided with the replanting period of oil palm when farmers' income decreased. While social welfare is one of the human rights, for that the government strives to fulfill this right with various efforts and policies in order to achieve a change. The intended change is to make society more prosperous and better off than the previous condition. As for internal efforts are efforts made by oil palm farmers themselves, the farmers working as casual daily laborers.

References

- [1] Lubis, Rustam Effendi, Windanarko, Agus, 20011. Palm Oil Smart Book, PT. Agromedia Pustaka, Jakarta.
- [2] <http://RiauSidik.com>, Initial Planting of Oil Palm Rejuvenation is Implemented Directly by the Regent of Siak, accessed on 26 June 2019.
- [3] Bungin, Burhan, 2007. Qualitative Research, Prenadamedia Group, Jakarta.
- [4] Darwis, Ichsan, 2015. The Impact of the Existance of Oil Palm Companies on Community Social Welfare in Bulu Mario Village, Mamuju Utara District, Hasanuddin University.
- [5] Decree of the Minister of Agriculture No: 18/Permentan/KB.330/5/2016 concerning Guidelines for the Rejuvenation of Oil Palm Plantations.
- [6] Subandriyo, 2016. The Influence of Government Policy on Income of Cocoa Farmers in Jayapura Regency, Deepublish, Yogyakarta.
- [7] Badrun, M, 2015. Milestones for Change through PIR of Palm Oil to Build the Nation, Directorate General of Plantation, Ministry of Agriculture of the Republic of Indonesia, Jakarta.
- [8] Anonymous b, 2016, Guidelines for Getting Grants for the Rejuvenation of Smallholder Palm Oil Plantations, Jakarta, the Palm Oil Plantation Fund Management Agency (BPDP Sawit) - Indonesia Estate Corp Fund for Palm Oil / IECF Palm Oil.
- [9] Andriat, 2018. Strengthening the Institutional Aspects of the Plantation Revitalization Program for the Rejuvenation of Plasma Oil Palm Plantations. Journal of the Center for the Assessment and Development of Agricultural Technology, 2 Bogor Soil Research Institute.
- [10] Hutasoit, F., Hutabarat, S., Muwadi, D. 2015. Analysis of the perceptions of independent, RSPO-certified oil palm farmers in facing oil palm plantation replanting activities in Ukui District, Pelalawan Regency. Journal of Faperta Vol 2 No 1. Riau University. Riau, ID.
- [11] Herman M, Ferry Y, 2010. Oil Palm Rejuvenation. Journal of Plantation Technology Info Vol.2: Center for Plantation Research and Development. Herman M, Ferry Y, 2010. Oil Palm Rejuvenation. Journal of Plantation Technology Info Vol.2: Center for Plantation Research and Development.
- [12] Ikhsan, Zahlul et al. 2019. Empowerment of the people of Nagari Silago, Dharmasraya Regency through oil palm cultivation technology. Journal of Downstream Science and Technology Vol. 2 No.4.b (2019); December 2019. Website.<http://downstream.lppm.unand.ac.id>. e-ISSN: 2621-7198.
- [13] Kartasasmita, S. 2005. Regional Autonomy in Plantation Development in Indonesia. Proceedings of the National Seminar on Community Oil Palm Plantations: Empowering Smallholder Oil Palm Plantations as Efforts to Strengthen the People's Economy. Pekan Baru, 15-16 April 2005. Oil Palm Research Center. Field. Thing. 35-45.
- [14] Koedadiri, A.D., W. Darmosarkoro and E.S Sutarta. 2005. Potential and Management of Ultisol Soil in Several Oil Palm Plantation Areas in Indonesia. In W. Darmosarkoro, E.S. Sutarta and Winarna (Eds.). Land and Oil Palm Fertilization. Oil Palm Research Center. Thing. 1 – 24
- [15] Melinda Noer, 2019. Preparation for Oil Palm Plantation Rejuvenation by Kud Suka Maju and KUD Bukit Jaya in Dharmasraya Regency, West Sumatra Province. Nagari Scientific Bulletin Building Vol. 2 No. 3, September 2019 Website. <http://buletinnagari.lppm.unand.ac.id> E-ISSN: 2622-9978.
- [16] Noer, M., Syarfi, W. Ira, Azhari, and Rafnel. 2018. Action plan for replanting oil palm plantations for the people of farmer groups. Journal of Downstream Science and Technology Vol. 1 No. 4b. December 2018. Website. <http://hilirisasi.lppm.unand.ac.id> e-ISSN : 2621-7198. Pages : 339-346.

- [17] Ngadi and Mita Noveria. 2011. Sustainability of Oil Palm Plantations in Indonesia and Prospects for development in Border Areas. Journal of the Population Research Center of the Indonesian Institute of Sciences.
- [18] Pulungan, M. 2012. Strategies for Rejuvenating Plasma Pattern Oil Palm Plantation in Pangkalan Kuras District, Palalawan Regency. Thesis. Riau University, Pekanbaru.
- [19] Purwonugroho, T. 2013. Feasibility Analysis of Plasma Pattern Oil Palm Plantation Business Rejuvenation in Sari Galuh Village, Tapung District, Kampar Regency. Thesis. Riau University Pekanbaru.
- [20] Puteri, MA. 2013. Feasibility Study of Palm Oil Matching Business through Cooperatives and Independent (Caseu in Harapan Makmur Village and Sekoci Village, Langkat Regency. Thesis to obtain a bachelor's degree in Economics at the Department of Agribusiness, Bogor agricultural University department of Agribusiness, Faculty of Economics, Management of Agricultural Institutes, Bogor.
- [21] Tarigan B, Sipayung T. 2011. Oil Palm Plantation in the Economy and Environment of North Sumatra. Bogor : IPB Press.
- [22] Saputri, Een, Readiness of Oil Palm Farmers in Facing Replanting Plantation Rejuvenation, FISIP Student Online Journal, University of Riau, Vol. 5 No. 1-April 2018.
- [23] Sahuri, 2019. Rubber Rejuvenation and Sustainable Rubber Intercropping Development Model in Indonesia. Perspectives Vol. 18 No.2 / Dec 2019. Pages 87-98 DOI: <http://dx.doi.org/10.21082/psp.v18n2.2019.87-98> ISSN: 1412-8004.
- [24] Susanti, E. 2014. Comparative Analysis of the Alternative Model of Conventional Oil Palm Rejuvenation with Underplanting Pattern of Smallholder Nucleus Plantation (PIR) in Sei Lambu Makmur Village, Tapung District, Kampar Regency. Thesis. Riau University, Pekanbaru.
- [25] Susanti, E., Hutabarat, S., Muwardi, D. 2014. Comparative analysis of alternative models of conventional oil palm rejuvenation with underplanting the Peoples Core Plantation (PIR) pattern in Sei Lambu Makmur Village, Tapung District, Kampar Regency. Journal of Faperta Vol 1 No 2. Riau University. Riau, ID.
- [26] Sutarta, E.S and Rahutomo, S. 2010. New Standard for FFB Yield of IOPRI's Planting Materials Based on Land Suitability Class. Field. Indonesian Oil Palm Research Institute (IOPRI).
- [27] Sutarta ES, Ginting EN, Rahutomo S. Santoso H, Susanto A. 2008. Oil Palm Rejuvenation Under Planting System, Strengths and Weaknesses. Medan (ID): Center for Oil Palm Research (PPKS). Thesis. Medan University.
- [28] Wulan, Dita Purnama, Actions of Oil Palm Farmers in Rejuvenating Plasma Oil Palm Plantations in Bukit Jaya Village, Ukui District, Palalawan Regency, FISIP Student Online Journal, Riau University, Vol. January 6-June 2019.
- [29] Wahyono, Teguh and Amalia Rizki. 2014. Contribution of Palm Oil as a Pillar of the Nation's Economy. Sawit Indonesia Online. Sawit Indonesia.com (December 2, 2016).
- [30] Wisnu Hari Wibowo, 2017. Oil Palm Rejuvenation (*Elaeis guineensis* Jacq.) At Seruyan Estate, Minamas Plantation Group, Seruyan, Central Kalimantan. Journal of the Department of Agronomy and Horticulture, Faculty of Agriculture, Bogor Agricultural University. Bul. Agrohorti 5 (1): 107 - 116 (2017).