



Research project of counterparts funded at UNJA

Name	Counterpart	Title
Mirawati Yanita, Gina Fauzia (Jambi University)	C01	The Positive outcomes of ISPO certification towards the sustainable management practices of palm oil of smallholders in Jambi Province

Research summary

The palm oil commodity business contributes to increased agricultural and employment incomes and reduced poverty (Byerlee, 2017; Qaim *et al.*, 2020). Smallholders benefit from palm oil cultivation by raising household living standards (Kubitza *et al.*, 2018). Indonesia is the world leader both in production and land area. The rapid expansion of oil palm plantation areas has substantial socio-economic implications (Euler *et al.*, 2017). The stage of development for oil palm plantations has shifted. Smallholders have dominated the ownership of oil palm plantations, especially in Jambi Province. While the number of oil palm smallholders who adopted ISPO certification is 1,006.92 hectares or only 16 percent in Jambi Province. ISPO certification is expected to be carried out consistently with good management practice implementation for the oil palm business.

The objective of the research is to describe the characteristics of independent oil palm smallholders who hold ISPO certifications based on good agricultural practices through social and economic analysis of problems based on the actual conditions.

The data analysis methods used in this study are qualitative descriptive analysis and quantitative analysis. The first objective was to analyze descriptively by collecting data related to the profiles of independent smallholders certified for social, economic, and ecological attributes. In comparison, the second objective was a problem based on the actual condition of independent oil palm farmers based on agricultural farming activities based on *Good Agricultural Practices (GAP) and Best Management Practices (BMP)* represented by the principles and criteria for independent schemes and farmers.

Based on a study of 75 ISPO farmers in the study area, the farmers' age was ranging from 25 to 74 years old. The age of farmers who adopted ISPO in the interval group of 49-56 years old was 25.33%, and the second largest was in the interval 41-48 years old at 21.33%. The level of farmer education varies from elementary to bachelor's degrees. Smallholders who obtained education at the elementary level had a higher rate of 54.67 %. The number of their family members ranges from 2 to 5 person. Smallholders who have a minimum of three members in their family had a larger percentage, it is 37.33 %. According to Anim (2011), the number of family members or labor providers in cultivation activities. Smallholders who have 11 to 13.9 years of farming experiences were the largest group, 31% respectively. On the other hand, the ISPO certification, it took place since 2018 only. Farmers have farm size from 1.93 to 3.15 hectares, was 57.33%. The average farm size of oil palm in this study was 2.9 hectares. Smallholders who reached 17.71 to 22.21 ton per ha of yield per year are 39.67%.

The value and acceptance of ISPO as a sustainability standard are expected to increase over time. However, the implementation of ISPO in the field has not shown significant incentives for smallholders. Some main challenges in imple-

Table 1. Outcomes in implementation of the production input

No	Input description	Small-holders	Norm
1	Farm size (ha/farmer)	2,9	-
2	Fertilizer		
	-Urea	305,9	204
	-NPK	317,9	340
	-KCL	304,8	272
	-TSP	317,9	306
	-Dolomite	111,3	272
	-Organic fertilizer	285,4	0
	Fertilizer used (kg/ha/year)	1649	1.394
3	Pesticide (liter/ha/year)	7,8	10
4	Labour		
	-Family Labour	0,2	-
	-Non-Family Labour	0,8	-
	Labour Amount (Working Labour day/ha/year)	1,0	-
5	Agriculture tools	11	-
6	Production (ton/ha/year)	26,7	27
7	Price (IDR/kg)	1.994	2.010

menting ISPO certification include land tenure status, traceability, farmer inclusivity, transparency, and the certification mechanism. To overcome these obstacles, several options to improve are needed, such as streamlining licensing procedures with improved governance, enhancing the capacity of independent farmers, developing the capacity and institutions of independent farmers through training, establishing regular extension services, providing access to funding, and ensuring price stability at market.

References

- Byerlee D (2017) The Role of Crop Science in Opening Commodity Frontiers (Issue 27) <https://commoditiesofempire.org.uk/files/2017/03/WP27.pdf>
- Qaim M, Sibhatu KT, Siregar H, Grass I (2020) Environmental, economic, and social consequences of the oil palm boom. *Annual Review of Resource Economics* 12: 321–344 [doi: doi.org/10.1146/annurev-resource-110119-024922](https://doi.org/10.1146/annurev-resource-110119-024922)
- Kubitza C, Krishna VV, Alamsyah Z, Qaim M (2018) The Economics Behind an Ecological Crisis: Livelihood Effects of Oil Palm Expansion in Sumatra, Indonesia. *Human Ecology* 46: 107–16
- Euler M, Krishna VV, Siregar H, Qaim M (2017) Differential Livelihood Impacts of Oil Palm Expansion in Indonesia. *Agricultural Economics* 48: 639–53
- Francis DK (2011) Factors Affecting Rural Household Farm Labour Supply in Farming Communities of South Africa. *J Hum Ecol* 34: 23–28