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## The Prosperity Level of Plasma Palm Oil Farmer's Family in the State Border Area during the New Normal Era

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### Abstract

#### **Keywords:**

border area;  
new normal;  
plasma  
farmer;  
prosperous  
family

This study aimed to investigate and analyze: the demographic characteristics, prosperity levels, and factors affecting the prosperity level among the plasma palm oil farmers during the new normal era. This study was conducted in a palm oil plantation area, Kembayan, Sanggau Regency, West Borneo from August to July 2020. Primary data were collected using a questionnaire that directly distributed to the participants. The level of prosperity was measured by the prosperous family indicators from the National Population Planning and Family Board and poverty line indicators from the National Statistical Institute. A descriptive quantitative, descriptive qualitative, and multinomial logit regression analysis applied to address the study's objectives. Findings revealed that 51%, 23%, 17%, 8%, and 1% of the farmer's family were classified into the prosperous family level III plus, prosperous family level III, prosperous family level II, prosperous family level I, and pre-prosperous family category, respectively. According to poverty line indicators, all farmer's state of living were placed above the line of poverty. These findings signified that palm oil businesses in the state border area were providing sufficient amount of revenue for the farmers during the new normal era. The variabel of age, total plantation land area, and income were associated with the farmer's family prosperity level.

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## INTRODUCTION

Palm oil (*Elaeis guineensis Jacq*) is an uppermost plantation commodity with abundant economic advantages. Palm oil business also proposes a multiplier effect on the economic growth. Palm oil plantation area development has been providing major contribution to the national foreign-exchange reserve, generating intensive workforce employment and adding potential stream of income for the farmer, offering additional sources for the local revenue, encouraging economic development acceleration, and boosting poverty eradication in the rural areas (Novahadi et al., 2013; Siradjuddin, 2015). Further, the plantation area development is mandating a proper provision and improvement of public facilities. Despite its beneficial influence on the national economic growth and development, in some points, the development of palm oil plantation area almost killed the social interactions and community self-help culture (Siradjuddin, 2015). The development of palm oil plantation areas are stimulating a more rapid mobilization, awaking several economic centres, and keeping the sustainable circulation of local money in the rural areas (Novahadi et al., 2013).

The palm oil fruit commodity production in 2019 reached the total of 51,443,315 tons (Directorate General of Plantation, 2019). Its export volume in 2019 was 29,135,179 or equivalent to US\$ 20,802,708,000. The palm oil crop production in Indonesia was managed by three major business groups: state-based plantation companies, private-based plantation companies, and community-based plantation area. Oil palm plantation areas stretch across 14,677,560 hectares in 2019, 41% of the area was belong to community-based plantation area. These areas had produced 14,846,112 tons of palm oil in the same year, amounted to 16% of the national palm oil crop production volume (Directorate General of Plantation, 2019).

According to the crop production volume and export value data, the selling value of the palm oil commodity was approximately IDR 441 billion. There were 2.67 million of family heads in Indonesia in the year of 2020. Hence, each farmer had obtained IDR 13,764,004 as their gross income in a month. A larger size of plantation area and higher production volume level would produce greater income for the farmers (Siradjuddin, 2015).

Covid-19 pandemic have been delivered devastating and domino impacts on various aspects of life: health, social, economic, finance, and politic. Pinilih et al. (2021) highlighted the drastic declines on the Farmer Exchange Rate (FER) during the pandemic, indicating severe slacks in world economic activities. The plantation farmer's family requires adequate strategies to adjust and protect their income during this overwhelming situation, while the cost of living were going up sharply during the pandemic due the need of health protection (Silaban et al., 2021) (Relawati et al., 2021).

FER is an indicator applied to evaluate the level of prosperity on the farmer population. Covid 19 brings direct global impact to the agricultural sector. Physical distancing and stay-at-home measures were enforced by the national stakeholders to flatten the curve of virus infection. These mass quarantine triggered “pandemic panic” behaviors worldwide. People were flocking to supermarket, stocking agricultural products in their home (Jámbor et al., 2020). The majority of palm oil farmers completely depended on the profit from the fresh palm fruit bunches sales during the pandemic. Its price was relatively fluctuative, causing major decrease in their income (Yunus et al., 2019).

Border state’s area is a strategic site in a country, offering essential functions and values as the vital gate of economy and trade activities with environmentally sound properties. This area potentially drives broad economic benefits (prosperity approach) and strengthen national border defense and security (security approach). Due to these major contributions, a thorough scientific investigation requires to be conducted on the local population, especially among the palm oil famers who were living in Indonesia-Malaysia (Serawak) land border area. Recent study examined the prosperity level among the palm oil farmers in Sanggau Regency. To the best of our knowledge, studies related to the agricultural resource development and poverty subject in the border’s state area was rarely directed.

The agricultural prosperity level in a country could expose the progress of their national development. The Act Number 11 of 2009 defined social welfare as a fulfillment state from the material (clothing, food, and housing), spiritual, and social need of the citizen to live a decent life and develop themselves fully, adequately performing their social functions. National Population Planning and Family Board groups the level of prosperity into five phases that encompasses several living need indicators: basic, psychological, developmental, dan self esteem needs (Hakim & Sugiyanto, 2018). National Statistical Institute also mentions eight family prosperity indicators: income, consumption cost or expenditure, living situation, living facilities, family health status, healthcare access, access to quality education, and access to transportation services (Munardi & Situmorang, 2018).

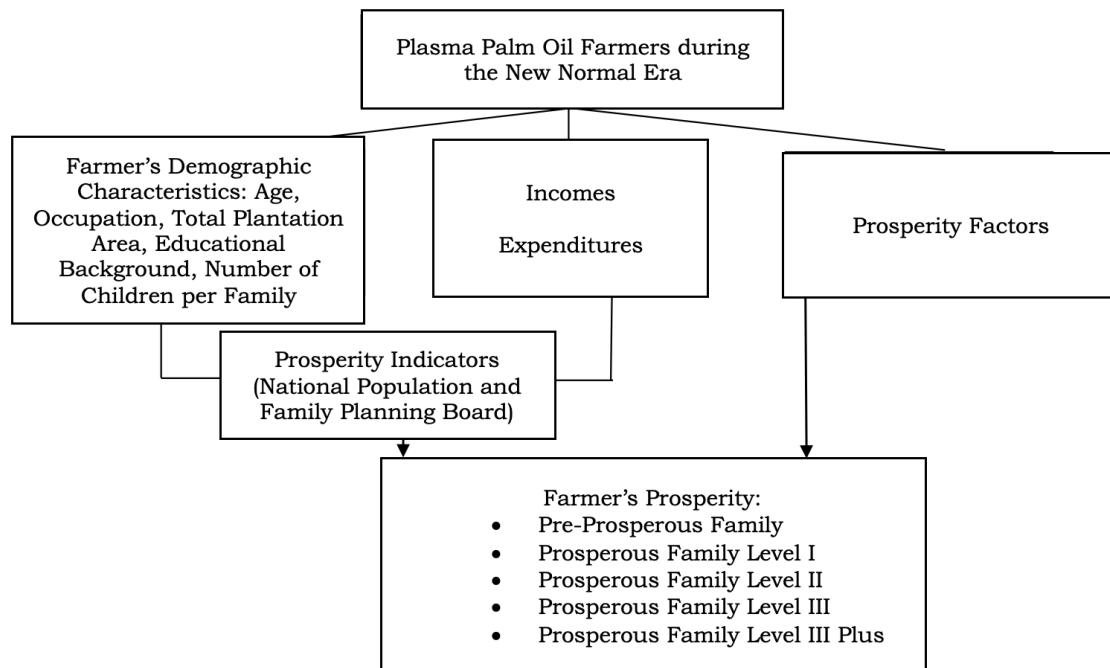
The study novelty was the analysis on palm oil farmer’s family prosperity level on the state border area, involving several variables: age, educational level, number of children, occupation and total plantation land area, income and expenditure. This study offered in-depth analysis on a novel target of study population, palm oil farmers in the state border area, that rarely identified in previous studies. This study aimed to know and analyze: 1) the demographic characteristic of the palm oil farmers, 2) their level of prosperity during the new normal era, and 3) factors affecting their prosperity level.

## **RESEARCH METHOD**

### **Study Framework**

Farmer’s demographic characteristics, prosperity levels, and factor affecting the prosperity level of plasma palm oil farmers were applied to asses the farmer’s prosperity level during the new normal era. Shred of scientific evidences has confirmed the influence of farmer’s demographic characteristic, income, and expenditure on the level of family prosperity. We enrolled the prosperity indicators that had been introduced by the National Population Planning and Family Board in

this study. Further analysis was also conducted to discover dominant factors affecting the level of prosperity among the plasma palm oil farmers. Figure 1 showcases the framework of the recent study.



**Figure 1. Study Framework**

**Study Location and Duration**

This study was conducted in palm oil plantation area in Sanggau Regency, West Borneo Province, the state border area of Republic of Indonesia, from July to November 2020. Farmers elected Perkebunan Nusantara XIII Inc. (Limited Liability Company), especially Kebun Kembayan, as their business partner, due its eligible position. Kebun Kembayan was the nearest plantation area to Indonesia-Malaysia (Serawak) land border area.



**Figure 2. Study Area Location Map of Kebun Kembayan Palm Oil Plantation Area**

Source: <https://www.google.com/search?q=peta+kabupaten+sanggau+kalimantan+barat>

Annotation:

: Kebun Kembayan

### **Population and Sample**

Thirty-hundred-and-twenty-two-eight family heads who had lived in the state border area considered as the study population. According to the inclusion criteria, 100 hundred plasma palm oil farmers were recruited. Study participants were plasma palm oil farmer in Kebun Kembayan area, Sanggau Regency, member of Perkebunan Nusantara XIII Inc. Farmer Group. The level of farmer prosperity was classified into five categories according to criterias established by National Population Planning and Family Board: Pre-Prosperous Family, Prosperous Family Level I, Prosperous Family Level II, Prosperous Family Level III, and Prosperous Family Level III Plus.

### **Data Collection**

Primary data were collected by a direct questionnaire distribution. The number of participants was established based on fact-finding process. The questionnaire listed questions that correlated to demographic profile of the farmer and the prosperity level indicators: age, occupation, total plantation land area, educational background, number of children, income, expenditure, and level of prosperity.

In-depth interview was also conducted to gather primary data from the palm oil farmers. We also arrange in-depth interview sessions with related institutions to complement the study data: Perkebunan Nusantara XIII Inc., farmer's business partners, other private-based plantation companies, local authorities, and Sanggau Regency Local Plantation Department.

### **Data Analysis**

The first objective analyzed by using data collected from the questionnaire and in-depth interview/field observation, employing a quantitative and qualitative analysis, respectively.

The second objective was also applied the descriptive quantitative and qualitative analysis to explore the prosperity level among the plasma palm oil farmers. Data tabulation was processed by using Microsoft Office Excel software program to group participant's prosperity level according to criterias set by the National Population Planning and Family Board. National Population Planning and Family Board classified the family prosperity level into five categories:

a. Pre-Prosperous Family

A family falls into this category if they did not meet one from six indicators of prosperous family level I or "basic need" indicators.

b. Prosperous Family Level I

A family capable to fulfill six indicators of a prosperous family level 1, but have not meet one from eight indicators of prosperous family level II or "psychological needs" indicators.

c. Prosperous Family Level II

A family classifies into this category if they meet six indicators of a prosperous family level I and eight indicators of prosperous family level II, however fails to fulfill one from five indicators of prosperous family level III or "develomental needs" indicators.

d. Prosperous Family Level III

If a family capable to meet six indicators of a prosperous family level I, eight indicators of prosperous family level II, and five indicators of prosperous family level III, but have not fulfill one of two indicators of prosperous family level III plus or “self esteem” indicators, they will fall into prosperous family level III.

e. Prosperous Family Level III Plus

A family classifies into prosperous family level III plus if they capable to meet six indicators of a prosperous family level I, eight indicators of prosperous family level II, and five indicators of prosperous family level III, and two indicators of prosperous family level III plus.

The third objective was investigated using a multinomial logit method that formulated as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Where:

Y	=	Farmer Level of Prosperity, with ordinal scale:
		1 = Pre-Prosperous Family
		2 = Prosperous Family Level I
		3 = Prosperous Family Level II
		4 = Prosperous Family Level III
		5 = Prosperous Family Level III Plus
X <sub>1</sub>	=	Age (Years)
X <sub>2</sub>	=	Total Plantation Area (m <sup>2</sup> )
X <sub>3</sub>	=	Income (IDR/month)
a	=	Intercept
b <sub>1</sub> , b <sub>2</sub> , b <sub>3</sub>	=	Log Likelihood
e	=	error of estimation.

## RESULT AND DISCUSSION

### Palm Oil Demography Characteristics

We examined several demographic characteristics among the palm oil farmers: age, occupation and total plantation land area, number of children, educational background, income and expenditure. Table 1 shows the demographic characteristic of the farmers.

The majority of the farmers were aged between 42 to 47 years old (28 participants). There were 23 participants, 16 participants, and 23 participants were aged between 36 to 41, 30 to 35, and 48 to 59 years old, respectively. Eight participants in total were aged between 24 to 29, 60 to 65, and 66 to 70 years old. National Statistical Institute grouped the population under the age of 15 to 64 as a productive age group, ideal age for the working age population. However, Victor et al. (2018) claimed that palm oil farmer who were aged between 40 to 50 years old had a higher productivity level due to their experiences in palm oil business and industries. (Firmansyah, 2013) also discovered that productive age for worker on hair-industrial-business was between 20 to 40 years old. According to the previous studies, we concluded that 95% of the participants were classified into productive age group with a high productivity level and income. Family's total income is an essential indicator of the prosperity level, according to criterias established by the National Population Planning and Family Board and National Statistical Institute.

Several studies had confirmed that farmers who were aged between 46 to 50 years old presented a higher level of productivity in the agricultural industries. They have earned better critical thinking and problem-solving skill. They also seemed to be more sharp on decision making processes and had sufficient level of knowledge in managing their business (Victor et al., 2018). Farmer's age also closely associated with their well-being (Novahadi et al., 2013). The age factor has widely established as major factors affecting the physical endurance and strength. Older age would link to lower physical strength and level of activity. Level of activity, job performance, and productivity would decrease after the productive period. Worker in their productive period is generally having higher productivity and making more money (Oktiani et al., 2019). The age factor brings positive and significant impact on worker's productivity. Older farmers had showed a higher level of job performance, in comparison with the younger farmer (Firmansyah, 2013).

The majority of participants (75%) were only working as palm oil farmers in Kebun Kembangan. Only a few of them were also working as state's own enterprises' employee, private sectors' employee, driver, or self-employed entrepreneurs. The majority of farmers were managing less than two hectares palm plantation areas (53 participants). Twenty-eight participants managed approximately 2 to 3.8 hectares plantation areas, and the rest of the participants were managing 3.9 to 15 hectares plantation areas. Previous studies have demonstrated the significant impact of the size of total plantation area on the income among the farmers (Yunus et al., 2019).

**Table 1. Participant's Demographic Characteristic**

No.	Characteristic	Category	Number of Participants (n)
1.	Age	24 - 29 years old	3
		30 - 35 years old	16
		36 - 41 years old	23
		42 - 47 years old	28
		48 - 53 years old	11
		54 - 59 years old	12
		60 - 65 years old	4
2.	Occupation and Total Plantation Area	0 - 1.9 Ha	53
		2.00 - 3.8 Ha	28
		3.9 - 5.6 Ha	7
		5.7 - 7.5 Ha	5
		7.6 - 9.3 Ha	1
		9.4 - 11.2 Ha	1
		11.3 - 13.1 Ha	2
3.	Educational Background/Attainment	13.2 - 15.00 Ha	1
		Did not go to school	1
		Did not finish elementary school	13
		Elementary School	22
		Junior High School	22
		Senior High School	36
4.	Number of Children	University (Vocational/Bachelor Degree)	6
		1	27
		2	33
		3	17
5.	Income Total (IDR,	4	6
		< 3	14
		3- 5	40



Million/Month)		5 - 8	25
		> 8	19
6.	Expenditure	1.1 - 3.8	55
	Total (IDR, Million/Month)	3.8 - 6.5	30
		6.51 - 9.2	6
		9.21 - 11.9	7
		14.61 - 17.3	1
		20 - 23	1

The majority of farmers were graduated from senior high school (36 participants). Only six participants pursued higher education in the university level with vocational or bachelor degree. Forty-four participants in total were graduated from elementary school and junior high school. One and thirteen participants did not attend any school and finish elementary school, respectively. Victor *et al.* (2018) discovered a strong link between level of school attainment and farmer's well-being. Higher school attainment would construct better plantation management skills, generating a higher prosperity level among the farmers. Educational background was also associated with farmer's experiences in managing palm oil crop production.

A higher educational background associates with better skill, knowledge, and productivity (Firmansyah, 2013). Additionally, an education attainment would closely attach to the type and level of occupation. A higher level of occupation and salary is generally achieved by individuals with higher level of education attainment (Oktiani *et al.*, 2019).

Findings reported that the majority of the farmers had two children (33 participants). Twenty-seven and seventeen participants had one child and three children, respectively. Purwanto & Taftazani (2018) stated that the number of dependant would affect the level of prosperity in a family. The number of dependants would inversely propotional with the amount of total income earned in a family. Therefore, in several literatures, number of dependants is frequently applied as one of the indicators of prosperity.

Findings yielded that 41%, 26%, 19%, and 14% of the farmers were earning three to five million per month, five to eight million per month, more than eight million per month, and less than three million per month, respectively. Munardi and Situmorang (2018) in their study discovered that the total of income among the farmers was highly affected by the total plantation area and their capital. Recent studies also found the influence of expenditure (production and living cost in a month), crop productivity (palm fresh fruit bunches), and total cost of credit on the total income earned by the farmers. The total of income after completely paying off the credits had significantly affected the level of income of the palm oil farmer (Firman *et al.*, 2018).

The total expenditures among 55, 30, and 6 study partisipants were ranging from IDR 1.1 to 3.8 million, 3.81 to 6.5 million, and 6.51 to 9.2 million, respectively. Only one farmer spent more than IDR 20 million in a month. Further, the National Economy Survey in 2020 also elaborated the expenditure cost among farmers in Sanggau Regency. The average of food per capita expenditure and non-food per capita expenditure was IDR 535,416 (53.6%) and IDR 463,515 (46.4%), respectively, with the total expenditure of IDR 998,896. The proportion of expenditure could express the prosperity level of a community.

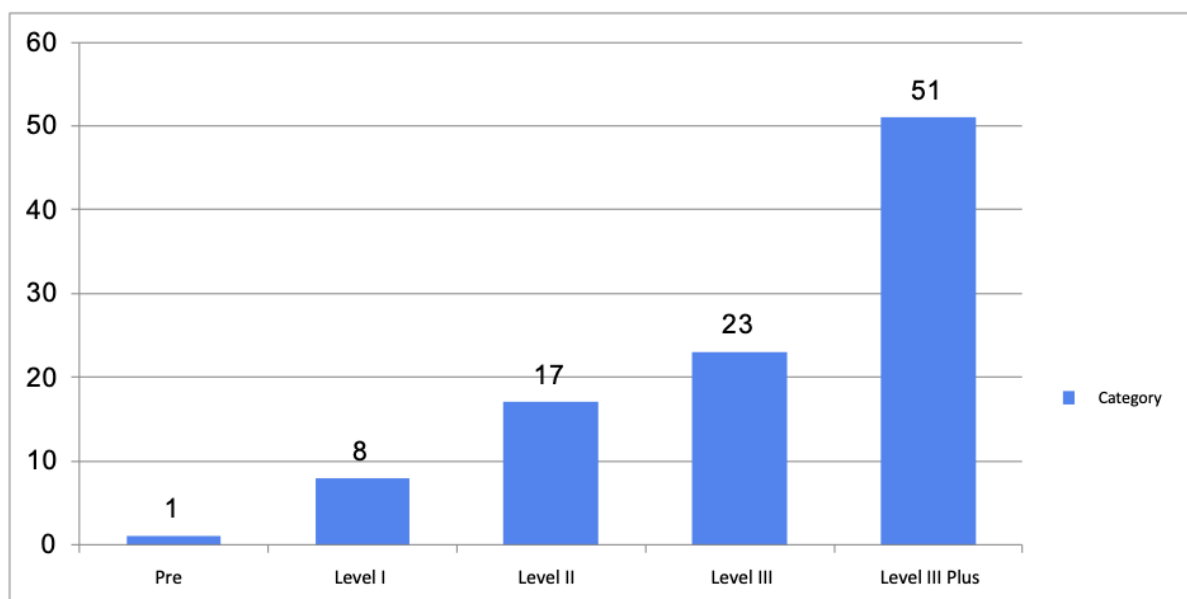


According to the survey, the average of palm oil farmer's household expenditure total in Kebun Kembayan, Sanggau Regency was above the average of per capita expenditure among the local population in Sanggau Regency, with the total of >IDR 900,000/month. Human Development Index data from the National Statistical Institute in Sanggau Regency in the year of 2020 presented that the per capita expenditure adjustment had reached the total of IDR 8,245,000 per year. This statistical confirmation signified that the average of per capita expenditure among farmers in the state border area was higher than the average of per capita expenditure among the general local population in Sanggau Regency. In addition, the result from the in-depth interview sessions confirmed that highest expenditure among the farmers were spent on the crop production process and their children education needs. This finding was parallel to a study conducted by Purba et al. They also found that the income earned by the farmers mostly spent on their children education need, followed by house renovation and expansion, vehicle purchases, and plantation area development. The highest non-food expenditure and food expenditure cost were spent on educational related cost and rice purchasing, respectively. Major family expenses are usually concentrated on food, clothing, housing, secondary need, health, education, and spiritual mean (Putri, 2013).

### **The Prosperity Level of Plasma Palm Oil Farmer in Kebun Kembayan**

One's wellness or prosperity level could be measured by several aspects of life: physical, material, mental, and spitual (Purwanto & Taftazani, 2018). We classified the level of prosperity according to the indicators of prosperous family that had been established by the National Population Planning and Family Board: Pre-Prosperous Family, Prosperous Family Level I, Prosperous Family Level II, Prosperous Family Level III, and Prosperous Family Level III Plus. The majority of participants (51%) was classified into Prosperous Family Level III Plus. They have fulfilled two indicators of Prosperous Family Level III Plus: (1) capable of donating regularly or participate voluntarily on social charities and (2) capable of participating or being an active member on the social/foundation/community organizations/activities. They were capable in fulfilling six indicators of a prosperous family level I, eight indicators of prosperous family level II, five indicators of prosperous family level III, and two indicators of prosperous family level III plus.

One percent of the farmer in the state border area was classified into pre-prosperous family. Their family did not meet one from six indicators of prosperous family level 1 or "the basic need" indicators. This finding was parallel with Purba et al. (Firmansyah, 2017) that conducted a study in Rokan Hulu Regency. Their finding elaborated the capability of the farmer family in meeting their household daily needs. Figure 3 elaborates the level of prosperity among palm oil farmers in Kebun Kembayan.



**Figure 3. The Level of Prosperity of Palm Oil Plasma Farmer in Kebun Kembayan**

The recent findings were contrary with Novahadi et al. (2013). They found that 39.47%, 2.63%, 42,11%, and 15,79% farmers were classified into pre-prosperous family, prosperous family level I, prosperous family level II, prosperous family level III, and prosperous family level III plus category, respectively. National Statistical Institute (2000) explained that the prosperity level of a household in area could be identified by several indicators: family income level, the proportion of household expenditures: by comparing the household expenditure on food and non-food consumption/cost, family educational background, family health status, and house condition or living facilities in their house.

A study by Novahadi et al. (2013) identified the level of the farmer's family prosperity according to National Population Planning and Family Board indicators. They found that 39.47%, 2.63%, 42,11%, and 15,79% farmers were classified into pre-prosperous family, prosperous family level I, prosperous family level II, prosperous family level III, and prosperous family level III plus category, respectively. In addition, Victor et al. (2018) also conducted a study to know the level of farmer's family prosperity in palm oil plantation area of PT. Agronusa Investama, Sebatih Village, Sengah Temila District, Landak Regency. They concluded that the majority of farmer's family were living in prosperous state.

#### **Factors Affecting the Farmer's Family Prosperity Level**

The result from the multinomial logit regression analysis is presented in Table 2. The value of pseud-R-Square of 0.921 presents the model's constant. This value signified the capability of the independent variables in explaining 92.1% of dependent variable variation (prosperity level). The remaining percentage indicated that 7.9% of the dependent variable variation (prosperity level) would be explained by other factors in the model.

**Table 2. Multinomial Logit Regression Analysis on Factors Affecting the Farmer's Family Prosperity Level**

Effect	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig
Intercept	17.06 <sup>a</sup>	.00	0	
Age	22,994.78 <sup>b</sup>	22,977.72	72	.000
Plantation	129.13 <sup>b</sup>	112.07	92	.076
Land Area				
Income	132.94 <sup>b</sup>	115.88	96	.082

Table 2 shows that the variable of age had the lowest significance value (.000). This finding indicated that the variable of age had delivered a positive impact on farmer's family prosperity level with the margin of error of 1%. In comparison with the plantation land area and income variable, this variable also had the highest positive value of Log Likelihood from the model. This statistical finding emphasized that the older age would produce higher prosperity level. Head of farmer family with older age is more likely to gain more skill in their financial management, implementing adequate saving for their family or slowly organize a house renovation (two indicators that listed on family prosperity). Their financial management would highly affect the family's prosperity level. This result was similar to a study conducted by (Novahadi et al., 2013; Victor et al., 2018). They found a close correlation between age and farmer's well-being. Additionally, a study declared that age associated with experiences, and these experiences would affect their productivity and income eventually (Firmansyah, 2013). Age and experience would improve the agriculture productivity and efficiency (Galawat & Yabe, 2012).

The next statistical significance order was the total land plantation area and income per month. A larger size of total land plantation area and income would contribute to a higher level of prosperity. The significance values of the both variables were quite weak, <10%, however it was generally accepted in social studies. The value of the Log Likelihood from the model was positive. This finding signified that the larger size of plantation area would link to higher level of income. This situation would also contribute to a higher level of prosperity. These statistical findings considered as normal and rational discoveries. The social-economy situation of the farmers considered in normal state, indicating that a larger size of land and income would produce a higher level of prosperity. No variables that may likely distort the prosperity level was identified in the recent study. Further, similar study also found the land access as an essential factor of financial performance improvement among the small farmers (Ayompe et al., 2021). Previous study also discovered the influence of total land plantation area on the farmer's income. The larger size of cultivated land area would link to higher level of income (Munardi & Situmorang, 2018; Yunus et al., 2019). However, a study showed contrary finding. (Lalita et al., 2019) had found that the size of land did not associate with the level of prosperity among the farmers.

Findings confirmed the correlation between the amount of income and palm oil farmer prosperity level. Previous study also discovered similar findings. (Mehraban et al., 2021) in their study yielded that palm oil business had improved the farmer's prosperity level and reduced the risk of financial issues among

marginal farmer family in Indonesia. Another study also confirmed the advantageous effect of palm oil agricultural business among small farmers (Budiasa, 2002), and the income from the business had contributed to their prosperity (Firman et al., 2018).

#### Study Limitation

This study did not consider external co-founding factors that may deliver major influence on the level of prosperity among the palm oil plasma farmers. Accessibility, facility, and infrastructure in the field of economic, health, and educational also contribute substantial support on the establishment of a prosperous family. We also did not include factors that might affecting the farmer income on the analysis. Adequate cultivation management practices, drainages, fertilization, and pest control factor directly affect the palm oil production that will increase farmer's income (Herdiansyah et al., 2020).

### **CONCLUSION**

Finding reported that 51%, 23%, 17%, 8%, and 1% farmers were classified into prosperous family level III plus, prosperous family level III, prosperous family level II, prosperous family level I, and pre-prosperous family, respectively. Additionally, according to National Statistical Board's Poverty Line Indicators, all participants' state of living was placed above the poverty line. These findings signified that palm oil businesses in the state border area were providing adequate amount of revenue for the farmers during the new normal era.

Recent study also yielded the influence of farmer's age, total plantation land area, and income on the level of prosperity. Age was also reported as the dominant factor affecting the level of prosperity among the farmer families. Older age associated with better financial budgeting (saving practices) and prosperity expansion. A higher level of income and plantation land area also produced a higher prosperity level.

### **RECOMMENDATION**

We highlighted the need of plantation area access improvement through land ownership, land-lease, land/profit-sharing, and land-use and property rights to enhance the income and the farmer prosperity. Younger farmer is also demanded to improve their plantation land financial performance by delivering high quality cultivation practices, supporting their family prosperity. Future study suggested organizing a more detailed analysis for factors that may affect farmer's income as a prosperity factor, also adding more external factor for a more comprehensive discussion.

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**REFERENCES**

- Ayompe, L. M., Nkongho, R. N., Masso, C., & Egoh, B. N. (2021). Does investment in palm oil trade alleviate smallholders from poverty in Africa? Investigating profitability from a biodiversity hotspot, Cameroon. *Plos One*, 16(9 September), 1–17. <https://doi.org/10.1371/journal.pone.0256498>
- Budiasa, I. (2002). Studi Kelayakan Proyek Perkebunan Kelapa Sawit Pt. Henrison Inti Persada, Papua. *SOCA: Socioeconomics of Agriculture and Agribusiness*, 2(2), 1–19. <https://ojs.unud.ac.id/index.php/soca/article/view/4009>
- Ditjenbun. (2019). Statistik Perkebunan Indonesia 2018-2020. *Secretariate of Directorate General of Estates*.
- Firman, F., Suyatno, A., & Kurniati, D. (2018). Analisis Tingkat Pendapatan dan Kesejahteraan Petani Kelapa Kabupaten Sintang. *Perkebunan Dan Lahan Tropika*, 8(2), 61–66. <https://doi.org/10.26418/plt.v8i2.29799> P-ISSN
- Firmansyah, Z. (2013). Analisis Pengaruh Umur, Pendidikan, dan Upah Terhadap Produktivitas Tenaga kerja. *Economic Development Analysis Journal*, 2(4), 446–455.
- Firmansyah, Z. (2017). Analisis Pengaruh Umur, Pendidikan, dan Upah terhadap Produktivitas Tenaga Kerja. *Economics Development Analysis Journal*, 4(1). <https://doi.org/10.15294/edaj.v4i1.14808>
- Galawat, F., & Yabe, M. (2012). Evaluation of technical, allocative, and economic efficiency in rice production; A case study on rice farmers in brunei darussalam. *Journal of the Faculty of Agriculture, Kyushu University*, 57(1), 317–325. <https://doi.org/10.5109/22086>
- Hakim, L., & Sugiyanto, E. (2018). Manajemen Perubahan Organisasi Sebagai Upaya Peningkatan Kinerja Perusahaan di Industri Batik Laweyan Surakarta. *Benefit: Jurnal Manajemen Dan Bisnis*, 3(1), 49. <https://doi.org/10.23917/benefit.v3i1.6562>
- Herdiansyah, H., Negoro, H. A., Rusdayanti, N., & Shara, S. (2020). Palm oil plantation and cultivation: Prosperity and productivity of smallholders. *Open Agriculture*, 5(1), 617–630. <https://doi.org/10.1515/opag-2020-0063>
- Jámbor, A., Czine, P., & Balogh, P. (2020). The impact of the coronavirus on agriculture: First evidence based on global newspapers. *Sustainability (Switzerland)*, 12(11). <https://doi.org/10.3390/su12114535>
- Lalita, R., Ismono, R. H., & Prasmatiwi, F. E. (2019). Kajian Sosial Ekonomi dan Tingkat Kesejahteraan Rumah Tangga Petani Kelapa Sawit di Kabupaten Tulang Bawang. *Jurnal Ilmu-Ilmu Agribisnis*, 7(2), 195. <https://doi.org/10.23960/jiia.v7i2.195-202>
- Mehraban, N., Kubitzka, C., Alamsyah, Z., & Qaim, M. (2021). Oil palm cultivation, household welfare, and exposure to economic risk in the Indonesian small farm sector. *Journal of Agricultural Economics*, 72(3), 901–915. <https://doi.org/10.1111/1477-9552.12433>
- Munardi, & Situmorang, D. (2018). Faktor-Faktor yang Mempengaruhi Tingkat Kesejahteraan Petani Sawit di Kecamatan Gunung Meriah Kabupaten Aceh Singkil. *Jurnal Ekonomi Pertanian Unimal*, 1(1), 23. <https://doi.org/10.29103/jepu.v1i1.788>
- Novahadi, R., Muani, A., & Imelda. (2013). Analisis Tingkat Kesejahteraan Keluarga Petani Kebun Plasma Kelapa Sawit PT. Prakarsa Tani Sejati (Studi Kasus di

- Desa Muara Jekak Kecamatan Sandai Kabupaten Ketapang). *Jurnal Sains Mahasiswa Pertanian*, 2(3), 1–10. <https://jurnal.untan.ac.id/index.php/jspp/article/view/3431>
- Oktiani, N., Utami, C. P., & Yuliantari, K. (2019). Pendekatan Clustering Budaya Organisasi dalam Upaya Peningkatan Kinerja Karyawan. *JKBM (Jurnal Konsep Bisnis Dan Manajemen)*, 6(1), 33. <https://doi.org/10.31289/jkbm.v6i1.2662>
- Pinilih, M., Rakhmawati, D., & Rosyidi, R. (2021). Farmers' term of trade in Indonesia: An overview during pandemic COVID-19. *IOP Conference Series: Earth and Environmental Science*, 746(1). <https://doi.org/10.1088/1755-1315/746/1/012012>
- Purwanto, A., & Taftazani, B. M. (2018). Pengaruh Jumlah Tanggungan Terhadap Tingkat Kesejahteraan Ekonomi Keluarga Pekerja K3L Universitas Padjadjaran. *Focus: Jurnal Pekerjaan Sosial*, 1(2). <https://doi.org/10.24198/focus.v1i2.18255>
- Relawati, R., Ariadi, B. Y., Bakhtiar, A., & Minasyan, S. (2021). The changes of household food expense during COVID-19 pandemic: A case study in Indonesia and Armenia. *SOCA: Journal of Socio-Economics of Agriculture and Agribusiness*, 15(2), 416–426. <https://doi.org/https://doi.org/10.24843/SOCA.2021.v15.i02.p16>
- Silaban, E. P. K., Satmoko, S., & Prayoga, K. (2021). The Livelihood Strategy of Rubber Tapper Households. *SOCA: Jurnal Sosial Ekonomi Pertanian*, 15(3), 427–438.
- Siradjuddin, I. (2015). Dampak Perkebunan Kelapa Sawit terhadap Perekonomian Wilayah di Kabupaten Rokan Hulu. *Jurnal Agroteknologi*, 5(2). <https://doi.org/10.24014/ja.v5i2.1349>
- Victor, A., Kurniawan, H. M., & Yuliarto, R. T. (2018). Analisis Tingkat Kesejahteraan Keluarga Petani Kebun Plasma Kelapa Sawit Pada PT. Agronusa Investama Di Kecamatan Sengah Temila Kabupaten Landak. *E-Jurnal Equilibrium* ..., 1(1), 1–7. <https://jurnal.upb.ac.id/index.php/equalibrium/article/view/58>
- Yunus, S., Zainal, S., & Jalil, F. (2019). Cooperation among farming stakeholders in farmers poverty reduction in aceh. *International Journal of Innovation, Creativity and Change*, 9(5).