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Variables Affecting Extreme Poverty of Agricultural Sector Households in Indonesia

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Abstract

This research aims to describe the characteristics of households and the variables that influence extreme poverty in agricultural sector households in Indonesia. This research used the Socio-Economic Survey 2022 with descriptive analysis and binary logistic regression. The results show that 20.78 percent of agricultural sector households are extremely poor. The characteristics of an extremely poor household are: the average number of household members is 5-6 people, the household head is male, the household head is of productive age, lives in a rural area, the maximum education level of the household member is a junior high school/equivalent, more than half of the household members have health insurance, and experience food insecurity, does not own their residence, no assets, no credit, not receiving non-cash government assistance, receiving Family Hope Program, the proportion of household members working is a maximum of 0.5, sanitation condition is poor, and no electricity available. Variables that influence the status of extremely poor households are the number of household members, age of household heads, classification of area of residence, food insecurity, asset ownership, credit ownership, Family Hope Program, housing ownership, proportion of household members working, sanitation condition, and availability of electricity.

Keywords: *Extremely Poor, Food Insecurity, Binary Logistic Regression,*
JEL Classification: I32, Q12, Q18

INTRODUCTION

Poverty is a complex problem related to individual and household welfare. Various efforts have been made to overcome problems related to poverty. However, poverty is still an issue for many countries in the world. Countries known to be developed also face poverty problems (Puspitasari & Triscowati, 2022). Therefore, poverty has become a global concern to be eradicated. The target for eradicating poverty is stated in the Sustainable Development Goals (TBG), namely, no poverty. Through Presidential Regulation Number 18 of 2020 on the 2020-2024 National Medium Term Development Plan, the Government of Indonesia set a poverty level target in 2024 of 6-7 percent to realize the SDGs goals.

Reducing poverty rates is one of the indicators of the government's strategy for overcoming poverty problems. Indonesia's poverty rate in 2022 was 9.54 percent compared to 2021, which was 10.14 percent (BPS, 2022). The figure includes the extreme poverty rate, a household or individual poorer than the population or poor households. The measurement of extreme poverty uses the international poverty line, which is 1.90 USD Purchasing Power Parity (PPP) 2011 per capita per day (World Bank, 2020). In 2021, Indonesia's extreme poverty rate was around 2.14 percent. Then, it will decrease by 0.10 percentage points in 2022 to 2.04 percentage points (TNP2K, 2022). However, there are still 14 provinces whose extreme poverty rates are above the national rate (Pungky Sumadi, 2022).

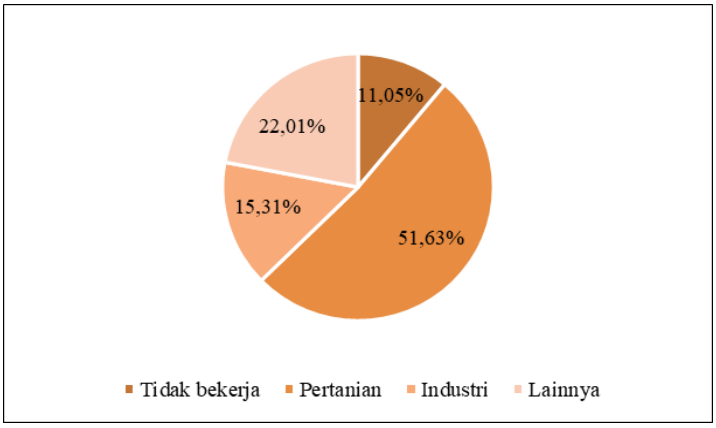

Figure 1. Percentage of Extreme Poor Households According to the Main Source of Income of the Head of Household (KRT). Source: Susenas March 2022

Poverty is closely related to households in the agricultural sector (Puspitasari & Triscowati, 2022). Even though the agricultural sector has an important role as a food provider and helps people get out of poverty (Gassner et al., 2019), Households whose primary source of income comes from the agricultural sector occupy the highest rank among households classified as poor, or about 49.89 percent (BPS, 2022). Apart from that, from Figure 1, it can be seen that the majority of households with extreme poverty status (51.63 percent) have their primary source of income from the agricultural sector. This is interesting because Indonesia is an agricultural country with vast agricultural land and superior agricultural potential. However, most poor households have a head of household working in the agricultural sector.

On March 4, 2020, at the Limited Meeting on the Strategy for the Acceleration of Poverty Alleviation, the President of the Republic of Indonesia, Joko Widodo, conveyed directions to accelerate the elimination of extreme poverty to reach zero percent by 2024. This target is six years faster than the SDGs target in target 1.1 to eradicate extreme poverty. The President of the Republic of Indonesia targets the level of extreme poverty to decrease by at least one percent every year. To accelerate the eradication of extreme poverty, the government issued Presidential Instruction Number 4 of 2022 concerning the Acceleration of the Elimination of Extreme Poverty, which is used as a basis for alleviating extreme poverty.

The agricultural sector is the primary sector of the Indonesian economy. The agricultural sector makes the third highest contribution after the processing industry, wholesale and retail trade sector; and car and motorbike repairs to Indonesia's GDP in 2022 (BPS, 2022). On the other hand, the agricultural sector is also the sector that absorbs the most workers. In February 2022, around 40.64 million workers were absorbed in the agricultural sector (BPS, 2022). Meanwhile, in August 2022, around 38.70 million workers were absorbed. However, most poor and extremely poor households come from households whose primary income source is the agricultural sector. Therefore, the agricultural sector might be the government's main focus to achieve zero percent extreme poverty.

From an economic perspective, the causes of poverty come from three things (Nurkse, 1953). First, poverty originates from unequal patterns in resource ownership, which cause inequality in income distribution. Second, poverty arises due to differences in the quality of human resources. Third, poverty results from each individual having different access to capital. The vicious circle of poverty theory explains that market imperfections, limited human resources and lack of capital in poor communities result in low productivity. and have an impact on low income. Low income can reduce poor people's ability to save. Low savings and investment can cause low capital owned. This condition occurs continuously and has no end (Kuncoro, 2010).

The impact of poverty that is not immediately resolved can become a more complicated problem and increasingly become an economic burden. All problems regarding economic development stem from poverty and inequality in income distribution (Todaro & Smith, 2003). Apart from that, poverty that is not immediately resolved can give rise to social problems such as crime. Poverty is related to a lack of basic needs and low human resources (Fachrurrozi et al., 2021; Putra et al., 2021).

Several researchers have conducted studies on poverty. Previous research discussed the effect of macroeconomic variables on poverty (Sumarsono, et al., 2022). Meanwhile, this research will focus on microeconomic variables that influence extreme poverty in agricultural households in Indonesia. Research conducted by Fatikhurrizqi and Kurniawan (2022) in East Java Province in 2020 used the binary logistic regression method. This research found that the BPNT social assistance program, the number of families in the household, and the residence's rental status significantly influenced the household's extreme poverty status. Meanwhile, the Family Hope Program, regional government assistance, and the household's electricity availability did not have a significant effect.

Research conducted by Yakubu (2021) grouped the factors that influence extreme poverty status into demographic, sociodemographic, and infrastructure factors. This research used the logistic regression method, and the results showed that household heads' education, number of household members, access to electricity, drinking water sources and sanitation had a significant effect on the extreme poverty status of households in Nigeria.

Based on the previous description, the study of extreme poverty, especially in agricultural sector households, has not been widely studied by researchers. Considering that the agricultural sector is vital for Indonesia's population, it is necessary to conduct research on extreme poverty in agricultural sector households. Thus, this research aims to (1) describe the condition of poor

households in the agricultural sector in Indonesia in 2022; (2) describe the characteristics of extreme poverty of poor households in the agricultural sector in Indonesia in 2022; (3) analyze variables that influence the extreme poverty status of poor households in the agricultural sector in Indonesia in 2022. The study results may provide priority policy suggestions that the government can implement to support extreme poverty reduction programs.

Hypothesis

Poverty can be caused by various characteristics, including regional, community, household and individual characteristics (Haughton and Khandker, 2009). Meanwhile, research by Yakubu (2021) groups the micro determinants of poverty into demographic factors, socioeconomic factors and infrastructure factors. In this research, the variables that influence the extreme poverty status of poor households in the agricultural sector are grouped into four: demographic, social, economic, and infrastructure.

The research variables used in this study which are included in the demographic characteristics are: number of household members (Astuti, 2018; Haddad & Ahmed, 2003; Aluko, 2003), household head gender (Haryanto et al., 2020; Todaro dan Smith, 2003; Rastantra, 2021), household head age, (Mutia, 2020; Haddad & Ahmed, 2003), urban-rural classification (Teguh & Nurkholis, 2011; Maharsi & Hadi, 2022; Garza-Rodríguez, 2004).

Social characteristics are household head education (Maharsi & Hadi, 2022; Teguh & Nurkholis, 2011), health insurance beneficiary (Rasyid et al., 2020; Haryanto et al., 2020; Dhongde & Haveman, 2015), food insecurity (Rasyid et al., 2020; Nurjanah et al., 2021; Maharjan & Joshi, 2009; Zuhri , 2019).

While economic characteristics include: housing ownership (Fatikhurrizqi & Kurniawan, 2022; Todaro & Smith, 2003), asset ownership (Jacobus et al., 2019; Anggraeni, 2009), credit ownership, (Azali & Harsanti, 2022; Haryanto et al., 2020; Runsinarith, 2011; Eyasu, 2020), non-cash government assistance (Fatikhurrizqi & Kurniawan, 2022), Family Hope Program, (Domri et al., 2019), the proportion of working household members (Arfiyanto, 2015); Widyanti et al., 2010; Airio et al., 2008). For infrastructure characteritics are: sanitation condition, (Adhitya et al., 2022; Raharyanti, 2013), electricity availability (Yakubu, 2021; Azwar & Subekan, 2016; Teguh & Nurkholis, 2011).

The research hypothesis in this study is as follows: Number of household members, household head gender, household head age, urban-rural classification, household head education, health insurance beneficiary, food insecurity, housing ownership, asset ownership, credit ownership, non-cash government assistance, Family Hope Program, the proportion of working household members, sanitation condition, and electricity availability have a significant influence on the extreme poverty status of agricultural sector households in Indonesia in 2022.

METHOD

The area covered for research is Indonesia, with a reference year of 2022. This research used secondary data from BPS Statistics Indonesia (BPS) Socio-Economics Survey (SUSENAS) raw data of March 2022. The unit of analysis in this research is agricultural sector households with poor status. The classification of households with poor status is based on the Poverty Line, regularly released by BPS. Meanwhile, the extremely poor status classification uses a cut-off point of 1.90 USD PPP.

Table 1. Characteristics and Categorization of Research Variables

Variables	Characteristics	Variables		Note
(1)	(2)	(3)		(4)
Respond variable		Y	Extreme poverty status of agricultural households	0: Not extremely poor* 1: Extreme poor
predictor	Demographic	X1	Number of household members	Numeric
		X2	Household head gender	0: Male* 1: Female
		X3	Household head age	0: Productive age* 1: Not productive age
		X4	Urban-rural classification	0: Urban* 1: Rural
		X5	Household head education	0: > Junior high school/equivalent* 1: ≤ Junior high school/equivalent
	Social	X6	Health insurance beneficiary	0: > 0,5* 1: ≤ 0,5
		X7	Food insecurity	0: No* 1: Yes
	Economics	X8	Housing ownership	0: Yes* 1: No
		X9	Assets ownership	0: Yes* 1: No
		X10	Credit ownership	0: Yes* 1: No
		X11	Non-cash government assistance	0: Receiving* 1: Not receiving
		X12	Family Hope Program	0: Receiving* 1: Not receiving
		X13	The proportion of working household members	0: > 0,5* 1: ≤ 0,5
	Infrastructures	X14	Sanitation condition	0: Adequate* 1: Poor
		X15	Electricity availability	0: Available* 1: Unavailable

The World Bank uses the Purchasing Power Parity (PPP) measure rather than the US dollar exchange rate in converting consumption estimates to compare poverty levels between countries. This is because inconsistent results can be obtained from converting a country's currency exchange rate to GDP and its

components. The PPP exchange rate is the number of units or currency from a country needed to buy several goods and services in the same quantity as goods and services that can be purchased for 1 USD (Todaro & Smith, 2003). Data regarding extreme poverty status was obtained from BPS with an estimated 11,633.2 IDR per capita per day or 348,996 IDR monthly.

The research used a household analysis unit with household heads working in the agricultural sector or agricultural households. Agricultural households are households in which at least one household member (ART), a head of household (KRT), or the primary wage earner in the household is economically active in the agricultural sector or carries out agricultural activities (United Nations, 1984). The agricultural sector includes six subsectors: rice and secondary crops, horticulture, plantations, fisheries, animal husbandry, forestry, and other agriculture. Based on this definition, researchers define agricultural households as households with a head of household who works in the agricultural sector.

This research uses descriptive analysis and inferential methods. Descriptive analysis in graphs and tables to obtain a general picture of poor households in the agricultural sector and the characteristics of extremely poor households in the agricultural sector. Meanwhile, inferential analysis uses binary logistic regression to determine the variables that influence the extreme poverty status of poor households in the agricultural sector. Table 1 presents the categorization of variables.

The research model using binary logistic regression equation is:

$$\hat{g}(x) = \hat{\beta}_0 + \hat{\beta}_1 X_1 + \hat{\beta}_2 X_2 + \hat{\beta}_3 X_3 + \hat{\beta}_4 X_4 + \hat{\beta}_5 X_5 + \hat{\beta}_6 X_6 + \hat{\beta}_7 X_7 + \hat{\beta}_8 X_8 + \hat{\beta}_9 X_9 + \hat{\beta}_{10} X_{10} + \hat{\beta}_{11} X_{11} + \hat{\beta}_{12} X_{12} + \hat{\beta}_{13} X_{13} + \hat{\beta}_{14} X_{14} + \hat{\beta}_{15} X_{15}$$

Notes:

X_1 = Number of household member
X_2 = Household head gender (0 = male, 1 = female)
X_3 = Household head age (0 = productive, 1 = not productive age)
X_4 = Urban-rural classification (0 = urban, 1 = rural)
X_5 = Household head education (0 = > Junior high school/equivalent, 1 = ≤ Junior high school/equivalent)
X_6 = Health insurance beneficiary (0 = > 0,5, 1 = ≤ 0,5)
X_7 = Food insecurity (0 = no, 1 = yes)
X_8 = Housing ownership (0 = yes, 1 = no)
X_9 = Assets ownership (0 = yes, 1 = no)
X_{10} = Credit ownership (0 = yes, 1 = no)
X_{11} = Non-cash government assistance (0 = Receiving, 1 = Not receiving)
X_{12} = Family Hope Program (0 = Receiving, 1 = Not receiving)
X_{13} = The proportion of working household member (0 = > 0,5, 1 = ≤ 0,5)
X_{14} = Sanitation condition (0 = adequate, 1 = poor)
X_{15} = Electricity availability (0 = available, 1 = unavailable)

RESULTS AND DISCUSSION

Extreme Poverty of Agricultural Sector Households in Indonesia in 2022

Most poor households in Indonesia's agricultural sector are not extremely poor. Around 79.22 percent of households are not extremely poor. In contrast, the remaining 20.78 percent are in extreme poverty. This figure can be interpreted as follows: Out of 100 poor households in the agricultural sector, 20-21 households live in conditions of extreme poverty, and 79-80 live in conditions that are not extreme poverty. The distribution of agricultural sector households with extremely poor status by province is presented in the following map (Figure 2).

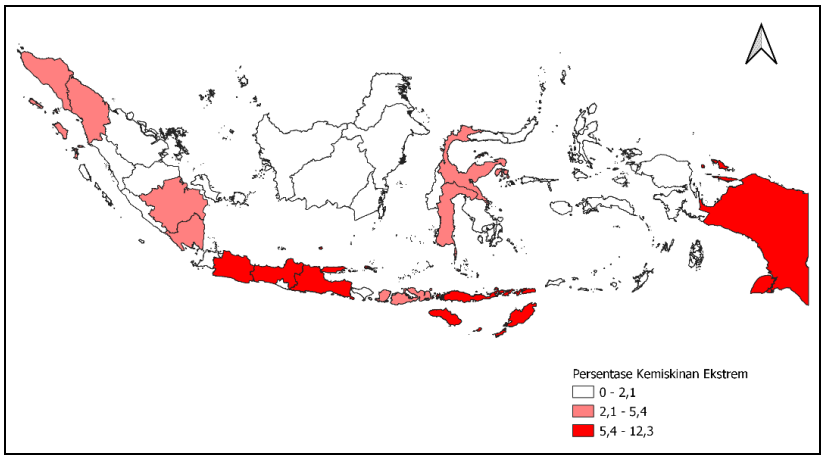

Figure 2. Percentage of Agricultural Sector Households with Extreme Poverty Status by Province in Indonesia in 2022. Source: Susenas March 2022

Figure 2 shows that agricultural sector households with extremely poor status are spread throughout Indonesia, both in the eastern and western parts of Indonesia. The map shows that the majority of provinces on the island of Java have a high percentage of extreme poverty, including the provinces of West Java, Central Java and East Java. Apart from the provinces on Java Island, there are also Papua Province and East Nusa Tenggara Province. The Government of Indonesia has included these provinces as priority areas for accelerating the eradication of extreme poverty in 2022.

Characteristics of Extreme Poor Households in the Agricultural Sector in Indonesia in 2022

The average number of household members between non-extreme poor and extremely poor households was not very different (Table 2). Non-extreme poor households have an average of 4-5 people. Meanwhile, households in extreme poverty have an average number of household members of 5-6 people.

Based on Table 2, in general, the characteristics of poor households in the agricultural sector with extremely poor status have an average number of household members of 5-6 people, the gender of the household head is male, the age of the household head is included in the productive age, lives in a rural area, household head's education level ≤ junior high school/equivalent, proportion of health insurance ownership > 0.5, experiencing food insecurity, and no house ownership.

Table 2. Percentage of Agricultural Sector Household Characteristics Based on Extreme Poverty Status

Variable	Category	Extremely Poor Status (%)	
		Not Extremely Poor	Extremely Poor
(1)	(2)	(4)	(5)
Household head gender	Male*	79,20%	**20,80%**
	Female	79,55%	20,45%
Household head age	Productive age*	79,16%	**20,84%**
	Not productive age	79,62%	20,38%
Urban-rural classification	Urban*	82,18%	17,82%
	Rural	78,24%	**21,76%**
Household head education	> Junior high school /equivalent*	81,93%	18,07%
	≤ Junior high school /equivalent	78,77%	**21,23%**
Health insurance ownership	> 0,5*	79,05%	**20,95%**
	≤ 0,5	79,47%	20,53%
Food insecurity	No*	81,37%	18,63%
	Yes	75,05%	**24,95%**
Housing ownership	Yes*	79,35%	20,65%
	No	77,74%	**22,26%**
Assets ownership	Yes*	79,91%	20,09%
	No	69,12%	**30,88%**
Credit ownership	Yes*	82,09%	17,91%
	No	78,58%	**21,42%**
Non-cash government assistance	Receiving*	79,69%	20,31%
	Not receiving	78,97%	**21,03%**
Family Hope Program	Receiving*	77,02%	**22,98%**
	Not receiving	80,16%	19,84%
The proportion of working household members	> 0,5*	83,38%	16,62%
	≤ 0,5	77,91%	**22,09%**
Sanitation condition	Adequate*	81,60%	18,40%
	Poor	76,72%	**23,28%**
Electricity availability	Available*	80,09%	19,91%
	Unavailable	70,95%	**29,05%**

Source: Susenas March 2022 (processed)

The household also does not have assets, does not have credit, does not receive non-cash government assistance, is a beneficiary of the Family Hope Program, has a proportion of household members working ≤ 0.5, has inadequate sanitation conditions, and does not have electricity. There are various types of health insurance in Indonesia, one of which is recipient of contribution assistance (BPJS PBI). It is health insurance that is specifically intended for the poor and underprivileged people. However, based on processing results, there is still 38.52 percent of extremely poor households whose entire household members do not have BPJS PBI health insurance.

Variables that Influence the Extreme Poverty Status of Poor Households in the Agricultural Sector in Indonesia in 2022

Table 3 shows that the statistical value of the G test was obtained at 620.98. From this value, it means that the test statistical value G > χ_((0.1;15))^2, then the decision obtained is to reject the null hypothesis. We concluded that with a significance level of 10 percent, there is sufficient evidence that at least one predictor variable influences the extreme poverty status of agricultural sector households in Indonesia.

Table 3. Simultaneous parameter testing results

	G	**df**	χ^2_{tabel}	***p-value***
(1)	**(2)**	**(3)**	**(4)**	**(5)**
Model	620,98	15	22,307	0,000

Source: Susenas March 2022, processed

Based on the processing results, as shown in Table 4, the binary logistic regression equation can be written as follows.

$$\hat{g}(x) = -3{,}086^{*} + 0{,}179X_1^{*} + 0{,}078X_2 + 0{,}113X_3 + 0{,}141X_4^{*} + 0{,}102X_5^{*} + 0{,}102X_6^{*} + 0{,}284X_7^{*} + 0{,}071X_8 + 0{,}123X_9^{*} + 0{,}355X_{10}^{*} + 0{,}055X_{11} - 0{,}204X_{12}^{*} + 0{,}188X_{13}^{*} + 0{,}093X_{14}^{*} + 0{,}234X_{15}^{*}$$

Variables that significantly influence the extreme poverty status of agricultural sector households in Indonesia are the age of household heads, classification of the area of residence, education level of household heads, ownership of health insurance, food insecurity, asset ownership, credit ownership, Family Hope Program, proportion of working household members, sanitation condition, and availability electricity. Meanwhile, variables that do not have a significant effect on the extreme poverty status of agricultural sector households are the household head's gender, house ownership, and BPNT.

The gender variable of the household head does not have a significant effect on the extremely poor status of agricultural sector households in Indonesia, indicating that there is no difference in the tendency between households with male household heads and female household heads to become extremely poor. These findings are in line with research by Arfiyanto (2015); Puspitasari and Triscowati (2022); Rashid et al. (2020).

Table 4. Value of Parameter Estimation Results and Odds Ratio

Variable	Coefficient	*Z-value*	*p-value*	*Odds ratio*
(1)	(2)	(3)	(4)	(5)
Constant	-3,086	-25,780	0,000*	
Number of Household Members	0,179	17,166	0,000*	1,196
Household head gender				
Male (ref)	0,078	1,130	0,259	1,081
Female				
Household head age				
Productive age (ref)	0,113	1,721	0,085*	1,119
Not productive age				
Urban-rural classification				
Urban (ref)				
Rural	0,141	2,310	0,021*	1,151
Household head education				
> Junior high school /equivalent (ref)	0,102	1,952	0,051*	1,108
≤ Junior high school /equivalent				
Health insurance beneficiary				
> 0,5 (ref)	0,102	2,481	0,013*	1,107
≤ 0,5				
Food insecurity				
not insecurity (ref)	0,284	7,367	0,000*	1,328
insecurity				
Housing ownership				
Yes (ref)				
No	0,071	1,038	0,299	1,073
Assets ownership				
Yes (ref)	0,123	1,933	0,053*	1,130
No				
Credit ownership				
Yes (ref)	0,355	5,707	0,000*	1,426
No				
Non-cash government aid				
Receiving (ref)	0,055	1,168	0,243	1,056
Not receiving				
Family Hope Program				
Receiving (ref)	-0,204	-4,410	0,000*	0,815
Not receiving				
The proportion of working household members				
> 0,5 (ref)	0,188	3,870	0,000*	1,207
≤ 0,5				
Sanitation condition				
Adequate (ref)	0,093	2,324	0,020*	1,098
Poor				
Electricity availability				
Yes (ref)	0,234	4,840	0,004*	1,263
No				

Source: Socio-Economic Survey, March 2022 (processed).
Note: *) Significant at 10% level

Table 5. Model suitability test results

	$\hat{C}$	**df**	χ^2_{tabel}	***p-value***
(1)	**(2)**	**(3)**	**(4)**	**(5)**
Model	7,990	8	13,362	0,435

Source: Susenas March 2022 (processed).

Based on Table 5, the statistical test $\hat{C}$ is 7,990. Test statistical value $\hat{C} < \chi^2_{0,1;(8)}$ so that the decision to fail to reject the null hypothesis is obtained. Thus, with a confidence level of 90 percent, sufficient evidence is obtained that the model formed is appropriate and appropriate in explaining the extreme poverty status of agricultural sector households in Indonesia in 2022.

The Likelihood of Significant Variables Affecting Extreme Poverty of Poor Households in the Agricultural Sector in Indonesia in 2022

The variable number of household members significantly influences the extreme poverty status of agricultural sector households. Each increase in the number of household members will increase the tendency of a household to be in extreme poverty by 1.196 times. In line with Borko's (2017) research; Haddad & Ahmed (2003); Haryanto et al. (2020); Rini and Sugiharti (2016); Rosmika (2021) states that the burden borne by families will become greater as the number of household members increases. Therefore, the per capita income or expenditure that can be shared among household members will become smaller as the number of household members in the household increases (Rini & Sugiharti, 2016).

The household head's age variable significantly influences the extreme poverty status of agricultural sector households. Households headed by KRTs of unproductive age are 1.119 times more likely to be in extreme poverty than households with KRTs of productive age. The results of this research are in line with research by Rahmawati (2006). The increasing age of the head of the household can reduce the chances of the household becoming chronically poor (Haddad & Ahmed, 2003). Because, as the age of the head of the household increases, their knowledge, experience and abilities in the agricultural sector increase (Mutia, 2020). Apart from that, at a productive age, the health condition of the head of the household is generally still good. Health conditions will decline with age so productivity will also decrease.

The classification variable for the area of residence categorized into urban and rural areas has a significant influence on the extreme poverty status of agricultural sector households. Households living in rural areas have a 1.151 times greater tendency to be in extreme poverty than households living in urban areas. This is explained by Todaro & Smith (2003) who generally poor people live in rural areas who depend on the agricultural sector and activities related to the traditional sector for their livelihoods. The lives of the majority of poor people in developing countries depend on subsistence farming patterns. Garza-Rodríguez (2004) stated that in general the productivity of people in rural areas is lower than that of people in urban areas so the income of people in rural areas is also lower.

Another variable that has a significant influence on the extreme poverty status of agricultural sector households is the household head's education level. Households headed by KRTs with a maximum education level of junior high school/equivalent have a 1.108 times greater tendency to be in extreme poverty

than households headed by KRTs with a minimum education level of high school/equivalent. Higher education can increase human capital and its impact will increase labor productivity and wages (Nainggolan & Saragih, 2022). Therefore, households with highly educated household heads tend to escape poverty more easily than household heads with low levels of education. In addition, a higher level of education can increase a person's chances of getting a more decent job (Satrio, 2018). Education is a part of the human resource investment that will elevate poverty in the agricultural sector (Moeis et al., 2022).

The health insurance ownership variable has a significant influence on the extreme poverty status of agricultural sector households. In addition, the food insecurity variable has a significant influence on the extreme poverty status of agricultural sector households. The proportion of household members who have a maximum health insurance of 0.5 have a higher tendency to become extremely poor. This condition is in line with research by Haryanto et al. (2020); Rashid et al. (2020). Having health insurance can help households in spending on medical expenses. This is because poor households, especially extremely poor, cannot pay for treatment at health facilities if a household member is sick. The same thing also happens to households that experience food insecurity. This means that households that can meet their food needs can reduce the tendency of these households to become extremely poor. This finding is in line with research by Rasyid et al. (2020) that the higher the quality and quantity of food that a household can provide, the higher the level of household welfare.

The asset ownership variable in the household has a significant influence on the extremely poor status of agricultural sector households, namely they tend to be 1.130 times more likely to have extremely poor status than households that own assets. This finding is in line with research by Bokosi (2007); Direja (2021); Maharsi & Hadi (2022); Rozanti et al. (2021); Teguh & Nurkholis (2011) state that households that have assets can reduce the probability of becoming poor. Households that do not own physical assets, such as land or houses, tend to become chronically poor because they do not have productive assets that can increase income. The assets owned by a household can protect against decline and destitution (Shepherd, 2007).

Another variable that has a significant influence on the extreme poverty status of agricultural sector households is credit ownership. Households that do not have credit are 1.426 times more likely to be in extreme poverty. These findings are in line with research by Khalid et al. (2005); Nainggolan & Saragih (2022); Rini & Sugiharti (2016); Suwartana & Siagian (2022) that easy access to credit can increase income. Credit owned by households can be used to open businesses, such as sewing, opening a shop, and so on. By increasing income, the welfare of family members can improve. Apart from that, having access to credit can increase capital in running a business in the agricultural sector.

The Family Hope Program variable also has a significant influence on the extreme poverty status of agricultural sector households. Households that do not receive the Fammily Hope Program are 0.832 times less likely to become extremely poor than households that receive the Fammily Hope Program. This condition means that the distribution of Family Hope Program recipients has focused on extremely poor households compared to ordinary poor households.

The existence of the Family Hope Program can reduce the number of poor people (Samputra & Ramadhani, 2019).

The proportion of working household members also significantly influences the extreme poverty status of agricultural sector households. Households with a maximum proportion of working household members of 50 percent have a 1.207 times a greater tendency to be in extreme poverty. This research's findings align with Arfiyanto, (2015); Widyanti et al. (2010). For households with a higher proportion of household members who work, the chance of a household becoming chronically poor will decrease. The more household members who work or are part of the workforce, the household's total income will increase. Therefore, the household's chance of becoming chronically poor will decrease (Rahmawati, 2006).

The sanitation condition variable significantly influences the extreme poverty of agricultural sector households, namely that households with inadequate sanitation conditions have a 1.098 times greater tendency to have extreme poverty status. These findings are in line with research by Raharyanti (2013); Rozanti et al. (2021); Yakubu (2021) stated that households that have inadequate access to sanitation can increase expenditure in the household. These expenses are in the form of health expenses. This is because inadequate sanitation can cause various diseases related to environmental conditions.

The variable electricity availability significantly influences the extremely poor status of agricultural sector households. Households that do not have electricity are 1.263 times more likely to be in extreme poverty. This finding is in line with research by Teguh & Nurkholis (2011); Yakubu (2021); Zuhri (2019). Owning electricity can increase a household's income by creating a small-scale business. Access to electricity can facilitate micro and small businesses, such as welding, salons for women, barbers, and so on. In addition, the costs incurred to pay for electricity are cheaper than candles or oil lamps. Therefore, households can allocate the remaining expenditure on energy consumption to other expenditures, such as education. Zuhri (2019) stated that the opportunity for a household to fall into poverty is higher if the household does not have access to electricity.

CONCLUSION

There is 20.78 percent of agricultural sector households with extremely poor status in Indonesia. The majority of these households live in the provinces of West Java, Central Java, East Java, Papua and East Nusa Tenggara. Variables that influence the extreme poverty of poor households in the agricultural sector in Indonesia in 2022 are the number of household members, household head age, urban-rural classification, household head education, health insurance beneficiary, food insecurity, asset ownership, credit ownership, Family Hope Program, proportion of household members working, sanitation condition, and electricity availability.

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