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Rural Youth Participation Opportunities in the Agricultural Sector in South Kalimantan Province

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Abstract:
Agriculture has a significant role in South Kalimantan, the second-largest share in the economy and is the sector with the most considerable employment absorption. Based on BPS data, employment in the agricultural sector tends to decline from year to year. One of the reasons is the decline in youth participation in this sector. More than 80% of farmers live in rural areas, and in the last year, there has been a shift in dominance by the non-agricultural sector in rural areas. Another phenomenon is the ageing farmers in South Kalimantan, which is indicated by the enormous number of older farmers, even though South Kalimantan has a young population structure. Another issue is about 20% more youth are classified as NEET (Not Employment, Education and Training), which illustrates the potential loss in the job market. The study was conducted to examine the characteristics of youth working in the agricultural sector towards youth working in the non-agricultural sector and youth belonging to the NEET group and the factors that affect the opportunities for youth participation in the farming sector in South Kalimantan. The research was conducted from October 2020 to November 2021 using secondary data from the February 2020 Sakernas and Podes 2020 from BPS. Inferential analysis of data using multinomial logistic regression. The purpose of the research is to determine the opportunities for participation of rural youth to work in the agricultural sector in terms of internal factors (gender, education level, marital status, participation in training, migration status and work background of the head of the household) as well as external or environmental factors (availability and access), educational facilities, markets, financial institutions, reservoirs, internet signal conditions, and road conditions). Based on the analysis results, there are 7 (seven) of the 12 (twelve) research variables that statistically affect the opportunities for participation of rural youth in the agricultural sector.
Conclusion: *Opportunities to participate in the agricultural sector compared to working in the non-agricultural and NEET sectors tend to be greater for rural male youth, the lower the education level, the status of having been married, never participated in certified training or the work background of the head of the household is the agriculture sector and viewed from external or environmental factors, the chances of their participation in the agricultural sector tend to be greater if they live in an environment with no facilities and demanding access to market facilities, weaker internet signal conditions, and better road conditions.*
Key Words: *rural youth participation, agriculture, NEET, multinomial logistic regression*

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I. Introduction

Indonesia's agriculture has a significant role in world agriculture, as shown by the growth of Indonesia's agricultural gross domestic product (GDP), which ranks fourth highest in the world after China, India and the United States (FAO: 2019). South Kalimantan, one of the provinces implementing the national strategic program "Selamatkan Sejahtera Petani Rawa" (SERASI) 2020, depends on the agricultural sector. The role of the agricultural sector ranks second after the mining and quarrying sector (18.71%), with the share of agriculture to the regional economy reaching 14.36% (in 2019). The development of the agricultural sector is the focus of regional economic development to reduce economic dependence on the non-renewable mining sector.

Sustainable agriculture (sustainable agriculture) depends on human resources (HR), one of the leading production factors in the development process. One of the HR problems in agricultural development that is of concern is the phenomenon of ageing farmers in various countries in the world, such as the United States (US). The country with the third-highest agricultural GDP in the world experienced a shift in the average age of farmers; in 2017, the average age of farmers in the US was 57.5 years, an increase compared to 2012, which was an average of 56.3 years. And the average farmer in the country has worked in agriculture for 21.3 years (USDA, 2017:2). Japan is also experiencing a decline in farmer entrepreneurs and the phenomenon of ageing farmers (Yaganimura and Uchiyama (2014) in Susilowati (2016:42)). In 2015, the average age of agricultural

workers increased by 7.2 years to 67 years over the past decade. It mainly occurs in highland and mountainous areas, where more than 70% of farmers are aged 65 years and over: Japan's ageing population and low birth rate caused ageing farmers to occur in this country. The phenomenon of ageing farmers also occurs in South Kalimantan. As many as 292.7 thousand people (54.69%) are farmers aged 45 years and over, while young farmers (under 35 years old) are only 91.8 thousand people (17.16%) (BPS, 2019:57). Ageing Farmers describes youth participation in the agricultural sector as still low.

Agriculture can dominate the absorption of labour in South Kalimantan. Still, during this decade, the workforce in agriculture has tended to decline, as shown in 2010 around 41.76% (BPS, 2010:4), and in 2020 employment in the agricultural sector fell to one-third of the worker population (BPS, 2020:4). One of the causes of the decline in jobs in the farming sector is the decline in youth participation working in this sector. Based on BPS data, in 2014, about 24.41% of the population working in agriculture are youth, which has decreased to 18.54% (2019).

Agricultural workers generally live in rural areas. Around 91.32% of agricultural workers live in rural areas (2015). However, in rural areas, in 2019, there was a shift in the dominance of the role of the agricultural sector to the non-agricultural sector (BPS, 2020:5).

The declining participation of youth in the agricultural sector is not in line with the increasing number of youth. South Kalimantan, which has a young population structure, is around 1.03 million youth (in 2019) and is projected to increase to 1.21 million people in 2034 (Bappenas, 2019:322).

Based on their activities, youth who are in school is 23.87%, and those active in the labour market are 56.13%. An important issue that must be considered is that about 20% of youth are not active in education or the job market. South Kalimantan has lost potential human resources in economic development.

The underutilization of youth in the labour market (loss potential) is reflected in the NEET indicator, youth aged 15-24 years (young people) who are not working, are not currently in education, and are not currently attending training. In 2019 South Kalimantan's NEET rate was 21.99%, not the highest but above the National figure (21.72%). The condition of the youth of South Kalimantan needs more attention, especially since the role of youth in the job market is one of the goals in the Sustainable Development Goals (SDGs, Goal 8.8).

Taking into account the role of agriculture, the dominance of rural areas for the agricultural sector, and the phenomenon of decreasing youth participation in agriculture as well as the high level of NEET which illustrates the potential human resources that have lost their participation in the South Kalimantan economy, a study was conducted by examining the performance characteristics of rural youth who work in the agricultural sector towards youth rural areas working in the non-agricultural sector and/or NEET youth, as well as internal and environmental factors that affect youth participation opportunities in the agricultural sector in South Kalimantan.

II. Methods

1. Types and Source of Data

This study uses secondary data sourced from the February 2020 National Labor Force Survey (Sakernas) and 2020 village potential data (Podes) by the BPS South Kalimantan Province.

The object of this study focuses on 648 samples of rural youth from 1,074 youth based on the results of the National Labor Force Survey (Sakernas), namely those aged 16-30 years who live in rural areas and are not currently attending formal education and are not attending training.

Sakernas data used are gender, marital status, migration status, participation in training, and agricultural household status. Podes data in this study is used as regional data and is complementary to research, namely data on the existence of school facilities, internet signal conditions, village markets, road accessibility, financial institutions and reservoirs in the research object environment.

2. Data Analysis Method

The analytical methods used are:

(1) Descriptive analysis to see the performance of rural youth and their environment by cross tabulating the dependent variable, namely rural youth and 12 (twelve) independent variables from the object of this research.

(2) Inferential analysis is used to analyze the opportunities for rural youth to work in the agricultural sector based on the factors that influence it. The analysis used is the Multinomial Logistics Regression statistic. Because the dependent variable is a nominal scale variable with 3 (three) categories, and the independent variable is categorical (nominal time). This study uses the backward stepwise elimination method, meaning that one by one, the variables that have a high level of significance are removed from the model so that a model with a significance value of the likelihood ratio test is obtained for all variables below the value of =

5%. The test stages carried out were the overall test, the simultaneous test, the goodness of the model test, the partial test and the formation of the estimation parameters and the multinomial logistic regression model.

The multinomial logistic regression model of this study is:

$\ln(P\_1/P\_0) = z\_1 = \beta_{10} + \hat{\beta}_{11}$ JK+ $\hat{\beta}_{12}$ Didik+$\hat{\beta}_{13}$ StKawin+ $\hat{\beta}_{14}$ Pelatihan+ $\hat{\beta}_{15}$ StMigran+$\hat{\beta}_{16}$ KRTKerja+ $\hat{\beta}_{17}$ AksesSMA+ $\hat{\beta}_{18}$ SignalInet+ $\hat{\beta}_{19}$ AksesPasar+$\hat{\beta}_{110}$ AksesJalan+ $\hat{\beta}_{111}$ AksesBank+ $\hat{\beta}_{112}$ Embung

and

$\ln(P\_2/P\_0) = z\_2 = \hat{\beta}_{20} + \hat{\beta}_{21}$ JK+ $\hat{\beta}_{22}$ Didik+$\hat{\beta}_{23}$ StKawin+$\hat{\beta}_{24}$ Pelatihan+ $\hat{\beta}_{25}$ StMigran+$\hat{\beta}_{26}$ KRTKerja+ $\hat{\beta}_{27}$ AksesSMA+ $\hat{\beta}_{28}$ SignalInet+ $\hat{\beta}_{29}$ AksesPasar+$\hat{\beta}_{210}$ AksesJalan+ $\hat{\beta}_{211}$ AksesBank+ $\hat{\beta}_{212}$ Embung

Note :

The dependent variable is grouped into 3 (three) categories and has the following probability:

P_0= Rural youth workers in the agricultural sector

P_1= Rural youth workers in the non agricultural sector

P_2= NEET category rural youth

Table 1: Demographic Characteristics of Respondents

		Frequency	**Percentage**
Gender (JK)	0=Male	323	49,8%
	1=Female (reference)	325	50,2%
Education level completed (Didik)	0= Elementary school (SD) and below	181	27,9%
	1=Junior High School (SMP)	159	24,5%
	2=High school (SMA)	233	36,0%
	3=Diploma/Bachelor (reference)	75	11,6%
Marital status (StKawin)	0=Never/Unmarried	256	39,5%
	1 = ever married (reference)	392	60,5%
Participation in training and obtaining certificates (Pelatihan)	0=ever	109	16,8%
	1 = Never (reference)	539	83,2%
Recent migration status where the place of residence five years ago is different from the place of residence now (StMigran)	0=migrant	47	7,3%
	1 = non-migrant (reference)	601	92,7%
Occupation of the head of the household (KRTKerja);	0=HH of Agricultural Workers	356	54,9%
	1= HH of Non-Agricultural Workers	259	40,0%
	2=Not Working (reference)	33	5,1%
Presence and access to high schools in the neighbourhood (AksesSMA)	0=There are Facilities	160	24,7%
	1=None, easy access	452	69,8%
	2=None, difficult access (reference)	36	5,6%
condition of internet signal in the environment (signalInet)	0=4G	505	77,9%
	1=3G	124	19,1%
	2=GPRS Below (reference)	19	2,9%
The existence and access of Markets in their environment (aksesPasar)	0=There are Facilities	306	47,2%
	1=None, easy access	320	49,4%
	2=None, difficult access (reference)	22	3,4%
The condition of the road infrastructure in its environment (aksesJalan)	0= Road (Asphalt Surface / Paved and Passable all year round);	556	85,8%
	1=other road conditions	92	14,2%
The existence and access of the Bank (AksesBank)	0=There are Facilities	44	6,8%
	1=None, easy access	542	83,6%
	2=None, difficult access (reference)	62	9,6%
The presence of reservoirs (embung)	0= Yes	94	14,5%
	1= None (reference)	554	85,5%
Total Participants		648	100%

The analysis was carried out by combining Sakernas and PODES data from BPS South Kalimantan Province in 2020. The data obtained were analysed using the Statistical Package Social Science (SPSS) version 21.0 for Windows program package.

III. Results and Discussion

Performance of Rural Youth and Their Environment

Rural youth in South Kalimantan who participate in the agricultural sector is still low, as can be seen from the percentage of rural youth working in the farming sector, which is the same as rural youth in the NEET category (26.70%), while 46.60% work in the non-agricultural sector. The agricultural sector supports the rural economy in South Kalimantan, but there is a crisis of labour participation.

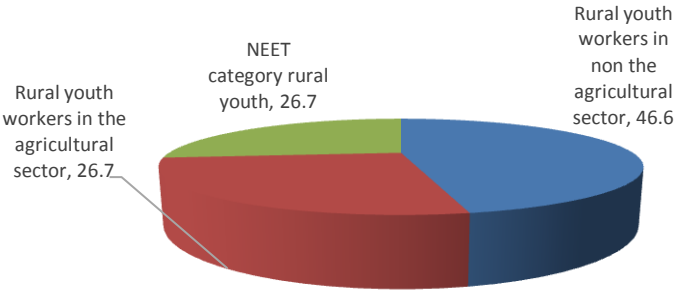

Figure 1. Rural Youth Category

Gender. There is a gender gap in youth participation in the agricultural sector. More male rural youth work in the agricultural sector than women. Around 36.22% of men work in the agricultural sector while only 17.23% of women work. The result is in line with research conducted by Hendri (2013: 54) that most women have a negative assessment of agricultural sector work, namely work that is difficult to do, requires a lot of energy, takes time, and has unclear income so that the participation of rural women in the agricultural sector is low.

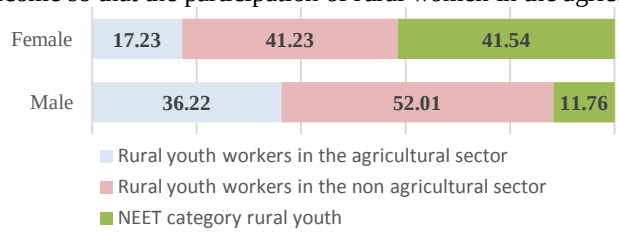

Figure 2. Rural youth based on gender

Educational attainment. The proportion of rural youth working in the agricultural sector has decreased and increased educational attainment. Rural youth who work in agriculture with a maximum education level of elementary school (38.12%) experienced a slight decline for junior high school graduates (32.70%). Participation experienced a significant decrease for those who graduated from high school (19.74%), and those who completed their diploma/bachelor degree education were only around 8.00%. In line with the research of Nugroho et al. (2018:84), the higher the level of education, the youth tend to choose/want to work outside the agricultural sector (industry and services).

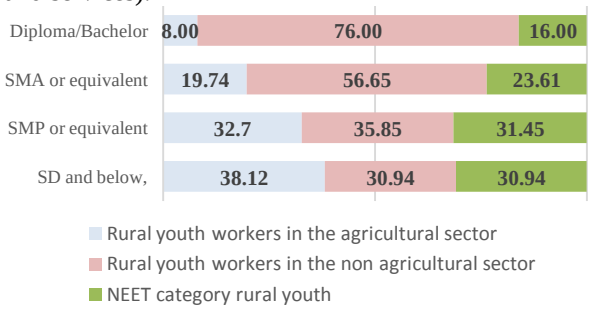

Figure 3. Rural youth based on educational attainment

Marital Status. Unmarried rural youth tend to work in the non-agricultural sector (55.86%), while only 25.00% work in the agricultural sector. Rural youth who have ever been married have a greater proportion of working in the farming sector than those not married, which is 27.81%. The absence of family dependents has resulted in unmarried rural youths tending to work only to earn income to the extent of their needs, so they tend to choose jobs without any family economic burden.

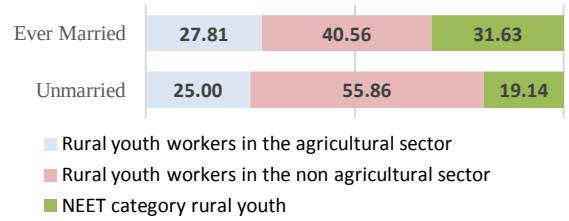

Figure 4. Rural youth based on marital status

Participation in a training. Participation in training illustrates the involvement of rural youth in participating in structured and formal training/courses to improve skills. Rural youth who have never attended the training have a higher percentage of working in the agricultural sector (28.76%) than those who have participated in the activity. This illustrates that rural youth's agriculture in South Kalimantan is mainly carried out with local knowledge or decreasing. Whereas youth are more interested in new knowledge, access to more up-to-date technology, and understanding and applying advanced techniques to agricultural management. If this is not available with a more structured system, youth with the knowledge they possess are likely to seek career paths other than agriculture (USDA, 2019:1).

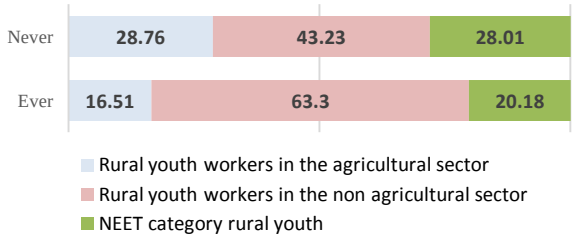

Figure 5. Rural youth participation in a training

Migration Status. The proportion of non-migrant rural youth who work in the agricultural sector is higher than that of rural youth with migrant status. As many as 27.45% of rural youth with non-migrant status work in the agricultural sector, while only 17.02% of rural youth who are migrants work in the agricultural sector. Pranadji (1992:48) reveals that the factor of land is narrowing. The increase in population impacts agriculture because it is a driving factor for rural people (agriculture) to migrate.

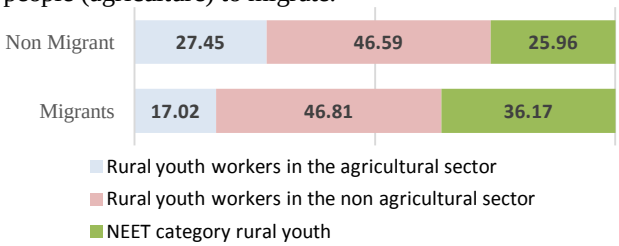

Figure 6. Rural youth migration status

Work of the head of household. Nugroho et al. (2018: 84) said that parental inheritance is one of the binding factors for young people to work in the agricultural sector. The proportion of rural youth working in the agricultural sector is the largest proportion when the Head of the Household (KRT) also works in the agricultural sector. As many as 46.07% of rural youth with household heads have a background in agriculture. They will choose to work in the agricultural sector as well.

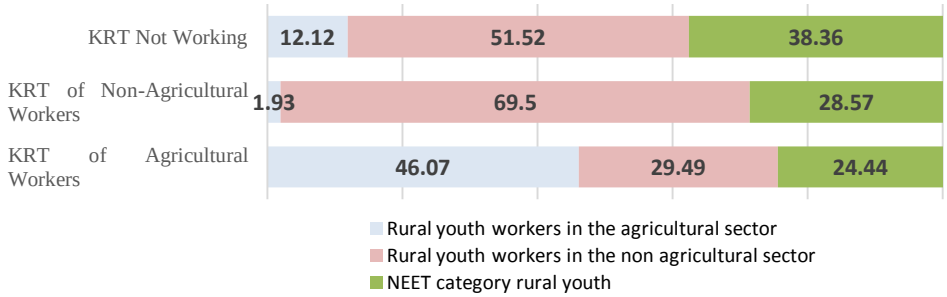

Figure 7. Rural youth based on type of work of the household head

Presence of high school. Education is one of the facilitating factors to support the acceleration of agricultural development (Fatah, 2006: 94). The acceleration step is to improve the quality of farming and human resources through high schools' availability, especially those that support agriculture.

The proportion of rural youth who work in the agricultural sector is higher in an environment where it is difficult to access the nearest high school (55.56%). In comparison, those who live in areas where the high school is available are only 23.13%, and those who still have easy access to the nearest high school are 25.66%. This is in line with the explanation of the level of education, where the highest proportion of rural youth working in the agricultural sector has a low level of education. One of the causes of the low quality of education for rural youth who work in the farming sector is the unavailability of facilities.

This also has an impact on the high proportion of rural youth in the NEET category. As many as 28.54% of rural youth live in areas with no high school with easy access, and around 25.0% of rural youth live in areas with difficulty accessing high school, which are included in the NEET category. This illustrates the low quality of rural youth, with the unavailability of high school making it difficult for rural youth to improve the quality of their education.

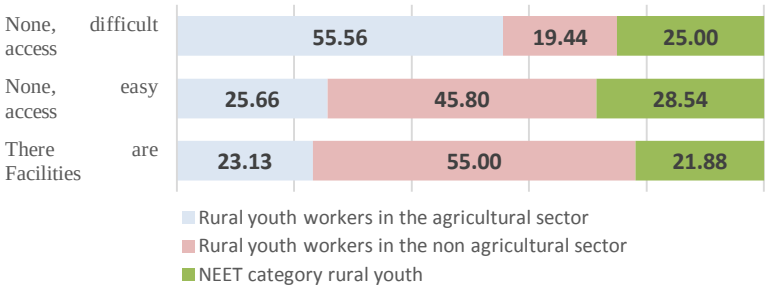

Figure 8. Rural youth based on presence of high school

Internet Signal Condition. There is a difference in the pattern between the percentage of rural youth who work in the non-agricultural sector and those who work in the agricultural sector based on internet signal conditions. The higher and better the state of the internet signal in the neighbourhood where they live, the higher the percentage of youth working in the non-agricultural sector increases. Rural youth who work in the agricultural sector has the largest percentage in areas that do not have an internet signal or a weak signal. Around 52.63% of rural youth who live in areas with weak internet signal conditions/no signal choose to work in the agricultural sector. Sutisna (2018:46) said that farmers are one of the parties with inadequate access to information sources, so they only rely on extension workers to assist them in developing their capabilities and learning about agricultural innovations.

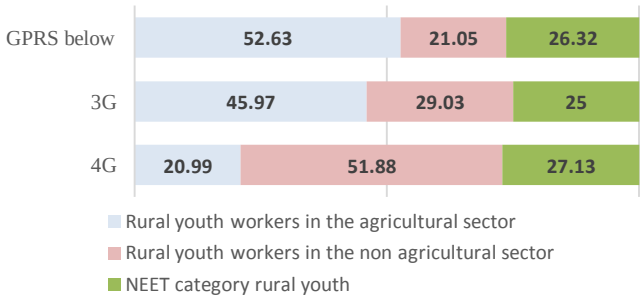

Figure 9. Rural youth based on internet status

Market Availability and Access. Mosher in Fatah (2006:88) states that the market is the main factor that must exist so that agricultural development can occur. Rural youth who live in a market-available environment predominantly work in the non-agricultural sector (53.27%), while only 23.20% work in the agricultural sector. The dominant rural youth who work in the farming sector live in difficult areas, namely 63.64%. The increase of difficulty in accessing markets increases the percentage of rural youth working in the agricultural sector.

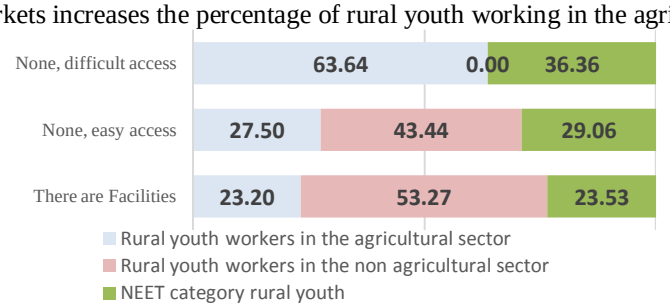

Figure 10. Rural youth based on market availability and access

Road Accessibility. Roads and bridges are infrastructures needed in agricultural development. It connects one region to another, distributing information, production facilities, production results, and transportation and communication. 26.62% of rural youth with good road access work in the agricultural sector, while those who live with other road access are 27.17%. In line with the research results of Tarigan and Syumanjaya (2013: 82), their case study stated that the quality of road infrastructure has a negative effect on the price of agricultural products. If the quality of infrastructure is getting worse, the cost of farm products obtained by farmers will be higher. This is a motivating factor for young people to work in agriculture because if the income in the agricultural sector is high and profitable, it will foster the interest of young farmers to be involved in the agricultural sector.

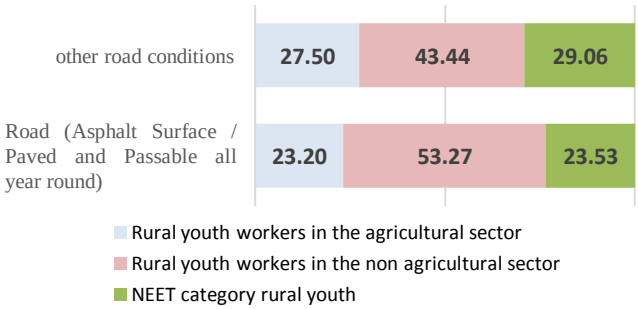

Figure 11. Rural youth based on road accessibility

Bank Availability. The provision of credit programs with bank intermediaries aims to increase farmers' capital to expand their business. Rural youth who have a bank in their area of residence mostly work in the non-agricultural sector (52.27%). Rural youth who work in agriculture have a minor proportion (11.36%). This illustrates the small role of banks in attracting the participation of rural youth in the agricultural sector. The reason may be as in Ashari's research (2009:35) which states that bank credit in agriculture is still below 6%. This percentage is still below credit for trade and industry.

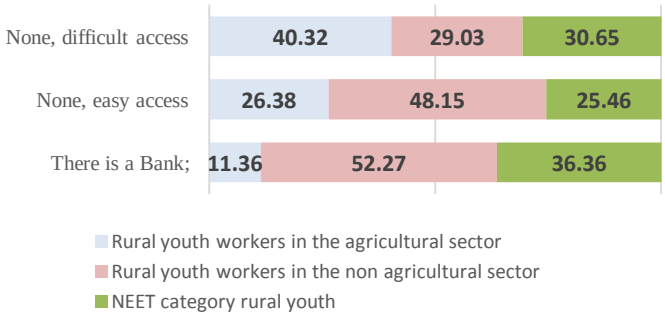

Figure 12. Rural youth based on bank availability

Reservoir availability. Rural youth who work in the agricultural sector has a higher proportion if there is a reservoir where they live. 32.98% of rural youth who have reservoirs in their villages work in the agricultural sector. Although not significantly different, the percentage of youth who work in the non-agricultural sector and

the NEET category in areas where there are reservoirs have their respective proportions of 31.91% and 32.98%. The percentage of rural youth working in the agricultural sector for reservoirs is in line with the vital role of reservoirs in the agricultural sector, namely as water providers. This makes the reservoir one of the driving factors for agricultural development.

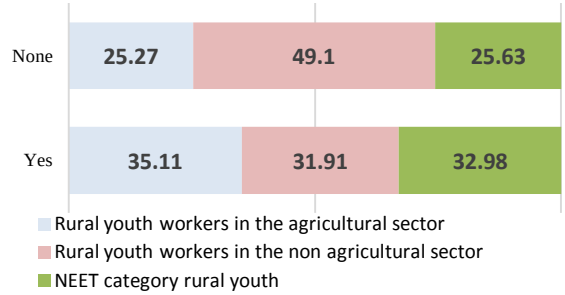

Figure 13. Rural youth based on the reservoir availability

The statistical tests

Overall test: To see the feasibility of the model whether we can use all explanatory variables to form the model. The overall test statistics use the value of the Pearson variable significance. Hypothesis:
H0 : Model fits with observation data
H1 : Model doesnot fit with observation data
The results of the p-value test (0.567) > (0.05), H0 cannot be rejected, meaning that this model is a fit model or feasible to use.

Table 2. Goodness-of-Fit

Statistic	Chi-Square	Df	Sig.
Pearson	740,81	748	0,57
Deviance	649,92	748	0,99

Simultant test: to see if we can use all the independent variables together to form the model. Hypothesis:
H0: No independent variable affects the dependent variable; β1= β2=… β12=0
H1: There is at least one independent variable that affects the dependent variable
Chi square statistics ($\chi 2$) 396,92 and p-value 0,00 (<α (5%)) it can be decided that H0 is rejected, with a confidence level of 95%, at least there is one independent variable that statistically significantly affects the dependent variable.

Table 3. Model Fitting Information

Model	*Model Fitting Criteria*	*Likelihood Ratio Tests*		
	-2 Log Likelihood	*Chi-Square*	*df*	*Sig.*
Intercept Only	1170,28			
Final	773,37	396,92	24	0,00

Partial test to see each parameter has a significant effect on the dependent variable. Hypothesis:
H0 : bj = 0, it means that the j-th independent variable and the dependent variable are not significantly different;
H1 : bj ≠ 0, it means that the j-th independent variable with the dependent variable is significantly different.
This study uses the backward stepwise elimination method, meaning that variables with a high level of significance (>α (0.05)) will be excluded from the model. The conclusion is that as many as 7 (seven) variables, namely JK, DIDIK, STKawin, KRTKerja, SignalInet, AksesPasar, and AksesJalan can reject H0 partially able to influence the participation of rural youth in agriculture.

Table 4. Likelihood Ratio Tests

Effect	*Model Fitting Criteria*	*Likelihood Ratio Tests*			
	-2 Log Likelihood of Reduced Model	*Chi-Square*	*df*	*Sig.*	
Intercept	773.367	.000	0	.	
JK	863.848	90.482	2	.000	Reject H_0
Didik	819.810	46.443	6	.000	Reject H_0
StKawin	786.832	13.465	2	.001	Reject H_0
KRTKerja	947.810	174.443	4	.000	Reject H_0
SignalInet	789.814	16.447	4	.002	Reject H_0
AksesPasar	788.353	14.986	4	.005	Reject H_0
AksesJalan	783.411	10.044	2	.007	Reject H_0

The goodness of fit test considers the magnitude of the coefficient of determination to see the diversity of the independent variable data able to describe the variety of the dependent variable data. The value of R2 (Nagelkerke) of 0.52 (52.0%) means that the seven independent variables (JK, DIDIK, STKawin, KRTKerja, SignalInet, AksesPasar, and AksesJalan) can explain the model of rural youth participation by 52.0%. In contrast, the rest are explained by another variable.

Table 5. Pseudo R-Square

Statistic	R^2
Cox and Snell	0,45
Nagelkerke	0,52
McFadden	0,29

Statistical Parameters and Multinomial Logistics Regression Model

The analysis was conducted to see the opportunities for rural youth to work in the non-agricultural sector and the NEET category of rural youth to rural youth working in the agricultural sector and the statistically influencing factors if the coefficient significance < α =5% so that this variable can be included in the logistic model. This analysis produces 2 (two) equation models.

1. Odds ratio for rural youth to work in the non-agricultural sector for rural youth to work in the agricultural:

$$Ln\left(\frac{P_1}{P_0}\right) = -14{,}15 - 0{,}93\,JK - 2{,}69\,Didik0 - 2{,}08\,Didik1 - 1{,}44\,Didik2 + 0{,}99STKawin - 1{,}90\,KRTKerja0 + 2{,}33\,KRTKerja1 + 17{,}84\,AksesPasar0 + 17{,}46\,AksesPasar1 - 1{,}36\,AksesJalan$$

2. Odds ratio for Rural Youth to Work in the NEET Sector to Rural Youth Working in the Agricultural :

$$Ln\left(\frac{P_2}{P_0}\right) = 2{,}81 - 2{,}51\,JK - 2{,}31\,KRTKerja0 + 1{,}32KRTKerja1 + 1{,}71SignalInet0 + 0{,}87SignalInet1 - 1{,}23\,AksesJalan$$

The following is the interpretation of rural youth participation opportunities based on the factors that influence it, the results of multinomial logistic regression analysis:

Gender. Rural youth men have 2.53 times the opportunity compared to women to work in the agricultural sector to rural youth working non-agricultural. In comparison, men tend to work in the sector by 12.35 times compared to women to become youths working in the agricultural sector to NEET rural youth. This illustrates that rural male youth have a greater tendency to work in the farming sector.

Figure 14. Odds ratio to work in the agricultural sector by gender

Educational attainment. Rural youth who graduated from elementary school and below had 14.71 times the chance to become workers in the agricultural sector compared to rural youth who graduated from college. Rural youths who graduate from junior high school are 8.0 times more likely to work in agriculture than those who graduate from diploma/bachelor degrees. The odds ratio for rural youth to graduate from high school or equivalent has a 4.24 times chance of becoming a worker in the agricultural sector.The lower the education level of rural youth, the higher the probability of working in the agricultural sector.

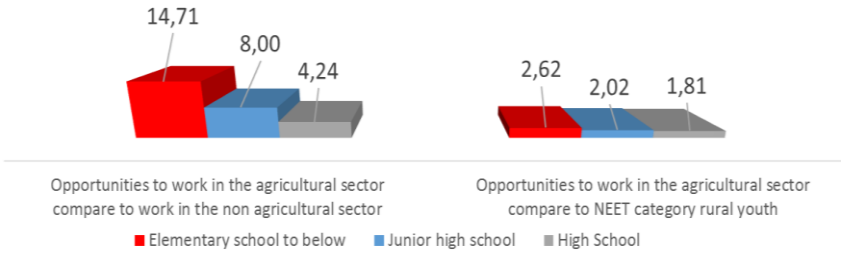

Figure 15. Odds ratio to work in the agricultural sector by education level

Marital status. Rural youth who have never been married have a 0.37 times chance of working in agriculture sector to youth who have never been married. The opportunity to work in the agricultural sector for NEET rural youth is 0.56 times compared to those who have been married. Rural youth who have ever been married have a greater chance of participating in the agricultural sector as workers than rural youth who have not been married.

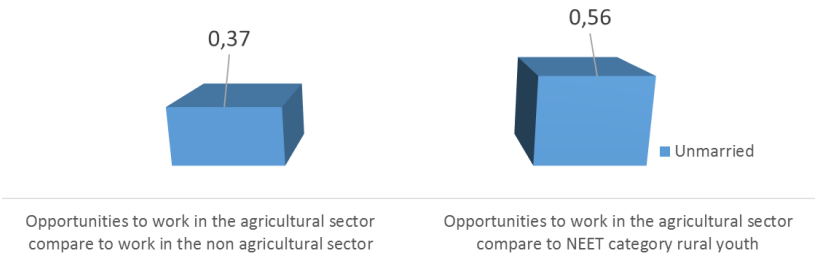

Figure 16. Odds ratio to work in the agricultural sector by marital status

Head of household's job status. Rural youth whose head of household works in agriculture have a higher chance of working in the agricultural sector, 6.67 times than those whose head of household does not work. In contrast, for NEET rural youth, the tendency of rural youth whose head of household works in the agricultural sector is agriculture 10.10 times work in the agricultural sector compared to those whose head of household does not work. Suppose the head of the rural youth is a worker in the non-agricultural sector. In that case, the tendency of rural youth is minimal to participate in the agricultural sector.

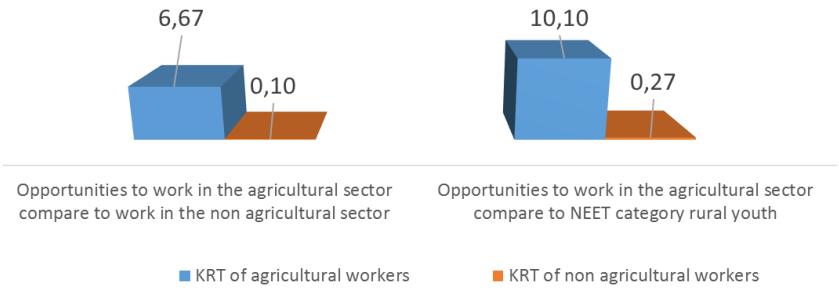

Figure 17. Odds ratio to work in the agricultural sector based on household work

Internet signal condition. Internet signal statistically only affects the NEET category model for those who work in agriculture. The odds ratio of rural youth working in agriculture against NEET is 0.18 times compared to an environment with a GPRS internet signal below. The picture is that the decreasing internet signal in their environment means that the odds ratio for rural youth to work in agriculture will increase, both for working in the non-agricultural sector and for youth in the NEET category.

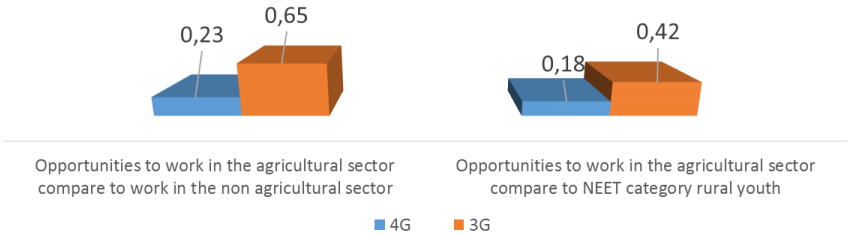

Figure 18. Odds ratio to work in the agricultural sector based on Signal Internet

Availability and market access in their residential area. Rural youth who have a market in their environment have a higher chance of working in the non-agricultural sector or becoming a NEET youth category than working in the agricultural sector.Rural youth living in areas with no market, but have easy access to the nearest market, are 0.94 times more likely to work in the agricultural sector than those who live in neighbourhoods with difficult market access.

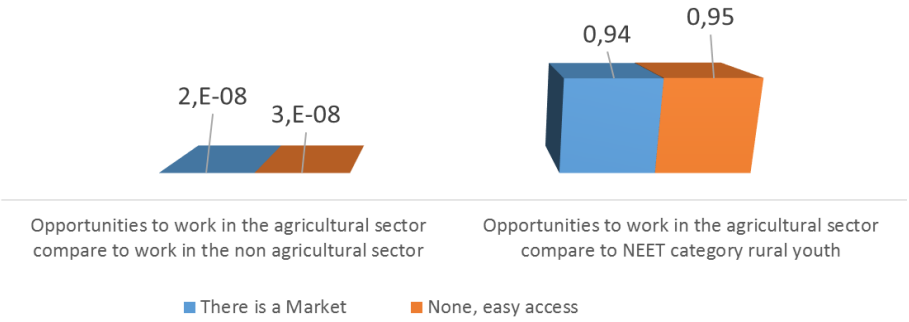

Figure 19. Odds Ratio to work in agricultural sector based on market presence

Road Accessibility. Rural youth who live in neighbourhoods with good road accessibility, namely road access (asphalt, paved), can pass that throughout the year have a 3.91 times chance of being compared to those who live with other road conditions. Also, rural youth who live in areas with good road accessibility tend to work in the agricultural sector by 3.41 times compared to those who live with different road accessibility.

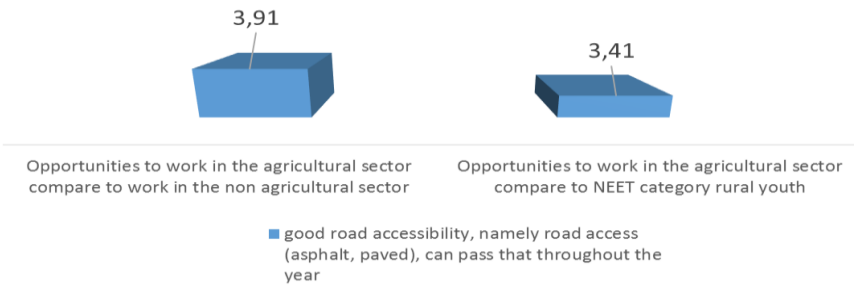

Figure 20. Odds ratio to work in agriculture sector based on road accessibility

IV. Conclusion

Based on the results of the descriptive analysis, it is obtained that the performance or characteristics of rural youth, especially those who work in the agricultural sector and their environment in South Kalimantan: (1) The dominance of rural youth as workers in the non-agricultural sector is 46.6%, and rural youth working in the agricultural sector and rural youth outside the world of education and the world of work, namely NEET, has the same percentage, which is 26.7%. (2) The proportion of rural youth who work in the agricultural sector is greater for rural male youth than women; less educated; ever married; never participated in certified training; non-migrant rural youth; rural youth with the background of the head of the household working in the agricultural sector. (3) Based on the environment, the proportion of rural youth who work in the agricultural sector is greater in an environment where SMA facilities are not available, difficult to access the nearest SMA; in an environment with a GPRS internet signal below; who have no open market and have difficulty accessing the nearest market, who live in an environment where there is no bank, or who live in an environment where there is no bank and have difficulty accessing the nearest bank or who live in an environment where there is a reservoir.

Based on multinomial logistic regression analysis, there are 7 (seven) factors (gender, education level, marital status, occupation of the head of the household, internet signal conditions, access to markets, road accessibility) that affect the participation of rural youth working in the agricultural sector both for rural youth working in the non-agricultural sector and the NEET category, namely: (1) Male rural youth have a higher chance than women to work in the agricultural sector, both for rural youth who work in the non-agricultural sector and become NEET. (2) The higher the education level of rural youth, the less likely they are to work in the agricultural sector compared to those who have graduated with a Diploma/Bachelor. This explains the phenomenon of the low education level of rural youth who work in the agricultural sector. (3) The marital status and work background of the head of household affect the opportunities for participation of rural youth to work in the agricultural sector. Rural youth who have ever been married or those with the head of the household workers in the farming sector has a greater chance of working in the agricultural sector. This can illustrate the influence of families in youth decisions to participate in the farming sector. (4) There are 3 (three) environmental factors that have a statistically significant influence on the opportunities for participation of rural youth in the agricultural sector. The possibilities in environments with weaker internet signal conditions, no market, increasingly demanding market access, and better road accessibility tends to increase.

V. Suggestion

1) To increase the participation of rural youth in the agricultural sector, not only focus on attracting youth who work in the non-agricultural sector, but also the interest of youth who are not utilized in economic development (NEET).
2) The low level of education of rural youth who work in the agricultural sector, so the training program is oriented towards skills that are easy to master, especially in agriculture and agribusiness, which are expected to increase the interest of rural youth in the agricultural sector.
3) Adopting APBD allocations and balancing funds is more effective and oriented to programs to increase rural youth human resources in the agricultural sector.
4) Economic development programs in rural areas through intensifying mentoring programs in revitalizing agriculture, expanding access to capital by the character of businesses in agriculture and fostering microfinance institutions.
5) Development of agricultural centres in rural areas will be able to encourage the emergence of youth interest to be involved in the farming sector
6) Infrastructure development in rural areas does provide not only supporting facilities but also its use, primarily to support agricultural development.

7) Further research is needed to address the problem of decreasing youth participation in the agricultural sector.

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