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Research Article

Household Food Security in Non-Food Centres of West Kotawaringin District, Central Kalimantan Province

Juni Gultom[1)], Nuhfil[2)], Indah[3)], Rosihan[4)]
Student of Postgraduate Doctoral Programme, Universitas Brawijaya, Indonesia
juni.gultom68@gmail.com, nuhfil.fp@ub.ac.id, indah.qurbani80@ub.ac.id , rosihan@ub.ac.id

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ABSTRACT

This study aims to analyze the factors affecting food security in non-food center areas of West Kotawaringin Regency, Central Kalimantan Province. It is known that West Kotawaringin Regency with a population of more than 270 thousand people in 2023, is very dependent on outside the region in terms of meeting its food needs. The ability of food agricultural production, especially rice, is only able to fulfil 3 percent of the population's needs. This research is based on the welfare state as an analytical tool, and the Livelihood Assets theory to analyze how individuals, families, or communities acquire and utilize various assets to meet their life needs and survive in difficult conditions. The results of the research showed that livelihood assets that affect household food security in West Kotawaringin Regency are physical assets, social assets, human capital, financial assets, and natural capital.

Keywords: Food Security, Welfare State, Non-Food Centres, Livelihood Assets

INTRODUCTION

Food security is a major global issue these days. Production has been disrupted by drought and the conflict between Russia and Ukraine, exacerbated by protectionism by food-producing countries. As a result, the world's food supply is shrinking. This increases the risk of a food crisis or famine around the world. However, the *Global Food Security Index* (GSFI) notes that in 2022 the global food security index will be at 62.2 on a scale of 100. This figure is lower than before the pandemic, where the global food security index had reached 62.6 in 2019.

Based on data from the Global *Food Safety Initiative (GFSI),* Indonesia's food security index in 2022 will be 60.2 or 63rd out of 113 countries. This figure is still below the world average index of 62.2 and Asia Pacific of 63.42. One of the problems threatening Indonesia's food security is the conversion of agricultural land, which reaches 90-100 thousand hectares every year. In fact, to achieve national food self-sufficiency by 2024, Indonesia still needs 12.48 million hectares of rice farmland. Weather conditions pose a significant short-term risk to the downward trend in prices, with the US National Oceanographic and Atmospheric Administration's Climate Prediction Centre announcing the formation of the El Niño-Southern Oscillation phenomenon. This phenomenon will cause parts of the world to experience warmer sea surface temperatures, driving record warm air temperatures and altered rainfall patterns, which could limit crop yields, especially in the southern hemisphere.

A global food crisis occurs when the rate of hunger and malnutrition increases sharply at the global level (Timmer, 2012). This definition differs from a food crisis in that chronic hunger is possible even among populations that have previously suffered from hunger and malnutrition over a long period of time. A global food crisis occurs when there is a major change in the supply or demand for food that causes a short period of high price spikes. The main cause of a global food crisis is a high decline in food production.

According to Government Regulation of the Republic of Indonesia Number 17 of 2015 Food Security is a state of fulfilment of nutrition for the state to the community which is reflected in the affordability of adequate food, both in quantity and quality, protected, diverse, nutritious, fair and reasonable and does not conflict with religion, beliefs and culture of the local area, has the choice to live. sound, dynamic, and useful in a way that can be regulated. Food security is a condition in which food is fulfilled for the community up to the individual level (Nugroho and

Mutisari, 2015). The difference between family resilience, regional food security and national food security is only in the scope of coverage. Household food security is more focused on the fulfilment of sufficient food, in terms of quantity, quality, safety, distribution and affordability.

This research tries to look at food security in West Kotawaringin Regency where this area is one of the districts with superior potential for large oil palm and rubber plantations.Badan Pusat Statistik, (2022) states that agricultural products included in the food security category are rice, corn, soybeans, peanuts, green beans, cassava and sweet potatoes. Oil palm is still a plantation commodity that is considered promising for the economy of the people of West Kotawaringin Regency. The area of oil palm smallholder plantations in 2020 reached 77.38 per cent of the total area of smallholder plantations in West Kotawaringin District. The contribution of plantation crops in West Kotawaringin is ranked as a major contributor to the acquisition of West Kotawaringin GRDP by 20.53 per cent. However, there are still few agricultural products that are food security products such as rice, corn, soya and sweet potatoes, the majority of which are dominated by oil palm.

Problem formulation

The formulation of the research problem is the low food self-sufficiency and household food security in West Kotawaringin Regency, Central Kalimantan Province, so the formulation of the problem in this study is how food security in West Kotawaringin Regency.

Research Objectives

This study aims to analyze food security in the West Kotawaringin district related to *human assets, natural assets, financial assets, social assets, physical assets*.

Research Benefits

The purpose of research is so that data can be found, developed, and proven, while the results of research will gain new knowledge that can be used to understand, solve, and anticipate problems, namely about food security.

Research Methods

This research uses a Qualitative method with data analysis using descriptive statistics. The population in this study were all people in 81 villages and 13 sub-districts in West Kotawaringin Regency totaling 246,214 people with a sample of 400 people spread across 94 villages and sub-districts.

ANALYSIS AND DISCUSSION OF RESEARCH VARIABLES

a. Food Security Variable

The results of descriptive statistics of food security variables inform 5 (five) indicators that makeup food security, namely food availability, food access, food utilization, agency, and sustainability. The highest achievement indicator is sustainability. The lowest achievement indicator is food access. 225 respondents (56.25%) agreed with the statement that the global economic crisis made food prices expensive. 205 (51.25%) respondents also stated that land conversion threatens food availability.

151 respondents (37.75%) agreed with replacing the staple food of rice with sweet potatoes, corn, and or others. 194 respondents (48.50%) agreed to have alternative food reserves. 170 people (42.50%) respondents agreed with processing food ingredients into varied foods. 163 people (40.75%) agreed with the statement of providing processed substitute staples. 178 people (44.50%) agreed with the government's role in helping household food security. 134 people (33.50%) agreed with the statement that food provided by Bulog was easy to obtain. however, 140 people (35%) disagreed with the statement that it was difficult to access rice. 157 people (39.25%) also disagreed with the statement that rice stocks around the house often run out. In general, 43.25% of respondents stated that food security was good. 18.50% of respondents stated that food security was not good. In general, the food security variable is at a moderate achievement with an average score of 3.14, meaning that there is still an opportunity to improve it to be very high by increasing the achievement of indicators with low and moderate achievements, namely indicators of food access, food availability, food utilization, and agency.

The characteristics of the respondents stated that the main occupations of the respondents were farmers, carpenters/masons and traders with a major education level of elementary school graduates and the number of family members of the majority of 3-5 people. this is one of the causes of the achievement of food security variables

in the moderate category because of the low level of education, because of the heavy work namely farmers and masons, what is needed is filling food, not considering nutritional adequacy and balance.

Government Regulation of the Republic of Indonesia Number 17 of 2015 states that food security is the fulfillment of nutrition for the state to the community which is reflected in the affordability of adequate food, both in quantity, quality, protected, diverse, nutritious, fair and reasonable and not contrary to religion, belief and local culture.

b. *Human Asset* Variable

Descriptive statistical results of human asset variables such as informing 3 (three) indicators that make up human assets, namely community health, latest education, training and expertise and community skills. The highest achievement indicator is sustainability. The lowest achievement indicator is food access. 170 people (42.50%) agreed that health conditions are getting better. 140 (35.00%) respondents agreed with the statement that they could not continue their education to a higher level.

112 people (28.00%) disagreed with the statement of having special skills at work. 116 people (29.00%) disagreed with the statement following a lot of training and work skills. The average value of the *human asset* variable indicator is 3.26 with a medium achievement category. This means that there is still an opportunity to increase to very high by increasing the achievement of indicators in the medium category, namely the latest education, training and work expertise, community skills.

Human assets when associated with the respondent's profile can be seen that the respondent's education level is generally still low, namely elementary school graduates (41.50%). in addition, 299 people (74.75%) have never attended informal education such as training to improve work skills. Bangun, (2012: 142) states that *human capital* refers to the economic value of human resources or assets owned by human resources.

***c. Natural Asset* Variable**

The descriptive statistical results of the *natural assets* variable as presented in table 5.40 inform 2 (two) indicators that make up *natural assets*, namely agricultural productivity and land ownership. The highest achieving indicator is land ownership. The lowest indicator of achievement is agricultural productivity. 106 people (26.50%) of respondents agreed with the statement that agricultural productivity has increased, 142 people (35.50%) were neutral or had no opinion. 148 people (37.00%) disagreed with the statement that agricultural land area has increased. 101 people (25.25%) disagreed with the statement owning their own farmland and 141 people (35.25%) agreed with the statement owning their own farmland.

The average value of the natural asset variable indicator is 2.98 with a medium achievement category. This means there is still an opportunity to increase it to a very high level by increasing the achievement of indicators in the medium category, namely agricultural productivity and land ownership. The respondent profile shows that 35.25% of respondents own their own agricultural land. Masud et al. (2016) stated that natural assets are a factor that affects food security. the reduction in land area converted into settlements, declining agricultural productivity is the cause of declining household food security.

***d. Financial Asset* Variable**

The descriptive statistical results of *financial asset* variables inform 3 (three) indicators that make up *financial assets*, namely community income, ownership of savings, ownership of investment and access to borrowing/borrowing. The highest indicator of achievement is access to borrowing/debt. The lowest indicator of achievement is investment ownership. 109 people (27.25%) disagreed with the statement of increased monthly income, 168 people (42.00%) were neutral towards the statement of increased monthly income. 116 people (29.00%) disagreed with the statement having savings left over from household expenses, 120 people (30.00%) had no opinion on the statement having savings left over from household expenses and 104 people (26.00%) agreed with the statement. 140 people (35.00%) disagreed with the statement investing from savings and 195 people (48.75%) agreed with the statement easy access to borrowing / debt.

The average value of the *financial asset* indicator is 3.10 with a medium achievement category. This means that there is still an opportunity to increase it to a very high level by increasing the achievement of indicators in the medium category, namely community income, ownership of savings and access to borrowing/debt. *Financial assets* if associated with the respondent profile can be stated that in general respondents do not have excess household expenditure to save and invest, this is due to household income being used up for household consumption with the

majority of family members 3-5 people. *Financial assets* can take the form of savings or deposits, pension funds, business profits, wages/salaries (https: // id.wikipedia.org / wiki /Financial Assets).

e. Physical Asset Variable

The results of descriptive statistics of *physical asset* variables inform 5 (five) indicators that make up *physical assets*, namely living conditions, vehicle ownership, road access conditions, water access conditions, and sanitation access conditions. The highest achievement indicator is living conditions. The lowest indicator of achievement is the level of vehicle ownership. 217 people (54.25%) of respondents agreed with the statement of livable housing, 197 people (49.25%) of respondents agreed with the statement of self-owned housing. 136 people (34.00%) disagreed with the statement of having more than 1 private vehicle. 149 people (37.25%) agreed with the statement of good road access, 224 people (56.00%) agreed with the statement of easy water access conditions and 211 people (52.75%) agreed with the statement of easy sanitation access conditions.

The physical asset variable average indicator value is 3.56 with a high achievement category. this means that there is still an opportunity to increase it to be very high by increasing the achievement of indicators in the medium category, namely vehicle ownership, water access conditions, sanitary access conditions. A physical asset is an item that has economic, commercial, or exchange value that has material existence. Physical assets are also known as tangible assets (https://www- investopedia-com).

f. Food Distribution Variables

The descriptive statistical results of food distribution variables inform 2 (two) indicators that make up food distribution, namely distribution *channels*, distribution of physical food flows. The highest achievement indicator is the distribution of physical food flow. The lowest achievement indicator is distribution *channel*. 144 people (36.00%) agreed with the statement that there are many food distribution channel institutions. 223 people (55.75%) agreed with the statement of physical activity of food flow smoothly. The average value of the food distribution variable indicator is 3.51 with a high achievement category. this means that there is still an opportunity to increase it to be very high by increasing the achievement of indicators in the medium category.i.e. distribution *channels* and channelling the physical flow of food.

Fuad, (2009) stated that an adequate food distribution system is expected to fulfil food availability in an area. Food availability serves to ensure food supply to meet the needs of the entire population, in terms of quantity, quality, diversity and safety. Food availability can be fulfilled from three sources, namely: (1) domestic production, (2) food imports and (3) food reserve management. from the above statement, it can be concluded that food security is influenced by food distribution.

CONCLUSION

Food security is a condition where food is fulfilled for the community up to the individual level. Based on the results of the research, it was found that livelihood assets that affect household food security in West Kotawaringin Regency are as follows:

1. *Physical assets* are the main factors affecting household food security, including living conditions, vehicle ownership, road access conditions, water access conditions, and sanitation access conditions. The highest achievement indicator is living conditions and the lowest indicator is vehicle ownership.

2. *Social assets*, which are second-order factors affecting households' resilience, include the level of community welfare, kinship relations, community participation, and community social networks. The highest achievement indicator is the community social network and the lowest achievement indicator is the community welfare level.

3. *Human capital* is the third-order factor affecting household food security, including community health, recent education, training, and community skills and expertise. The highest achievement indicator is sustainability. The lowest achievement indicator is food access,

4. *Financial assets* are the fourth order of influence on household food security, namely community income, savings ownership, investment ownership, and access to borrowing/debt. community income, savings ownership, investment ownership, and access to borrowing/debt. The highest achievement indicator is access to borrowing/debt. The lowest achievement indicator is investment ownership.

5. *Natural capital* ranks fifth in influencing *household* food security, including agricultural productivity and land ownership. The highest achievement indicator is land ownership. The lowest indicator of achievement is agricultural productivity.

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