SELF-RELIANCE OF COMMUNITY FOOD BARNS IN KAPUAS DISTRICT, CENTRAL KALIMANTAN

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ABSTRACT
This paper aims to determine the self-reliance of community food barns, so that it meets the food reserves sourced from domestic production, and is a layered reserve system. The development of community food barns is carried out in the context of empowering and protecting the community from food insecurity, by facilitating physical storage of barns, replenishing food reserves and strengthening institutional groups. Through this empowerment the community is expected to be able to manage the existing food reserves in the group, and also be able to increase their role in carrying out economic functions for their members so that they are able to maintain and develop their food reserves.

Key words: self-reliance, community, food barns, community, empowerment

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1. INTRODUCTION
National food reserves consist of government food reserves, regional government food reserves, and community food reserves. Village food storage institutions that are still at the level of simple and socially oriented, have the potential to be developed and revitalized through a process of empowerment in a systematic, integrated and sustainable manner by involving all relevant elements. This effort is expected to be able to make a significant
The definition or definition of food security in the version of the Republic of Indonesia has been formulated in the Law of the Republic of Indonesia number 18 of 2012 Article 1, namely food security is the condition of the fulfillment of food for the country up to individuals, which is reflected in the availability of sufficient food, both in quantity and quality, safe, diverse, nutritious, equitable, and affordable and not contrary to the religion, beliefs and culture of the community, to be able to live healthy, active, and productively in a sustainable manner. National Food Reserves are food supplies throughout the territory of the Unitary Republic of Indonesia for human consumption and to deal with food shortages, supply and price disruptions, and emergencies.

Referring to the various definitions that apply in Indonesia and internationally, the relevant parties that compose the Food Law formulate food security limits in which they summarize several important points, including: 1) Fulfillment of food needs for the country to the individual level; 2) Benchmarks for the fulfillment of food needs include various aspects, namely: a) in terms of sufficient quantity, b) in terms of good quality, safe for consumption, various types of food available, meet nutritional adequacy, c) in terms of spiritual food security, food must not contradict the rules of religion, beliefs and culture of the community, and d) in terms of economic affordability, food is available evenly to all corners of Indonesia at affordable prices by all components of society; and 3) Provision and affordability of food is intended so that the community to individuals can live healthy, active and productive in a sustainable manner.

This paper aims to determine the self-reliance of community food barns, so that it meets the food reserves sourced from domestic production, and is a layered reserve system. Because of the availability of diverse local food sources, national food reserves can be a source for the provision of diverse food for the community.

2. FOOD SECURITY
2.1. Sustained Resilience
According to Maharani (2016) there are three subsystems in the food security performance system, including availability, affordability, and food utilization. There are also several parameters used in measuring food security performance, namely achieving self-sufficiency in five important food commodities, availability of energy and protein per capita (availability), proportion of poor population, energy consumption and protein per capita (affordability), achievement of the Hope Food Pattern score, and nutritional parameters for children under five years old or toddlers.

Atem and Niko (2020) efforts to prevent the threat of food crisis with the development state model are developing quite well in East Asian countries, by looking at the following things;
1) First, availability. Population growth in Indonesia is increasing every year, and will be expected to experience a demographic bonus in 2025. In the case of several countries such as China and India, from the perspective of food availability, it is really worrying.
2) Second, accessibility. Elements of accessibility can be seen from the affordability of the community towards decent food. This means that food availability is open to all groups of people. The role of the government is needed to organize the guarantee of food price stability, so that people from all walks of life have the same rights and opportunities in accessing the food needs of their respective families. Food subsidies and policies that favor local (small) farmers and people from weak economies, the role of government is needed.
3) Third, stability. Integration of government policies in the agricultural sector, the real economy sector, is needed with macroeconomic policies. In order to maintain national production stability and public accessibility to food fulfillment, price stability in each national food product is needed. This can be illustrated in the existence or availability of national food every year which does not cause social conflict. Maintaining local (family) food stability, is important for national food security. Can be seen in farming communities in rural areas, they continue to be sustainable, even though the results are only for families.

4) Fourth, safety. In order to win free trade, a technology-intensive and market-oriented style of agriculture is needed. Agriculture and animal husbandry are fully encouraged to be able to meet the quality and quantity of products that are standard on the international market. This was created so that local farmers' local products have a comparative advantage and good bargaining position. To that end, updating agricultural technology and local innovation needs to be encouraged, of course coupled with adequate incentives for the welfare of local farmers so that they have the motivation to move forward and develop in the future.

2.2. Fulfillment

There are four challenges faced in terms of food needs and utilization, including those related to increasing per capita income, increasing population and dynamics of demographic characteristics, changing tastes due to access to information or promoting global food that is very high, and competition for the use of food:

1) There is a high population growth along with the dynamics of its demographic characteristics, including urbanization and an increasing proportion of women entering the labor market. The quantity or amount of food needs each year will increase in line with the population growth that is quite high. Because of the large population, the additional food demand per year will also be very large. Urbanization, which is one of the population dynamics, will continue due to push factors from the agricultural sector, because this sector cannot accommodate the new workforce or cannot meet expectations regarding wages received or working conditions deemed uncomfortable. In addition to urbanization, changes in some regions that were previously characterized by villages have been transformed into places that have the character of a small town or city that will continue in line with economic growth and regional autonomy. These two factors will accelerate the increase in the population of cities or urban areas. This will have the consequence of a greater proportion of food demand patterns characterized by city population preferences. Women's labor force participation also increased. In the next 9 years it is expected that an even greater proportion of women will be employed. This will strengthen the demand for ready-to-eat foods, both those eaten outside the house and inside the house.

2) Economic growth in the last 11 years is quite high above the average of 5 percent per year. In the next 9 years, the target of high economic growth will continue to be maintained because this country really needs to catch up with the underdeveloped economic development of developed countries. High economic growth will have an impact on increasing income per capita or people's purchasing power, even though the distribution is not evenly distributed to each individual. This situation will increase food demand in terms of quality, diversity, quality, and safety (Jarias, 2020a, 2020b). One effort to handle it and at the same time take advantage of processed food business opportunities is through the mastery and application of food technology in order to respond to changes in demand for food, so as to be able to provide food according to the dynamics of market demand and consumer preferences well.

3) At this time there is a change in appetite for food consumption which is starting to leave local food and traditional food. Food consumption patterns are influenced by surrounding food resources, people's purchasing power, knowledge about food and nutrition, and
consumer tastes. Changes in food tastes today are shaped and strongly influenced by the rapid development of media information technology that is utilized by the promotion / advertising media, including advertisers who sell food and drinks that image their products labeled current, cool, and global trends. Television advertisements are considered more likely to offer products that reflect consumerism culture and consumer lifestyles.

4) Competition for demand for food commodities for human consumption, animal feed, raw materials for bio energy (Mangkoedihardjo and Samudro, 2014), and raw materials for non-food industries will continue and be tighter in the next 9 years. This demand competition is derived from an increase in demand for livestock products, the higher price of fossil-based energy, and an increase in demand for industrial products that use food in their production processes. This problem must be anticipated wisely through high production of food commodities and the involvement of the food industry.

2.3. Community Food Barns

The Community Food Barns (LPM) which was built and developed by the Ministry of Agriculture through the Ministry of Agriculture's Food Security Agency from 2009-2019 reached 3,993 LPM; of which 3,296 LPM have entered the development stage and 1,622 LPM have entered the independence phase. The stages of LPM activities include: a) Growth Stage: physical development of food barns through Physical DAK in Agriculture; b) Development Phase: facilitation of LPM filling through APBN; and c) Independence Phase: facilitation of institutional strengthening (Ministry of Agriculture of Food Security Agency, 2020).

The target of the 2019 FY Community Food Storage Development Activity is 443 beneficiary groups located in 25 provinces spread across 135 districts. In 2020, as many as 300 LPM groups spread across 120 districts in 28 provinces received Banper to replenish food reserves in the granary. In most parts of Indonesia has been directly utilized by the LPM group to buy grain / rice. These efforts are in line with the current harvest potential, so as to maintain price stability at the farm level.

LPM activities through the APBN 2020 are focused on filling the LPM development stage which was built through the Physical DAK of Agriculture in the 2014 FY and/or DAK of the previous year which had received 1 (one) time Government Assistance (Banper) or had never been. Whereas for 163 LPMs whose construction is funded by the Physical DAK in Agriculture: a) Development Phase, facilitation through the State Budget of Rp. 20,000,000, - for filling food reserves b) Independence Stage, facilitation through the State Budget of Rp. 20,000,000, - for institutional strengthening.

The existence of LPM as a community food reserve is very important to maintain the continuity of availability and access to community food, especially for farmers who act as providers of food. Based on estimates of food availability, the rice balance until June 2020 experienced a surplus of 6.4 million tons. While other commodities are also surplus, such as corn 1 million tons, onions 330 thousand tons, large chili 27 thousand tons, cayenne pepper 68 thousand tons, and chicken meat 306 thousand tons. Until now the rice stock reaches 3.4 million tons in Bulog amounting to 1.4 million tons, in mills 1.2 million tons, in traders 728 thousand tons, Cipinang Rice Main Market (PIBC) 26 thousand tons and in the Food Barn Community (LPM) as much as 2,939 tons. So it is estimated that sufficient availability and stable prices.
3. KAPUAS DISTRICT FOOD RESERVE

3.1. Legality

Provincial Government Food Reserves are food supplies controlled and managed by the provincial government. Article 27 paragraph 1 of the Government Food Reserves in realizing the National Food Reserves as referred to in article 23 paragraph 1) The Government shall determine the Government Food Reserves and Regional Government Food Reserves; 2) Government Food Reserves as referred to in paragraph 1) preferably sourced from domestic Food Production; 3) Regional Government Food Reserves as referred to in paragraph 1 consist of: a) Village Government Food Reserves; b) Regency / City Government Food Reserves; and c) Provincial Government Food Reserves.

Article 32 paragraph 2 of Law number 18 of 2012 concerning Food mandates that the Government and Regional Government facilitate the development of community food reserves in accordance with local wisdom. The development of community food reserves is carried out in the context of empowering and protecting the community from food insecurity, by facilitating the physical development of granaries, replenishing food reserves and strengthening institutional groups. Through this empowerment the community is expected to be able to manage the existing food reserves in the group, and also be able to increase their role in carrying out economic functions for their members so that they are able to maintain and develop their food reserves.

The development of community food reserves, has two sides of relevance namely:

1) Strengthening the existence of food reserves to realize the guarantee of food availability and affordability for the community. For this reason, there needs to be synergy between members of the beneficiary groups, agricultural extension workers, central and regional food security apparatus; 2) Develop community participation optimally to develop community food reserve institutions. This leads to efforts to realize community welfare through the development of productive economic business activities in the field of food management which are carried out synergistically by the community food storage institution Kapuas Regent Regulation number 48 of 2016 dated 30 December 2016 concerning Position, Organizational Structure of Duties and Functions and Work Procedures Kapuas Regency Food Security Service article 2 paragraph 1 The Department of Food Security is an element of implementing government affairs in the field of food which is the regional authority; 2) The Food Security Service referred to in paragraph 1 shall be led by the Head of Service domiciled and responsible to the Regent through the Regional Secretary.

The Food Security Service carries out its duties and functions in article 4 paragraph 2: a) the formulation of regional policies in the fields of food availability, food insecurity, food distribution, food reserves, diversification of consumption and food security; b) implementation of regional policies in the fields of food availability, food insecurity, food distribution, food reserves, diversification of consumption and food security; c) coordinating the provision of infrastructure (Fernando et al., 2018; Ludang et al., 2018; Murhaini and Ludang, 2020) and support in the fields of food availability, food insecurity, food distribution, food reserves, diversification of consumption and food security; d) improving the quality of human resources in the fields of food availability, food insecurity, food distribution, food reserves, diversification of consumption and food security; e) monitoring, supervising, evaluating and reporting in the areas of food availability, food insecurity, food distribution, food reserves, diversification of consumption and food security; f) implementation of the administration of the Department of Food Security; and g) the implementation of other functions given by the Regent in relation to his duties and functions.
The reality of the LPM program in Central Kalimantan from 2009 to 2019, has developed as many as 141 units of community food barns spread in 14 districts / cities throughout Central Kalimantan. Kapuas Regency develops as many as 23 food barns which have been facilitated physical construction of barns and filling of grain / rice whose funding comes from the Special Allocation Fund (Development and Independence Phase) or community food storage development activities sourced from provincial and / or district / city APBDs. Determination of the location and beneficiaries of Central Kalimantan Province in 2020 as many as 5 beneficiaries spread over 2 districts / cities (Central Kalimantan Food Security Agency, 2020).

Based on data from the Department of Food Crops Agriculture, Horticulture, Animal Husbandry in Central Kalimantan Province in 2020 it is predicted that the amount of rice production will be 107,434.43 tons / year, in which there are 6 (six) surplus districts with a total of 19,150.78 tons / year, namely Barito Regency North, Sukamara, Lamandau, Katingan, Pulang Pisau, and East Barito. While other districts have a deficit in rice production, this is because the amount of rice consumption needs is greater than the amount of production. One of the centers of rice production known so far is Kapuas Regency, but instead from the production data there is even a deficit, so that the existence of food barns becomes necessary for storage of grain / rice as food reserves.

### 3.2. Village community Food Barns

Food Reserves of the Community are food supplies controlled and managed by the community at the level of traders, communities and households (Law number 18 of 2012 article 1). LPM development based on Government Regulation number 68 of 2002 article 8 explains that the community has the broadest rights and opportunities in the effort to realize community food reserves carried out independently and in accordance with their respective abilities. Article 14 the community has the opportunity to participate as widely as possible in realizing food security, where the community's role is in the form of: a) carrying out food production, trade and distribution; b) managing community food reserves; c) carry out prevention and overcoming food problems.

The development of Community Food Reserves in the Minister of Agriculture Regulation of the Republic of Indonesia number 17 / Permetan / HK.140 / 4/2015 aims to: 1) Increase the volume of stock of food reserves in the food storage group to ensure access and sufficient food for its members, especially those experiencing food insecurity; 2) Increase the ability of management and group members in managing food reserves; and 3) improve the institutional function of the community food reserves in providing food in an optimal and sustainable manner.

Increase the volume of food reserves of the group in order to ensure the availability and affordability of food through the facility of providing Government Assistance (Banper) to the LPM group to manage food reserves based on productive economic endeavors with the following indicators:

1) Output indicator; a) All output indicators are distributed; b) Distribution of all banper funds for LPM filling; c) Managed by LPM while maintaining book value in the form of available grain and / or rice stock and / or available rice and / or circulating in groups at least equivalent to Banper value.

2) Outcome indicators; the functioning of outcome indicators; the functioning of the LPM as a community reserve.

3) Benefits; the development of LPM as a sustainable community food reserve.

4) Impact; the realization of community food security.
The LPM development strategies are: a) Increasing the ability of human resources through training and coaching to strengthen group institutions; and b) Development of food reserves based on group productive economic endeavors. The elaboration of the LPM development strategy requires the following steps of implementation activities: a) Increasing the ability of human resources through training and coaching; b) Strengthening food reserves; and c) Strengthening group institutions (Ministry of Agriculture's Food Security Agency, 2020).

The sustainability strategy of the local government program continues to foster LPM groups in order to achieve self-reliance through: a) Maintaining and maintaining group institutions; b) Increase the ability of management in managing food reserves and partnerships in a sustainable manner; c) Providing other supporting fund allocations from APBD both provincial and district / city to strengthen training and training in order to increase group capacity; d) Encourage the sustainability of food reserves based on productive economic endeavors in the group; and e) Conducting advocacy in the context of handing over the assets of the Agricultural Physical Special Allocation Fund (DAK) to the group as an effort to maintain its sustainability (Ministry of Agriculture's Food Security Agency, 2020).

3.3. Productive Economy Business

Food Law number 18 of 2012 article 32 paragraph 2 mandates that the Government and Regional Governments facilitate the development of Community Food Reserves in accordance with local wisdom. The community is directly involved as the actors in strengthening food security at the lower level. Further, the process of empowering community reserves can be seen in terms of their relevance, namely building guaranteed availability and affordability of food for the community. Community empowerment in developing food reserves is intended to make the community capable and independent in providing food in their area. In accordance with the consumption pattern of the community where the main staple food is rice, the commodity developed through empowering community food reserves is grain / rice.

3.4. Previous Studies

Some previous studies related to the Analysis of Characteristics and Classification of the Level of Independence of Community Food Reserves in Fulfilling Community Food Reserves in Kapuas District, include research from Priyono et al (2014). The purpose of this study was to assess farmers’ perceptions about the revitalization of food granaries of farmer groups and find out the relationship between the attributes of rice farmers with their perceptions of revitalization of food barns. This study results that farmers’ perceptions of food warehouse revitalization are good perceptions, namely 89%. Land and capital attributes are significantly correlated with farmers’ perceptions, while age, formal education, farming experience, total family burden, frequency of meetings, cosmopolitan, and technology information search are not significantly correlated.

Furthermore, Faqih and Rohayati (2015) produced the fact that: 1) there was a strong and tangible relationship between group member participation in the rice granary program and family food security; 2) there is a real relationship between the independence of group members in the rice granary program and family food security; and 3) There is a moderate and manifest relationship between group member partnerships in the rice granary program and family food security. In addition, Mardalis and Rosyadi (2015) show that the function and role of conventional rural granaries (LPD) in poor villages is not significant in contributing to improving household food security. Or in other words, LPD has very low performance and productivity, so it does not help farmers to improve their welfare. Therefore, LPDs in poor villages need to expand their functions and roles. Mulyo et al (2015) produced the fact that the
distribution of farm households is more food-insecure (53%) but the average is already food-resistant (87%), which means there is a disparity in energy sufficiency between farm households. Farmer households are included in food security in the low category (44%) with a distribution of 87%. The greatest diversity of food security of farm households is in the category of food shortage and food security.

Maharani’s research (2016) concluded that over the past six years macro Indonesia has been able to provide sufficient food to meet the needs of its citizens, but the quality of average food consumption of Indonesian people is still below the recommendations of nutritionists. The challenges to sustainable Indonesian food security in 2025 will be even tougher. To overcome these challenges, the article suggests that it is necessary to adjust the direction of food security development policies, especially in setting goals, choosing how to achieve goals, and determining national food security targets.

Next, Dwirayani et al (2017) reported that the perception value of the community represented by sample farmers based on the results of each total score of around 50% revealed a poor perception of the granary program, 40% moderate perception and 10% good perception. The conclusion from the Chi-Square calculation results with the assumption that the relationship is significant if the probability value <0.05, then the variable that is significantly related is the level of knowledge of members of the food granary program that is equal to 0.028. The level of knowledge of farmers is strongly related to the level of perception of food barns. It can also be concluded that the level of knowledge of farmers in food barns is in the category or level that is lacking and moderate. Correspondingly, Wismaya et al (2017) evaluated the growth phase that the government provided the conditions used to run the food storage program. The development phase can be categorized as a good achievement, the autonomy phase can be categorized as a moderate level achievement. The result is a good level of achievement, because members manage and utilize assistance using agreements that are formed in accordance with group agreements so that social gaps in the group can be avoided.

Furthermore, Purnomo et al (2018) concluded that the performance of each food institution was different. The potential and role of the Village Food Barn based on the level of efficiency achieved. This tends to be influenced by human resource skills and capital as input. Based on these conditions, the efficiency of food storage can be used as a form of independent change for the farming community and village food institutions, especially in realizing the achievement of regional food security. In addition, Ramadhani et al (2018) conclude that the mechanism of food storage is realized by saving and borrowing rice grain. Members of the food barn can borrow 100-1,000 kilograms of rice per year. They borrow rice at the time of scarcity before harvest time, and save rice after harvest time. Likewise Sadali (2018) concluded that the overall carrying capacity of food can be fulfilled by the current agricultural land area and rice production.

The development of the food security index was examined by Sutyawan et al (2019). Validation results showed that the index score had a significant negative relationship (p <0.01) with the proportion of food expenditure and a strong correlation (p <0.01) with dietary
diversity. In addition, the index score has a strong relationship (p <0.01) with the level of energy sufficiency, protein, fat, calcium, iron, zinc and diet diversity in infants. Index scores also have a significant relationship (p <0.01) with z-scores of under five nutritional status based on anthropometric indices of height by age, weight by age, and height by weight. The index developed from this study can be an alternative in assessing household food security status as well as strong predictors in seeing the picture of food consumption and nutritional status of children under five. Next, Elizabeth (2019) stated that as an increase in population growth, which averaged around 1.49%, it caused an increase in food demand, while economic growth was around 6-7% and food income was still elastic. Increasing and empowering the role of agricultural institutions is one of the government's strategies to support self-reliance and sustainable food security. Anticipating the immediate handling of food fulfillment is needed by increasing the participation of farmers in the empowerment of various related agricultural institutions and local wisdom. The need for an approach and study of various relevant laws and regulations as well as more serious, in-depth and sustainable assistance to take care of the procurement and availability of food to realize food independence towards sustainable food security.

4. CONCLUSION
Food barns development is a strategic effort in building a food security system at the community level. The existence of food barns is very relevant because it provides easy access to food, both in terms of physical affordability and purchasing power. To maintain the sustainability of the food granary institutions, it is not limited to the role of the government. Substantively, the existence of the existence of food barns is very dependent on the participation or full participation of farmer group members in its management.

REFERENCES


