

Community Food Security Malasari Village, Nanggung, Bogor

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Abstract

Food security is a fundamental aspect of human welfare, ensuring nutritional adequacy to support daily activities and enhance quality of life. This study examines food security in Malasari Village, focusing on food availability, procurement methods, and dietary patterns. Data were collected through questionnaires, observations, and documentation, then analyzed descriptively using charts, graphs, and narrative presentation. Results indicate that 56% of households rely on private agricultural land, 63% utilize home gardens for food crops, and 66% depend on private livestock for food sources. Staple food consumption predominantly consists of rice (84.06%), followed by cassava (10.14%) and bananas (5.80%). Supplementary food intake includes vegetables (24.18%), fruits (24.18%), fish (20.94%), eggs (10.7%), chicken (9.3%), nuts (9.3%), and meat (1.4%). The findings suggest that Malasari Village exhibits relatively high food security, supported by diversified local food production and accessibility. This study underscores the importance of sustainable agricultural practices and equitable food distribution to maintain community resilience.

Keywords: Food Security, Consumption, Community

Submission	:	Dec, 14 th 2024
Revision	:	Feb 17 th 2025
Publication	:	Apr 30 th 2025

INTRODUCTION

Indonesia is listed as the center of the world's economic plant distribution, so it has diverse food and biological resources. The Indonesian population relies on several types of plants as a source of vegetable protein, in addition to consuming animal protein sources that contain essential amino acids as food support (Walujo, 2011).

Malasari Village's location in Nanggung District, Bogor Regency, West Java Province. The village is part of Gunung Salak National Park, which is close to the forest. The people of Malasari Village have some agricultural land and utilize the natural resources around them that have the potential to support food security. According to Apriyanto et al. (2016), farmers in Nanggung District have long planted various types of tree stands and crops that have been managed for generations. These plants are managed as a source of food and a source of income for the local community.

Food is an essential need for humans to sustain their lives. Food availability and sufficiency not only play an important role in fulfilling sufficient calorie energy for increased productivity but also provide support for improving the quality of life (Kariyasa & Suryana, 2016). Food fulfillment also has a relationship with aspects of food security. Following Nasional (1996), food security is a condition of fulfilling food needs for households, not only in sufficient quantities but also that must be safe, quality, nutritious, diverse, and affordable. Food security can be realized if two aspects are generally fulfilled, namely 1). Adequate and equitable food availability for the entire population, and 2). Physical access is supported by an adequate economy to fulfill nutritional adequacy to realize a healthy and productive life (Pangan, 2007).

Diversification of food consumption is an effort to encourage people to vary food consumption patterns so that they are not focused on one type of food. According to Badan Kebijakan Perdagangan (2013), people's food consumption patterns will differ and change from time to time. Food consumption patterns from one region to another may differ depending on the environment, including local resources and culture, people's tastes, and income. Similarly, food consumption patterns will also change over time, influenced by changes in income, changes in public awareness of food and nutrition, and lifestyle changes.

Rice is the main staple food consumed by the Indonesian people. Apart from rice, commodities that play a role as a staple food are tubers, corn, sago, and bananas. However, the dominant and intensive government policies in the field of rice on an ongoing basis, starting from the upstream industry to the downstream industry, have resulted in a shift of staple food from local foods such as corn and tubers to the national staple food, namely rice (Ariani, 2010).

The problems of food insecurity and nutrition insecurity are problems that are closely related to the diversification of food consumption. According to Purwantini (2016), the problem of food insecurity in Indonesia is not due to low food production but due to uneven food distribution patterns. Food and nutrition insecurity is a reflection of the situation of individual food and nutrition adequacy in a community group. It occurs as a result of unequal access to food distribution. In addition, it also occurs due to social and economic problems, so it can be said that food insecurity can occur due to low food consumption. In this regard, diversification of food consumption is one of the main pillars in efforts to reduce food and nutrition problems. Diversification of food consumption for the community is an important aspect of the realization of quality human resources (Rachman & Ariani, 2008). This study aims to determine the availability of local food sources, diversification of local food consumption, and local food security in Malasari Village.

METHOD

Material and Tools

The tools used in this research included a voice recorder, questionnaire, digital camera, stationery, and a road board. Materials used in this research include documents, photographs, and recordings.

Data Collection

Collecting research data using survey methods, observation, interviews, and documentation of research objects. Interviews were conducted directly with the community in Malasari Village. The determination of the research location was carried out purposively with respondents who met the criteria, namely village officials, farmers, households, and entrepreneurs in the food sector, such as owners/managers of industries and owners/managers of food stalls. The data collected were primary and secondary data. Primary data was collected using a prepared questionnaire. Primary data collected included general data of respondents, as well as data related to food security that refers to information on diversification of staple food consumption and additional food, including the type of food and raw materials used, food produced by the village community, as well as the development and modification of food products. Meanwhile, secondary data was collected from reports or documents related to general information about locally processed food in Malasari Village from village officials and local villagers.

Data Analysis

Data analysis in this study used qualitative data with a descriptive analysis approach. Qualitative data were obtained from interviews and data collection on local communities regarding the diversification of food consumption that refers to food security. A presentation of data in the form of charts, graphs, and narrative text.

RESULT

Village Food Procurement

Malasari Village, Nanggung Sub-district, Bogor Regency, is located in the Gunung Halimun Salak National Park. Agricultural land and plantations in Malasari Village are dominated by rice and chili commodities (figures 1 and 2); in addition, there are also vegetable and spice commodities. Spice commodities are dominated by cardamom, while vegetable commodities are dominated by chili and cucumber (figure 3). All vegetable and spice commodities are sold and distributed outside the village, while rice commodities are only distributed within the village as the main staple food.



Figure 1. Rice farming land **Figure 2. Chili farming results**

Figure 3. Cucumber farming results

Most Malasari villagers own private agricultural land, 56% (figure 4), which is used to fulfill food commodities that are distributed within and outside the village. The

most common commodities grown on agricultural land are carbohydrate food commodities (47%) (figure 5), which are dominated by rice; the rest are cassava and bananas. Vegetable commodities are dominated by chili peppers. Vegetable commodities produced in this village include chilies, tomatoes, cucumbers, beans, long beans, leeks, chives, kidney beans, and onions. The remaining agricultural land is planted with fruit and spices. Fruit commodities include palm trees (frond fruit and palm sugar), bananas, avocados, and durians, while spices are dominated by cardamom, with turmeric and cloves the rest.

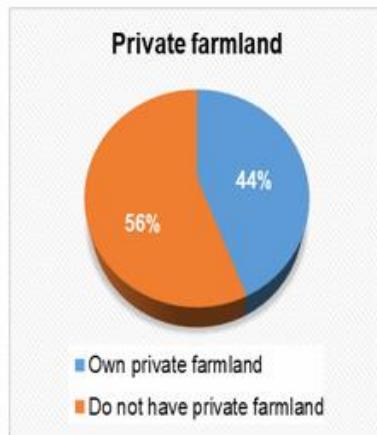


Figure 4. Private agricultural land

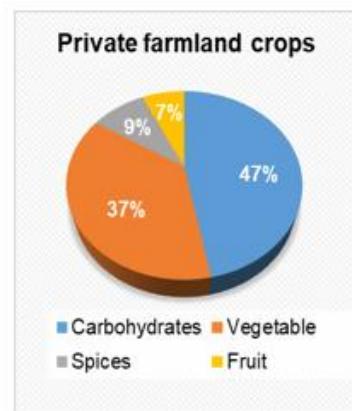


Figure 5. Plants land agriculture personal

The majority of Malasari villagers, 63% (figure 6), utilize their yards to grow food crops as a source of household food. The most common commodities planted in home yards are vegetables, 33% (figure 7) of which are: chili, onion, celery, water spinach, labuh siam, beans, long beans, eggplant, spring onion, chives, leunca, sosin, tomato, and bitter melon. The second most common commodity grown in home gardens is carbohydrate food, which includes cassava, banana, and taro. The rest are fruit commodities and spices. In fruit commodities, most residents plant citrus, avocado, banana, guava, strawberry, mango, papaya, pineapple, jackfruit, Chinese betel nut, longan, cherry, and passion fruit, while for spice commodities, they plant cloves, ginger, cardamom, turmeric, lemongrass, and lempuyang.

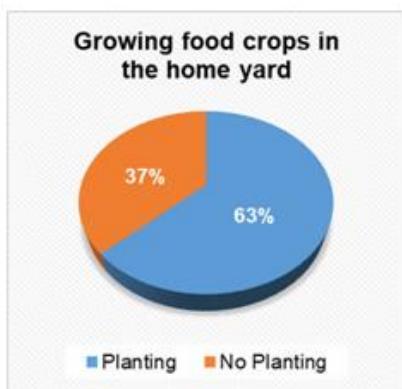


Figure 6. Home gardens are planted with crops in food crops

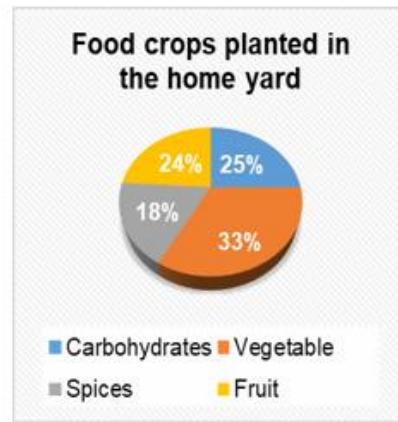


Figure 7. Types of food home gardens

In addition to being used to grow food crops, some residents' yards are dominated by livestock, as much as 66% (figure 8). The type of livestock that is often found in chicken, is 41% (figure 9). The second most common types of livestock are goats and chickens, and the third is fish. The types of fish commonly farmed are tilapia, goldfish, and milkfish. Some villagers who own livestock utilize the produce to be consumed as a source of household food, and if there is extra produce, the rest will be sold within or outside the village.

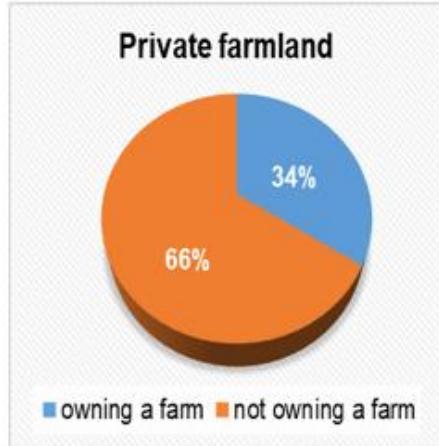


Figure 8. Private farmland
Diversification of Food Consumption

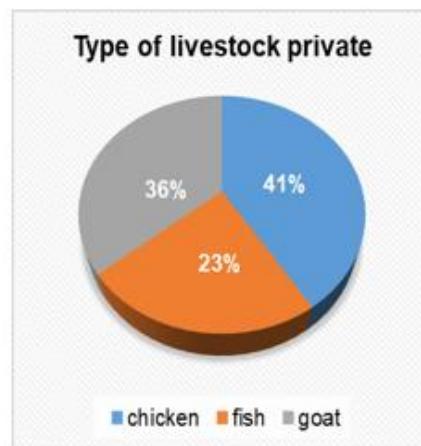


Figure 9. Types of private livestock

The Malasari Village community tends to consume rice (Figure 10) as a staple food due to the social environment and agricultural land conditions that are dominated by rice commodities, which in turn make rice the main staple food, and the habit of consuming rice as a staple food has been carried out for generations.

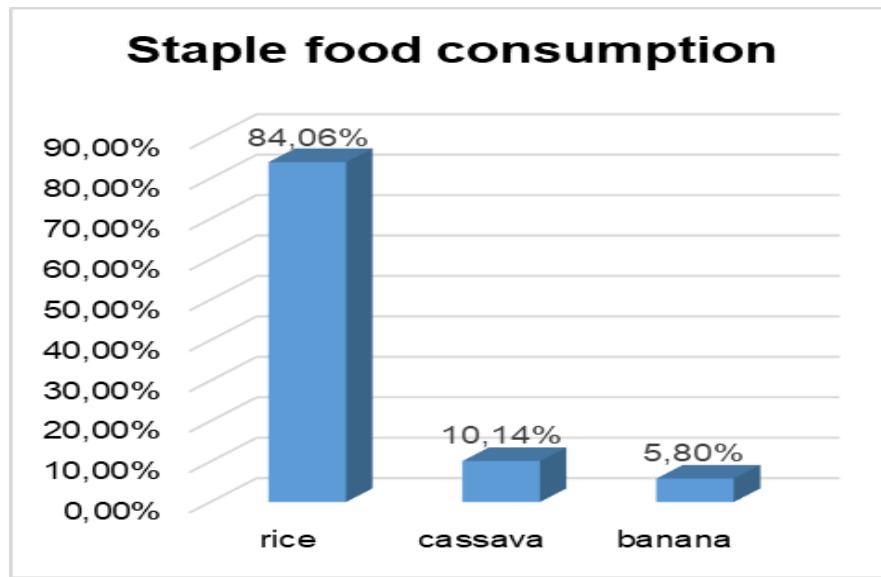


Figure 10. Diversification of staple food consumption

In horizontal diversification, rice is still the main staple food for Malasari villagers (table 1). In vertical diversification in Malasari Village, the diversity of food commodity processing is quite good with the discovery of several diverse food preparations (table 2).

Table 1. Horizontal diversification Malasari Village of food consumption in Malasari village

Staple food consumption	Usage	Description
Rice	84.06%	Considered easier to obtain and already accustomed to consuming rice as a staple food
Cassava	10.14%	Considered as an alternative food supplement as well as a fulfillment of secondary food sources
Banana	5.80%	Considered to have insufficient nutrition and as an alternative supplementary food

Table 2. Vertical diversification of food consumption in Malasari Village

Staple food	Source of commodity procurement	Types of preparations
Rice	Grown on agricultural land around the village as the main commodity for staple food, produced in large quantities and distributed	Processed into several cake preparations, some are processed by steaming or boiling.

	within the village, without being marketed outside the village.
Cassava	Grown on specific land, mostly in home gardens, produced in specific quantities for household consumption
Banana	Grown around village plantations or in home gardens, produced in certain quantities for household consumption.
	Processed into chips, ground into flour, boiled as a side dish
	Processed into several processed cakes and sponge cakes and processed by boiling for side dishes.

In consuming additional foodstuffs, the people of Malasari Village rely more on commodities that are easy to find in the market or their yards. Vegetables and fruit commodities are the most dominant commodities (figure 11) consumed daily, while fish commodities rank second in additional food consumption. Some of these commodities are consumed daily as side dishes to fulfill nutritional needs. Food preparations consumed from these additional foods are preparations that are often found, such as stir-fried vegetables, fried fish, vegetable chicken, meat stews, and others, all of which are processed household foods that are easily found in various regions.

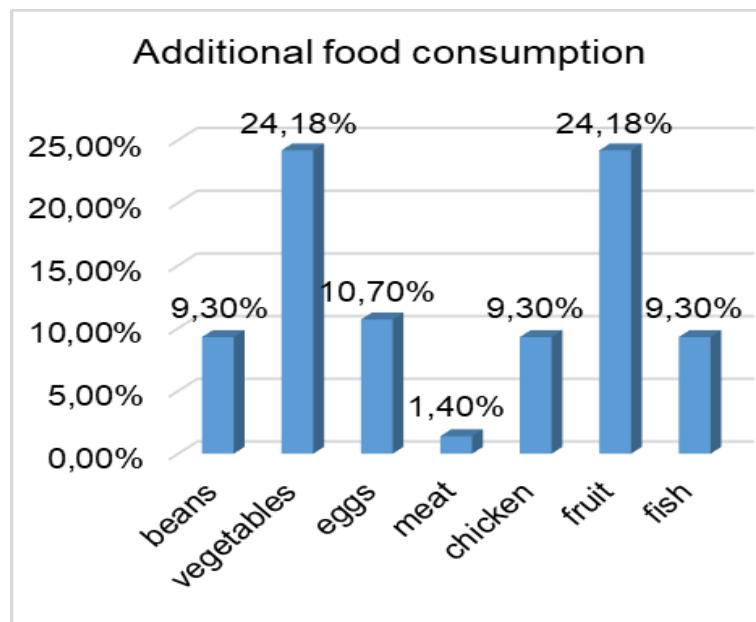


Figure 11. Diversification of additional food consumption

DISCUSSION

Village Food Procurement

The distance from the capital city of Bogor Regency to Malasari Village is 68.8 km. With no public transportation inadequate road access and public facilities, this village is

categorized as a remote village. According to Ariani (2012), a remote village is a rural area that is isolated from the center of regional growth or others due to not having or lacking transportation facilities (infrastructure), thus inhibiting regional growth. With all the limitations that exist in Malasari Village, the village community utilizes the existing natural potential to build the village economy so that it can meet their daily needs.

Most of the people in Malasari Village work as farmers. With this profession, the community has its own way of fulfilling its daily food needs. The availability of natural resources and ample farming land means that work in the agricultural sector is the primary orientation for daily livelihoods.

Malasari Village does not have a market for the distribution and supply of foodstuffs between villages. The closest market to Malasari Village is 27.3 km away from the Cigudeg market and 31.7 km away from the Leuwiliang market, both of which supply food from outside the village. In the absence of a market in Malasari Village, the villagers rely on vegetable vendors who travel around the hamlets in Malasari Village to fulfill their daily food needs. These vegetable sellers usually use a pickup truck to sell around the village once every two months (Figure 12), while vegetable sellers who use motorcycles sell around the village once every two weeks.



Figure 12. Handyman vegetable use car

With limited means of distributing food in the village, the people of Malasari Village utilize their yards to grow food crops. In addition to growing food crops, villagers also utilize their yards to raise fish, chickens, and goats (figures 13 and 14). The utilization of home yards aims to fulfill household food needs.



Figure 13. Fish farming



Figure 14. Livestock goat

Diversification of Food Consumption

Diversification of food consumption is aimed at diversifying the types of staple foods and all other foods consumed by households, including side dishes, vegetables, and fruits. It is intended that the more diverse and balanced the composition of food consumed, the better its nutritional quality (Suyastiri, 2008). In general, there are two kinds of food consumption diversification, consisting of horizontal diversification and vertical diversification. Horizontal diversification is the diversification of food consumption by increasing the variety of food commodities and increasing the production of these commodities, while vertical diversification is the diversification of food commodity processing, especially non-rice so that it has added value from an economic, nutritional, and social perspective (Budiningsih, 2010). Community efforts to diversify food consumption must also be supported by the availability of adequate natural resources. For the people of Malasari Village, the available food sources are supported by the existence of natural resources and excellent land-carrying capacity so problems related to the availability of food are not something to worry about. However, what is of greater concern is how the community's knowledge related to food consumption diversification can create a balance of nutrients and nutrition in daily food consumption. Based on the results of interviews, the Malasari Village community prefers rice because this commodity is easy to obtain, the price is affordable and the community has the view that consuming rice as a daily staple food is a must and a habit. In addition, some Malasari villagers also consume cassava and bananas as staple foods.

Community efforts to diversify staple food commodities are still limited to using cassava and bananas as alternative foodstuffs. This shows that the community in Malasari Village is not yet aware of the diversification of staple foods. Efforts to diversify staple foods are still very minimal, seen from the low percentage of the use of cassava and banana commodities as staple foods rather than rice commodities, whose percentage is very dominant. Even though when viewed from the availability of land and the ease of obtaining banana and cassava commodities is quite easy, the view of these commodities still makes them as alternative food only.

The process of making processed food is also still very traditional due to the lack of knowledge and utilization of technology so the utilization and processing are still very simple. Some processed products from staple foods include cakes and sponges, such as buras, cucur cakes, dodol, uli cakes, jipang, misro, combro, banana sponge cake, chips,

banana sale (figure 15), and others. Diversification is not done for marketing but mostly for personal consumption, with some trying to develop it without making it a source of income, although this is possible due to the availability of land and abundant natural resources.



Figure 15. Processed food "sale" banana

There is one additional processed food as a side dish that is so interesting and rarely found outside Malasari Village, namely processed cassava leaves processed by pounding, steaming, and then frying; the processed food is called "galider". Galider is often found in processed side dishes that are consumed daily. Galider has the appearance of shredded food, with a texture resembling mashed cassava leaves that are fried dry. This type of preparation is evidence that there is diversification in food consumption in Malasari Village.

CONCLUSION

1. In procuring food sources, the people of Malasari Village do not experience difficulties in obtaining food, as most of the villagers own private agricultural land (56%), food crops in their yards (63%), and private livestock land (66%).
2. The diversification of food consumption in Malasari Village is quite diverse, with most of the community using rice as their staple food (84.06%), cassava (10.14%), and bananas (5.80%). Meanwhile, additional food consumption, namely vegetables 24.18%, fruit 24.18%, fish 20.94%, eggs 10.7%, chicken 9.3%, nuts 9.3%, and meat 1.4%.
3. Local food security in Malasari Village can be said to be quite high, as seen from the diversification of varied food consumption and fulfilled food sources.

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