

Food Security on Regional Economic in Covid-19 Pandemic



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ABSTRACT: Economic activity had experienced a slowdown due to the Covid-19 virus outbreak, which hit the economy in various countries. The International Monetary Fund (IMF) predicts that GDP growth on a global scale will reach a figure of minus 3% by 2020. Poverty and income inequality are still the main problems in developing countries that can aggravate their condition. The technique used in this study is to use explanatory methods with descriptive analysis, using primary data with data collection methods using questionnaire techniques, interviews, and document analysis. The population used in this method is farmer households, with sampling carried out by random sampling. The results of this study show that economic access is the main thing that causes a household to still have difficulty in meeting basic needs.

KEYWORDS: Food Security, Regional Economic, Pandemic

1. INTRODUCTION

Economic activity has slowed down as a result of the spread of the C-19 virus that has hit the economy in various countries. The World Bank estimates that 49 million people will experience deep poverty as a result of the C-19 virus pandemic in various parts of the world (Mahler, Yonzan and Lakner, 2022). The International Monetary Fund (IMF) predicts that global GDP growth will reach minus 3% by 2020 (*International Monetary Fund*, 2022). The covid-19 virus can hit low-income workers to the point that it can result in income inequality (Thompson, 2020). Concerning the impact of the C-19 virus, the World Bank and the IMF have warned of vulnerabilities and economic shocks that could lead to a global economic crisis. Poverty and income inequality, which are still the main problems in developing countries, will become worse. One of the real impacts of the spread of the C-19 virus is the termination of employment and a decrease in people's income. This has an impact on the ability of people's purchasing power to meet food needs which are declining.

The fulfillment of food needs is closely related to the production capacity produced by the agricultural sector. The agricultural sector needs to be intensified in order to contribute significantly to development, food supply, and the achievement of economic output. In this case, farmers are the main important actors in carrying out production activities in the agricultural sector. One of the main needs of the community in maintaining their survival is food and also the availability of food is one of the important indicators in relation to the achievement of people's welfare. The need for food ingredients refers to the basic food needs of the community such as; rice, granulated sugar, cooking oil and butter, beef and chicken, chicken eggs, milk, corn, kerosene, and iodized salt. Among these food needs, rice is the staple food of most people in various regions in Indonesia. The availability of sufficient food for the people is usually accompanied by the ability of purchasing power and stable inflation.

The impact of the C-19 virus with the implementation of its control policies has disrupted the chain of production and distribution of agricultural products in the regions, thus affecting the supply and demand sides of food in the regional economy. Inflation data compiled from BPS shows that in the April 2020 period, there was an inflation of 0.08. Of the 90 CPI cities, 39 cities experienced inflation and 51 cities in Indonesia experienced deflation (Badan Pusat Statistik, 2019). Meanwhile, the price of grain and rice at the producer level in the January-May period showed a decline. Until May 29, 2020, the price of GKP grain at the farmer level was IDR 4,490 per kg and the price of premium rice at the milling level was IDR 9,321 per kg (*Kementerian Pertanian Republik Indonesia*, 2022). Even the World Bank in its report mentioned a decline in commodity prices in the world from January to March 2020 last month after the virus began to spread throughout the world (*The World Bank*, 2022). The decline in food prices was also in line with the decline in the farmer exchange rate index (NTP) in Indonesia. Data collected from BPS shows a decrease in national NTP from March 2020 of 102.09 or a decrease of 1.22 percent compared to the previous month's NTP. The decline in NTP was due to the Price Index Received by Farmers (It) falling by 1.08 percent, while the Price Index Paid by Farmers (Ib) rose by 0.14 percent (Badan Pusat Statistik, 2019).

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2. LITERATURE REVIEW

Food security is when everyone, at all times, has physical and economic access to safe and nutritious food that meets their food needs and food preferences for an active, healthy, and sustainable life (Mukhlis *et al.*, 2021). In this definition, there are 4 important points regarding food security, namely: food security, food availability, food access, and food security strategies.

2.1. Food Security

Food security cannot be separated from the development of the agricultural sector which is managed by the Indonesian people themselves and the nature of seasonal food commodity production also fluctuates because it is strongly influenced by climate and weather (Mukhlis, 2019). As mentioned in Law no.18 of 2012 concerning food, food security is a condition where the fulfillment of food for a country up to individuals, from the availability of sufficient food, both in quantity and quality, safe, diverse, nutritious, equitable, and affordable is also not contrary to people's beliefs and culture to be able to live a healthy and productive life continuously (BULOG, 2022).

2.2. Food Availability

According to Law no. 18 of 2012 concerning food, it is the availability of food from domestic production and national food reserves and imports if the two main sources of food cannot meet the needs of the community. Food availability is the physical availability of food in an area from various sources, be it domestic food production, trade, and also in form of food assistance (Dinas Ketahanan Pangan Provinsi Jawa Timur, 2022). According to (Mukhlis *et al.*, 2021) the availability of adequate food for the community, can also be used as a tool to ensure that there is no food scarcity in the economy. In other words, food security can be a lever for food price stability. The increasing need for food must be balanced with the amount of food supply, food supply not only in terms of the number of commodities but also from upstream to downstream management (Susilo, Purwanti and Fattah, 2017).

2.3. Food Accessibility

In this case, easy access to social, economic and communication facilities and infrastructure is important for people to meet food needs in their daily lives. With the lack of access to existing facilities and infrastructure, it can make it difficult for people to meet their food needs. Food accessibility is where there is the ability of a household to get food with its resources. Food access is divided into three types, namely:

1. **Physical access:** the distance traveled to the place of obtaining food supply along with its physical availability in stalls and markets.
2. **Economic access:** income and expenditure to meet food needs for sustainable living.
3. **Social access:** exchange of goods commonly called barter and food assistance from others and the government (Pasira and Rosada, 2018).

Meanwhile, according to (Emtamoile, Sahusilawane and Kaplale, 2016) accessibility is divided into three with slight differences, namely:

1. **Direct access:** this is a way for a household to get food available in the land or garden so that when the household needs food, it can directly take it to the garden. Direct access to gardens or land can also be very helpful if a household is in a state of food insecurity because usually households already have food reserves in the barn if needed at any time.
2. **Indirect access:** this is a way for households to get food with various varieties to meet needs by making transactions or buying because money is needed to get something they need.
3. **Social access:** this is a way for households to get the food they need through social support, such as assistance from relatives, relatives, neighbors, and friends.

2.4. Food Security Strategy

The food security strategy in the Quadruple Helix states that academics, government, industry, and social groups are the main groups that have strength in development (Wirata, 2022). Adaptation is also one of the strategies that need to be pressured on an ongoing basis, where food management must be by the characteristics of a location, production, effectiveness, and efficient and the procurement of appropriate technology in supporting food security (Juwono and Subagiyo, 2018).

3. METHODS

This research uses a descriptive-explanatory qualitative method, which is a study that aims to understand and interpret what happens behind a symptom, as well as build a new theory of the occurrence of symptoms (Nursapia, 2020). According to (Hardani *et al.*, 2020) explanatory qualitative is a study that has the objective of finding an explanation of why an event or a symptom occurs.

The data used are primary data, with primary data collection using techniques: questionnaires, interviews, and document analysis. The locations of this study are Malang Regency, Kediri Regency, Nganjuk Regency, Tulungagung Regency, and Trenggalek Regency, East Java Province. The population in the study was peasant households. Sampling is carried out by random sampling.

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4. RESULT AND DISCUSSION

This study involved several samples of respondents who were taken randomly in several market samples found in the districts in which the study was located. In the market in Kediri Regency, several samples of respondents responded to food prices.

Table 1. Commodities of Kediri Regency

No.	Komoditi	Harga	No.	Komoditi	Harga
1.	Cooking oil	Rp. 19.666/ltr	9.	Flour	Rp. 6.833/kg
2.	Soybean	Rp. 14.333/kg	10.	Chili	Rp. 76.110/kg
3.	Egg	Rp. 26.333/kg	11.	Sugar	Rp. 12.666/kg
4.	Rice	Rp. 10.666/kg	12.	Corn	Rp. 6.166/kg
5.	Chicken meat	Rp. 37.333/kg	13.	Tomato	Rp. 5.333/kg
6.	Beef	Rp. 106.666/kg	14.	Green beans	Rp. 9.333/kg
7.	Onion	Rp. 56.666/kg	15.	Cauliflower	Rp. 8.000/kg
8.	Garlic	Rp. 19.333/kg			

Source: SISKAPERBAPO (processed)

Dominated by an expensive response in several commodities such as soybeans, chicken eggs, chicken meat, shallots, garlic, and followed by chilies. Kediri Regency, which is famous for its tofu products, the soaring soybean prices made tofu and tempeh producers shocked amid the increase in cooking oil prices. The soaring price of soybeans in Kediri Regency in 2021 is due to the implementation of PPKM levels in each region, in addition to that, it is also because the price of imported soybeans is also high.

Table 2. Commodities of Tulungagung Regency

No.	Komoditi	Harga	No.	Komoditi	Harga
1.	Cooking oil	Rp. 22.000/liter	9.	Flour	Rp. 10.933/kg
2.	Soybean	Rp. 12.500/kg	10.	Chili	Rp. 74.332/kg
3.	Egg	Rp. 27.000/kg	11.	Sugar	Rp. 13.500/kg
4.	Rice	Rp. 10.666/kg	12.	Corn	Rp. 6.500/kg
5.	Chicken meat	Rp. 37.333/kg	13.	Cassava	Rp. 3.666/kg
6.	Beef	Rp. 115.000/kg	14.	Peanut	Rp. 27.666/kg
7.	Onion	Rp. 65.000/kg	15.	Green Beans	Rp. 21.666/kg
8.	Garlic	Rp. 20.000/kg			

Source: SISKAPERBAPO (processed)

For respondents from Tulungagung Regency, some of the following food commodities are quite expensive in recent months soybeans, chicken eggs, chicken meat, beef, shallots, garlic, and chilies. In Tulungagung Regency, broilers are the largest producer in 2021, but with the large demand during the approach to the month of Ramadan and for tasyakuran/slametan events, the price of chicken meat has soared. In addition to the large demand for chicken meat in Tulungagung Regency for major events, the high cost of feed for chicken livestock also contributes to the soaring price of chicken meat.

Table 3. Commodities of Nganjuk Regency

No.	Komoditi	Harga	No.	Komoditi	Harga
1.	Cooking oil	Rp. 23.666/liter	9.	Flour	Rp. 11.000/kg
2.	Soybean	Rp. 12.166/kg	10.	Chili	Rp. 69.999/kg
3.	Egg	Rp. 26.500/kg	11.	Sugar	Rp. 13.333/kg
4.	Rice	Rp. 11.166/kg	12.	Corn	Rp. 6.333/kg
5.	Chicken meat	Rp. 36.333/kg	13.	Tomato	Rp. 4.000/kg
6.	Beef	Rp. 120.000/kg	14.	Cassava	Rp. 3.833/kg
7.	Onion	Rp. 55.000/kg	15.	Peanut	Rp. 28.333/kg
8.	Garlic	Rp. 18.000/kg	16.	Green beans	Rp. 17.833/kg

Source: SISKAPERBAPO (processed)

Respondents in Nganjuk Regency commodities of cooking oil are quite expensive, soybeans, chicken eggs, chicken meat, beef, shallots, and chilies. One of the food commodities in Nganjuk Regency with a high level of production is shallots, although the

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amount produced by Nganjuk Regency has increased in price due to a natural disaster in the form of floods in 2021 which failed shallot farmers to harvest. If usually, the farmers can sell their crops to other regions, but this time they can only be sold to their own regions.

Table 4. Commodities of Trenggalek Regency

No.	Komoditi	Harga	No.	Komoditi	Harga
1	Cooking oil	Rp. 21.500/liter	9.	Flour	Rp. 12.000/kg
2.	Soybean	Rp. 12.000/kg	10.	Chili	Rp. 71.166/kg
3.	Egg	Rp. 26.750/kg	11.	Sugar	Rp. 13.000/kg
4.	Rice	Rp. 11.750/kg	12.	Corn	Rp. 6.500/kg
5.	Chicken meat	Rp. 36.000/kg	13.	Potato	Rp. 12.500/kg
6.	Beef	Rp. 120.000/kg	14.	Tomato	Rp. 6.000/kg
7.	Onion	Rp. 60.000/kg	15.	Carrot	Rp. 10.000/kg
8.	Garlic	Rp. 19.500/kg			

Source: SISKAPERBAPO (processed)

Meanwhile, respondents responded in Trenggalek Regency, staples that were considered expensive included soybeans, chicken eggs, chicken meat, beef, shallots, garlic, and chilies. One of the foodstuffs in the form of chicken eggs experienced an increase in prices in Trenggalek Regency in 2021, this was caused by the crawling of the restaurant industry after the Covid-19 pandemic. Therefore, the large demand for chicken eggs has resulted in a significant price increase, it is also caused because during the Covid-19 pandemic, laying hen farmers reduced the number of their livestock to minimize losses.

Table 5. Commodities of Malang Regency

No.	Komoditi	Harga	No.	Komoditi	Harga
1	Cooking oil	Rp. 16.000/ltr	9.	Flour	Rp. 11.500/kg
2.	Soybean	Rp. 12.500/kg	10.	Chili	Rp. 58.000/kg
3.	Egg	Rp. 27.000/kg	11.	Sugar	Rp. 12.500/kg
4.	Rice	Rp. 9.500/kg	12.	Corn	Rp. 8.000/kg
5.	Chicken meat	Rp. 33.000/kg	13.	Peanut	Rp. 28.000/kg
6.	Beef	Rp. 117.000/kg	14.	Green beans	Rp. 24.000/kg
7.	Onion	Rp. 30.000/kg	15.	Potato	Rp. 15.000/kg
8.	Garlic	Rp. 20.000/kg	16.	Carrot	Rp. 10.000/kg

Source: SIHARKEPO Kab. Malang (processed)

Respondents in Malang Regency responded that soybeans, chicken eggs, beef, corn, green beans, and potatoes are food commodities whose prices are still quite expensive. As a result of the price of soybeans in Malang Regency rising, it greatly affects tempeh craftsmen and tempeh chips craftsmen, in addition to increasing the price per pack, several other craftsmen are doing different things while maintaining the price, namely reducing the size or volume of tempeh and tempeh chips. Meanwhile, the price of eggs in Malang Regency continues to skyrocket, caused by the high price of laying hen feed and the goodness of fuel so operational costs also increase.

5. CONCLUSION

Broadly speaking, economic access is the main problem, where many people still have difficulty accessing food needs, because the price of staples continues to increase in prices. From natural disasters to fuel increases that can cause operational costs, prices, and also a scarcity of staples. Of the several staples in the table presented, 6 to 7 staples are still considered expensive by the public. 6 to 7 staples, which are called expensive, are the main staples for each household. Physical access or direct access, is not so difficult for the community, because according to them, going to markets, stalls, or traveling staples is very easy because it is supported by the public transportation facilities available in each district.

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