

Development of Food Security Policy Implementation in Indonesia

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Abstract

This study aims to determine the progress and progress of policies and strategies implemented in terms of food security in Indonesia in the last ten years. For this reason, a literature review is carried out related to the progress and achievements of policies and programs implemented by the state and its institutions to meet food security objectives. This is proven by the government's extraordinary efforts to ensure the availability, access, and consumption of food for the population. However, there are pending issues in the specification of guidelines and directives that allow for concrete and systematic action; In addition, the incorporation of development actors and agents in the preparation and implementation of programs and projects must be coordinated more broadly to realize and ensure results, sustainability, and improvement of the quality of life of the Indonesian population.

Keywords: Policy, Food Security, Population, Indonesia.

A. INTRODUCTION

Food security is one of the crucial issues in a country's development, particularly in developing countries, because it serves a dual purpose: it is both one of the primary goals of development and one of the primary instruments (intermediate goals) of economic development (Maxwell, 1996; Koch, 2011; Pawlak & Kolodziejczak, 2020). The first role is a function of food security as a prerequisite for ensuring access to food for all citizens of the country in sufficient quantity and quality for a living, healthy and productive existence. Access to "sufficient" food is a human right that the state must always guarantee and the community (FAO, 2001; Damman et al., 2008; Beuchelt & Virchow, 2012). Indonesia has recognized this, as stated in the Food Security Law No. 18 of 2012. The second role is the implication of the function of food security as a prerequisite for the development of creative and productive human resources, which are the main determinants of innovation in science, technology and human resources. Productive work and the function of food security as one of the determinants of a stable and conducive economic environment for development (Dorward, 2013; Welteji et al., 2017; Ogunniyi et al., 2021). Every country always tries to build a solid food security system.

The global demand for food is rising in tandem with the global population. Population growth is not the sole factor impeding the

attainment of national food security. For the Indonesian people to become a food-independent nation, the conversion of agricultural land into residential and industrial land poses a threat and a challenge (Adebayo & Ojo, 2012; Ittyerah, 2013; Smyth et al., 2015). After 1960, the increase in world population reached a peak level. This is evidenced by the fact that the population in the 2000s reached around 6 billion people; this population growth will inevitably lead to numerous challenges, including food insecurity. According to two American academics, the global population will confront a food crisis by the year 2100 (Dow, 1975; Pimental, 1976; Ritson, 2020).

In the mid-70s, the concept of food security emerged as a proposal for food crises that occurred in a global context and thereby contributed to solving problems and reducing the adverse effects of these crises (Aldrich & Whetten, 1981; FAO, 2001; Maxwell, 1996), in the first implementation focused on food production and availability. Furthermore, "in the 1980s and 1990s, there were two milestones that influenced the rethinking of the rights approach concerning the flood situation in the world: 1) The results of the Green Revolution and the consequences of the African famine; and 2) the 1996 World Food Summit (WFS) (Ecker & Breisinger, 2008), in which a commitment was made to halve the number of people who are undernourished by 2015 (Merino, 2020). Thus, the right to adequate

food and the fundamental right to be protected from hunger was reaffirmed at the 1996 World Food Summit (FAO, 2012). Despite efforts, recent estimates suggest that around 795 million people worldwide, equivalent to more than one in nine, have been malnourished 1 in the last two years (FAO, 2015). Thus, hunger and poverty are related, considering that this group cannot access food (Maluf, 2009; Wittman, 2011), and consequently, they have a severe effect on malnutrition (Rogan, 2018; Sharma, 2019).

The relationship between poverty and food security lies in the fact that people or families with irregular incomes do not have sufficient resources to access food (León et al., 2004; Calero, 2011; FAO, 2012) that allows them to enjoy good health (Salvia et al., 2012). In line with that, Sen (2000) suggests that poverty-prone groups have problems in access to food and consumption; they must also focus on economic law, namely guarantees from the government and society. Development agent, economic income that allows residents to access basic food. Therefore, food security must be a universal right to realize social welfare (FAO, 2015).

In this context, in the last two decades, in developing countries, there have been essential efforts to make policies and strategies for poverty alleviation based on food security (Ahmed & Lorica, 2002; Meyer, 2010), which has become one of the axes of work and priorities that accompany the process of reducing poverty. Poverty and the pursuit of economic and social well-being (Ellis et al., 2003) ensure safe and healthy food for the population (FAO, 2015). This intention is manifested in the approval of various food security and hunger eradication plans, efforts that seek to ensure the availability, access and consumption of food for the population (Pingali et al., 2005; Richardson, 2010). Food security as a contribution to sustainable development, discussed at the UN General Assembly in September 2012 in Rio de Janeiro, highlighted the importance of joint efforts between governments, civil society and the productive sector.

The essence of food security policy is characterized by the active involvement of the government in directing, stimulating and encouraging related elements to form a solid and sustainable national food security system (Von Braun, 1992; Flood, 2010). The food

security system is an integral part of the overall poverty alleviation system. Therefore, food security policies are an integral part of national development policies, so their formulation must also be integrated and in harmony with macro social policies. At the very least, the analysis of food security policies is carried out in the context of the objective conditions of the welfare of the national people. Food security policies should be an integral part of poverty alleviation policies and promote economic growth (Simatupang, 2007). Coherence between policies is the key to avoiding the policy dilemmas that characterize standard food policy instruments. For this reason, it is necessary to formulate a basic framework for national food security policies (McDonnel & Elmore, 1987).

In the case of Indonesia, food security policies are promoted to reduce rates of chronic malnutrition and access to healthy food across the region, in addition to fighting poverty. Within the framework of the Indonesian Constitution, law and politics, they place food security and sovereignty as a fundamental axis to achieve a better standard of living quality; The Constitution of the Republic and the National Plan for the Development of the Good Life guide their objective in establishing programs and projects that ensure food security for the Indonesian population, are also strategic objectives in fighting hunger and poverty. Therefore, this research aims to find out the progress and progress of implementing policies and strategies produced in the field of food security in Indonesia.

B. METHOD

The methodology considers the descriptive and analytical analysis of the object of research; for this reason, a study of food security policies and strategies has been carried out in the last ten years through a documentary study. Their progress is contrasted with periodic reports issued in this context; On the other hand, as a supporting component, consultations and revisions of scientific works and documents were carried out that provided criteria and information related to the actions of local agents and actors tasked with meeting the objectives in terms of food security.

Likewise, reports from the Central Bureau of Statistics and related ministries are critical to approaching the problem of poverty, given its link and relationship with food

security. Access to budget information from the Ministry of Finance and projects implemented in the sector allows knowing the scope and efforts made by the State of Indonesia to ensure food for the Indonesian population. The analysis period covers the last ten years since the efforts and the birth of policies and strategies in food security occurred.

C. RESULT AND DISCUSSION

1. Indonesia's Food Security Condition

In 2019, Indonesia was classified as an upper-middle-income country, with a PPNB of \$4,050 USD (World Bank, 2020a). In the last decade, Indonesia's GDP grew by an average of 5% every year. According to data from Central Bureau of Statistics (2010; 2020e), Indonesia has reduced poverty from 14.1% in 2009 to 9.2% in 2019 (Central Bureau of Statistics, 2010; 2020e). According to (Central Bureau of Statistics, 2020b), The rise of the middle class has been aided by increased economic prosperity. Nearly one in five Indonesians (52 million people) lived in poverty in 2017, according to World Bank estimates. International Monetary Fund. Human progress in Indonesia has also been notable. An improvement in Indonesia's Human Development Index went from 0.67 in 2010 to 0.71 in 2018 (United Nations Development Programme, 2019).

In tandem with these economic improvements, Indonesia has achieved significant strides in enhancing its food and nutrition security. In recent years, access to food has increased and the rate of malnutrition has reduced. Nevertheless, the nutritional quality of the Indonesian population is still poor by international standards, and regional disparities persist. Many residents continue to be at risk for hunger and malnutrition. According to the 2018 Global Nutrition Report, Indonesia is one of three nations where wasting is prevalent among youngsters (Development Initiatives, 2018). According to the 2018 Basic Health Research, 10.2% of Indonesian children under the age of five suffer from wasting and 30.8% are stunted (MOH, 2019). Gianyar, Bali Province, had the lowest frequency of stunting (12 percent), whereas Nias, North Sumatra Province, had the greatest prevalence (61 percent) (Central Bureau of Statistics, 2019e). In addition, nutritional deficiencies and rates of overweight and obesity are on the rise in Indonesia. Thus, Indonesia is burdened by three

forms of malnutrition: undernutrition, overnutrition, and micronutrient deficiency.

Food production in Indonesia has been boosted in recent years. Producing 33 million tonnes of maize per year was roughly a two-fold increase in the period 2013-2019, although sugar output fell and soybean and beef output remained unchanged. It is difficult to estimate rice production trends from 2013 to 2019 due of a BPS change in the calculation method employed in 2018. 5 However, it is possible to examine the development of rice production across two time periods: 2013–2017 and 2018–2019. As of 2013, the country's rice output was 41.43 million tons, rising to 47.17 million tons in 2017 and then decreasing to 31.31 million tons in 2019. Following this upward trend, non-grain rice productivity climbed from 5 tons/ha in 2010 to 5.34 tons/ha by 2015 before declining to 5.2 tons/ha by 2018 and 5.1 tons/ha by 2019 (Central Bureau of Statistics, 2020d).

An agricultural ministry defines a country as self-sufficient when its import dependence ratio does not exceed 10% of its domestic consumption. Indonesia can be said to be self-sufficient in rice production based on these criteria. Imports accounted for only 2.3% of domestic consumption from 2013 and 2019, except in 2018, when the dependency on imported rice was at an all-time high of 6.2%. Between 2013 and 2019, Indonesia fought with many other importing countries for the limited supply of international rice market grain due to Indonesia's large population and society's need on rice as a staple diet.

The relatively high reliance on rice imports to meet domestic demand creates considerable issues during the COVID-19 epidemic. According to BPS, food output in Indonesia dropped by 10% in the first quarter of 2020, based on an inter-year comparison. Because of the previous year's protracted dry season, the rice harvest period was pushed back to the second quarter of 2020. This year, some sections of Indonesia may see a drier dry season than typical, potentially hurting rice production in the second planting season.

2. Food Security Policy Framework in Indonesia

It is argued that the state must use natural resources to ensure that adequate, safe, high-quality, and nutrient-balanced food is available, affordable, and available to all Indonesians, regardless of where they live, at all

times on the country's whole territory. Institutions and regional customs and traditions. It was also underlined that Indonesia's natural resources and a wide variety of food sources could meet the country's food requirements independently and sovereignly.

The right of the state and nation to independently adopt food policies that guarantee people's Right to Food and offer communities the right to determine a food system based on local food power is defined in Article 1 point 2 of this legislation.

It is also stated in the General Elucidation of the Law, that the food system created by this regulation provides protection to people who produce and consume food alike. Sovereignty over food is one of the foundations of good governance since it ensures a society's basic human needs are met in a way that's equitable and long lasting. As a result, the state is free to set its own food policy, which cannot be influenced by any party, and food business players are free to run their businesses in accordance with the sources. Its sway is undeniable. Food consumption must be prioritized by employing local resources and understanding to the fullest extent possible.

Based on the description of the considerations, the body and the general explanation of this law, there are directions for food regulation, namely for the sufficiency of food for the community to the individual level with governance regulated by the government in a sovereign and independent manner. However, in addition to the state's independence as a policymaker, food business actors are given the freedom to determine and carry out their business following their available resources. The direction of regulation that gives "freedom" to food business actors can have a positive meaning. Still, it can also have negative consequences if this freedom is misinterpreted for the interests of particular groups/parties.

The legal politics of food sovereignty in the Law on Food, as the primary law that is evaluated and analyzed, needs to be juxtaposed with the legal politics contained in other related laws to assess whether they support each other. To measure whether the legal politics of other relevant laws support food security or not, the Working Group determines several criteria taken from the keywords for the direction of food sovereignty contained in the Considering Considerations and General Explanations of

Law Number 18 of 2012 concerning food, which is legal politics. of food regulation itself. Some of these criteria are:

- a. The obligation of the state to ensure the availability, affordability, and fulfillment of appropriate, safe, quality, and nutritionally balanced food consumption to persons at both the national and regional levels;
- b. Prioritizing home output through making the best use of local resources, institutions, and knowledge;
- c. The right of the state and nation to choose food policy autonomously, without being dictated to by any party;
- d. Ensure that people have the right to food;
- e. Allow the community to select the food system based on the potential of local resources;
- f. Benefits should be provided in a fair, equitable, and long-term way based on food sovereignty, food independence, and food security;
- g. Provide safeguards for individuals who produce and consume food;
- h. Food business actors are free to determine and carry out their operations in accordance with their resources.

3. Strategies and actions to realize Food Security in Indonesia

The macroeconomic policies and global development strategies implemented in Indonesia ensure adequate investment from the public sector in agriculture and food production, which is necessary for food security. On the other hand, the agricultural policy seeks to expand and diversify food production and create an adequate and stable food supply. As part of its commitment to the challenge in terms of food security, the state includes this element in the Laws and its various derivative regulations on Food Sovereignty, the purpose of which is to prepare proposals on land use, agro diversity, agro-industry development, as well as the formulation and implementation of policies, plans, programs, and projects in the field of food security and sovereignty. Exclusive powers are transferred to the provincial and district/city governments to operationalize these strategies and plans. They incorporate these concerns and objectives into the

Territorial Planning and Governance, guiding their interventions in promoting agricultural and productive activities at the regional level.

Various actions taken by the public sector to reduce consumption poverty and the existing gap between rural and urban areas are crucial to getting the best results. According to Jarosz (2014), four policy areas directly related to food security are defined. Policy areas identified: i) small-scale agriculture and rural development; ii) social and food protection; iii) health and nutrition assistance; and iv) education and training in food and nutrition. In this area, public actions related to direct support for agricultural production (credit, technology transfer, training, investment subsidies, among others) can be identified; demand support consisting of government purchases of smallholder produce distributed to public programs, and support for generating non-farm income through job placements and small businesses.

The participation of actors (local community organizations, community leaders, residents) is very decisive in achieving goals. However, there is a perceived lack of commitment and greater involvement of rural residents in food security projects. In this way, governments, international cooperation, the private sector, and associations of producing communities and populations strengthen various development programs and projects aimed at food security and sovereignty based on participation, solidarity, and inclusion principles. Still, it is also essential that actors can define specific lines of action in specific sectors and target populations so that the sum of outcomes produces a more significant impact.

To achieve these goals, the Ministry of Agriculture implements the Special Effort Program for Rice, Corn, and Soybeans, also known as *Ursus Pajale*, to increase rice, corn, and soybean production, and the Special Efforts for Pregnant Cows Program, also known as *Upsus Siwab*, to increase livestock production. (Asian Development Bank, 2019). *Upsus Pajale* supplies farmers with subsidies for fertilizers, seeds, tractors, and other agricultural machinery in an effort to enhance agricultural output. The average producer support ratio¹³ grew dramatically from roughly 17 percent of agricultural revenue in 2009–2010 to 29 percent in 2017 as a result of these subsidies (Hamilton-Hart, 2019). As for *Upsus Siwab*,

the Ministry of Agriculture is promoting artificial insemination, strengthening the development of cattle producing regions, expanding the capacity of cattle breeding centers, and giving cattle seeds to farmers in order to improve cow health and production standards.

Indonesia has also spent considerably in the construction of agricultural infrastructure and the expansion of agricultural land. By the end of 2019, Indonesia will have created 1 million hectares of new rice fields, constructed 65 dams, and expanded its irrigation network by 115,000 hectares of pond irrigation, according to the Ministry of Public Works' strategic plan (Bappenas, 2014). By the close of 2018, 43 dams had been built. However, the program to create agricultural land was not very effective. In 2018, only one-fifth (or 212,000 ha) of the anticipated additional rice fields were effectively developed. The government reports transforming over 900,000 hectares of idle land, largely swamps, into agricultural land, principally for rice crops. This plantation in West Papua, which began in 2010 but was put on hold due to local opposition and difficulties securing land, was also given the green light by the government. In addition to Papua, the private sector has assisted in the establishment of substantial commercial rice fields in Kalimantan.

A slew of roadblocks stands in the way of increasing domestic food production. First and foremost, land availability is still a major concern. Irrigated wetlands declined from 4.8 million hectares in 2013 to 4.7 million hectares in 2017, while total agricultural land decreased from 39.2 million hectares to 37.1 million hectares during the same period, according to BPS (Ministry of Agriculture, 2018: 7). The agricultural land expansion program cannot increase the area of arable land since the rate of land conversion from agricultural to non-agricultural land continues to be greater than the pace of establishing new agricultural land. Another hurdle to food production is a decrease in farmers and an aging farming population, as discussed in the previous section (section 2.3.3). Indonesia's population increased by 1.3 percent every year between 2000 and 2015. (Asian Development Bank, 2019). This development raises food production concerns unless farmers' productivity improves significantly. In addition, climate change can have a negative impact on food production in

irrigated and rainfed farms, as discussed in section 2.3.1.

4. Implementation of Food Security Policy in Indonesia

The central issue of food policy is ensuring food entitlement for every family (individual) through market mediated based on self-reliance. Food acquisition is determined by availability (including the family's production), price, and family income. Logically, this can be realized by: (1) alleviating poverty (earning a minimum income sufficient to purchase food needs/poverty limit); and (2) stabilization of food availability and prices.

The micro approach, namely direct intervention within and within the family, such as the program to use yard land as a family food barn, and the development of micro-enterprises for poor homemakers, may be very effective. Still, its implementation is complicated in terms of targeting, administrative burden and budgetary burden. The micro approach is practically impossible to implement on a large scale when food insecurity in families is very high (reaching tens of millions of families) as in Indonesia. The case of the problematic cash transfer program to compensate for rising fuel prices is clear evidence of the incompatibility of the micro approach.

A more operational approach is macro-micro integration. This approach integrates

household food security with macroeconomic growth and the national food market. This view is based on the following ideas: (1) Family income, especially in the lowest (poor) group, is increased through economic growth. This means that the quality of economic growth must be improved so that it is more pro-poor growth; (2) The food market is spatially and vertically integrated so that the so-called national food market is an aggregate of micro markets at the community level; (3) Agricultural and rural development are the driving axis for the growth of the pro-poor population as well as the anchor for food market stability. Thus, growth, poverty alleviation and stabilization of the food market can synergize. On the one hand, most of the poor and food-insecure people live in rural areas and rely on the agricultural sector as a source of income. Growth driven by the development of the agricultural and rural sectors must be pro-poor. On the other hand, since the food sub-sector dominates the agricultural sector, it is necessary to stabilize the food market, further strengthening food security and encouraging economic growth.

The synergistic relationship between economic growth, poverty alleviation, food market stability and food security with the driving axis of agricultural and rural development propelled pro-poor growth mediated food security can be illustrated in Figure 1.

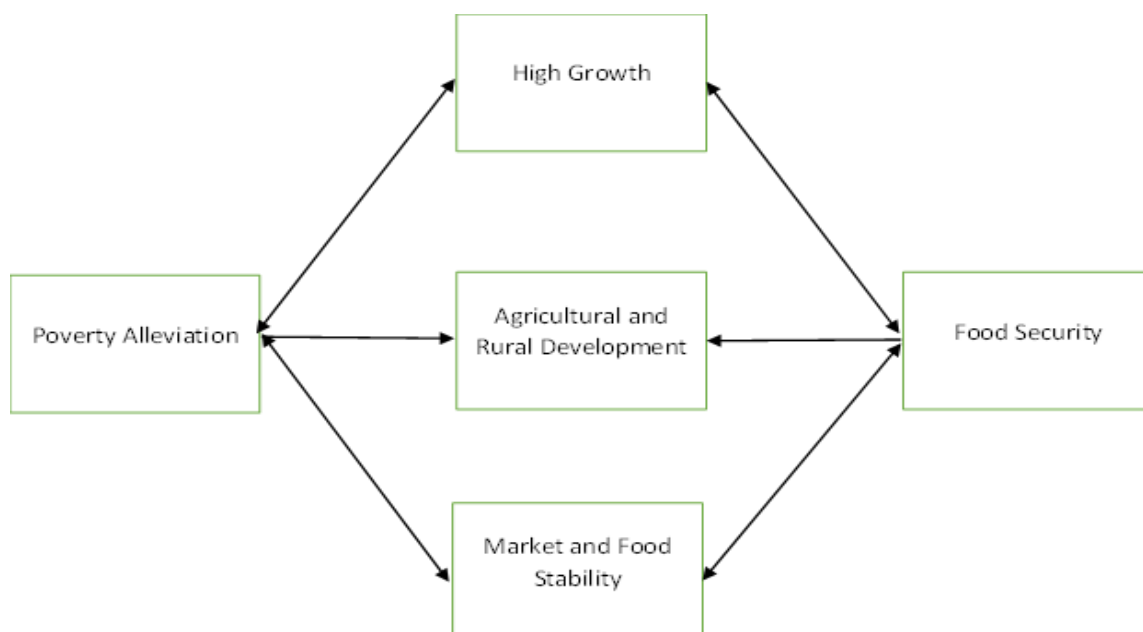


Figure 1 Schematic Relation of Food Security Strategy Mediated by Pro-Poor Growth with Agricultural and Rural Development Axis

The strategy above emphasizes that food security policies are an integral-synergistic part of achieving high growth and reducing poverty. In this way, policy dilemmas that characterize general food security policies can be avoided. This strategy demands the ability to revitalize agriculture and rural areas. This strategy is consistent with implementing the Agriculture, Fisheries and Forestry Revitalization Program (RPPK), which is currently being launched. Unfortunately, until now, there are still no visible signs of the revitalization of agriculture and rural areas.

The current government policy, which seems to emphasize the provision of price incentives in the form of input subsidies and price support, is not an effective, efficient and sustainable policy to encourage the growth of the agricultural sector, let alone spur rural development. The key to spurring growth in the agricultural and rural sectors is increasing production capacity and productivity through investment, technological and institutional innovation, and infrastructure improvements. Strategic policies deemed appropriate for agricultural revitalization in the context of strengthening food security are (1) Liberalization of the innovation system by facilitating and facilitating the participation of private research institutions and loosening technology imports; (2) Providing incentives and creating an agricultural and rural investment climate, especially for new land clearing and non-agricultural businesses in rural areas; (3) Development of agricultural and rural infrastructure, especially irrigation, transportation, telecommunications, rural markets and rural electricity; (4) Institutional arrangement, including supply chain organization and governance; (5) Encouraging diversification to high-value products through neutralization of bias policies for low-value products/commodities (including rice); (6) Stabilization of food product market by integrating domestic and international markets. Especially for staple foods (rice, corn, soybeans, sugar), the recommended benchmark is import tolerance of up to 5 per cent and the domestic price range following the import parity price trend of plus-minus 25 per cent.

The food security safety net is built in a decentralized manner. Safety nets at the community level are built through the participation of local communities and are site-specific, with the district government as the

facilitator. District governments are responsible for food security at the village and district levels. The provincial government is responsible for building a food security safety net across districts. Meanwhile, the central government is responsible for constructing cross-provincial safety nets. In essence, the food security safety net is built hierarchically based on the levels of government administration.

Early detection, communication and information systems are also built hierarchically. Early detection is the responsibility of local governments by utilizing health and agricultural institutions that are directly related to the community, such as Puskesmas/Posyandu, Agricultural Information and Counseling Centers/PPL, hospitals/clinics, branches of the agricultural service, and so on. The information system is built hierarchically from the sub-district to the relevant departments. The regional press is empowered to function as a disseminator for extension workers and advocate for food security.

D. CONCLUSION

Food security means that there is sufficient availability of safe and non-hazardous food for the population under all circumstances, which ensures a healthy life. This phenomenon has global, strategic, ecological and public impacts. Thus, Indonesia contemplates a principle of food security, encouraging and promoting a policy system to improve the quality of life and adequate use of natural resources, starting by promoting increased agricultural production and implementing the community supply system. As evidenced in the study, there are State policies to promote and ensure food security in Indonesia, which accompany the same legal provisions that provide a broad framework that enables the development of programs and projects in this area. In line with that, the strategy implemented so far, the critical participation of international cooperation organizations, the private sector and public institutions is still in the exploratory stage. It is possible that a lack of coordination between various policies and programs is not the only reason that is preventing the development of a more diverse food system from leading to a healthier diet. Another element that contributes to the problem is that there is insufficient monitoring and assessment of the program,

which prevents the collection of useful data that could be used to enhance it. This could explain why the government has responded somewhat slowly to the new issues that Indonesia is facing in terms of enhancing food security.

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