Siber International Journal of Advanced Law (SIJAL)
E-ISSN : 2987-5595
P-ISSN : 2987-5609
https://review.e-siber.org/SIJAL siberpublisher.info@gmail.com +62 812-1046-7572
DOI: https://doi.org/10.38035/jgpp.v3i2.
https://creativecommons.org/licenses/by/4.0/

The Role of Agriculture and Plantations in Achieving National Food Sovereignty

Adaobi Jennifer Iloakasia[1], Wahyu kurniadi[2]
[1]Department of Educational Psychology Guidance and Counselling, Nwafor Orizu College of Education, Nsugbe Anambra State, Nigeria jenniferadaobiiloakasia@gmail.com
[2]Mahasiswa Fakultas Ekonomi Dan Bisnis (Alumni), Universitas Jambi, Indonesia, kurniadiwahyu1511@gmail.com

Corresponding Author: jenniferadaobiiloakasia@gmail.com[1]

Abstract: Agriculture and plantations play a strategic role in achieving national food sovereignty. As primary food providers, both sectors not only support food security but also improve farmers' welfare, strengthen the economy, and ensure environmental sustainability. Challenges such as globalization, climate change, and food price fluctuations demand appropriate innovations and policies to strengthen these sectors. This study aims to analyze the contribution of agriculture and plantations in realizing national food sovereignty, as well as to identify challenges and strategies that can be implemented to achieve this goal.

Keywords: Agriculture, Plantation, Food Sovereignty, Food Security, Development Strategy.

INTRODUCTION

Background

Agriculture and plantations have long been the backbone of the Indonesian economy. These two sectors not only serve as producers of staple foods but also provide employment for millions of rural communities. As an agrarian country, Indonesia has abundant natural resource potential, with fertile land spread across various regions, a favorable tropical climate, and high biodiversity. Given these conditions, Indonesia should be able to achieve national food sovereignty and not rely on food imports. However, in reality, Indonesia still faces serious challenges related to its dependence on imports of several food commodities, such as wheat, soybeans, sugar, and beef (Suryana, 2014). Food sovereignty is a crucial issue in national development. This concept encompasses not only food security but also emphasizes the nation's independence in determining food policies without foreign intervention. According to Law Number 18 of 2012 concerning Food, food sovereignty is defined as the right of the state and nation to independently determine food policies that guarantee the right to food for the people and grant communities the right to develop food systems based on the potential of local resources. Thus, agriculture and plantations play a crucial role in supporting the implementation of food sovereignty.

As globalization advances, Indonesia's agricultural and plantation sectors face multidimensional challenges, such as global market competition, climate change, land degradation, and low farmer productivity. For example, rice productivity in Indonesia remains relatively low compared to other countries like Vietnam or Thailand (Purwono, 2016). Yet, rice is a strategic commodity that determines national food security. Similarly, the plantation sector: although Indonesia is known as the world's largest palm oil producer, still faces sustainability issues and a reliance on exports of raw materials without added value (Syaukat, 2018). In the context of sustainable development, agriculture and plantations must be managed in a modern and innovative manner. The Industrial Revolution 4.0, with its digital technology, mechanization, and biotechnology, presents both opportunities and challenges for increasing agricultural productivity (Hadi, 2019). The application of appropriate technology can reduce reliance on traditional methods that have limited farmers' yields. Furthermore, government policies in the form of subsidies, stable prices, and rural infrastructure development are also important supporting factors in achieving food sovereignty. Based on this background, this study will discuss the role of agriculture and plantations in realizing national food sovereignty, the challenges faced, and strategies that can be implemented to strengthen this sector.

Research Objectives

The objectives of this research are as follows:

1. To analyze the contribution of the agriculture and plantation sectors to national food sovereignty.
2. To identify the various challenges faced by agriculture and plantations in achieving food sovereignty.
3. To develop strategies and policy recommendations to strengthen the role of agriculture and plantations as pillars of national food sovereignty.
4. Supporting Theories

a) Food Sovereignty Theory
Food sovereignty was first introduced by the international peasant movement La Via Campesina in 1996 as a concept emphasizing the rights of nations and farmers to determine their own food systems (Patel, 2009). Unlike the concept of food security, which focuses more on food availability, food sovereignty encompasses political, economic, social, and cultural dimensions in food management. Thus, food sovereignty requires the state to protect local food production, provide land access for smallholder farmers, and reduce dependence on imports.

b) Agricultural Development Theory
Agricultural development is an integral part of a country's economic development. According to Mosher (1966), there are two basic requirements for agricultural development: the existence of markets for agricultural products and the availability of appropriate technology. In the Indonesian context, this means the agricultural and plantation sectors must have clear market access and be supported by technological innovation to increase productivity.

c) Food Security Theory
The concept of food security, according to the FAO (2008), encompasses four main pillars: food availability, access, utilization, and stability. In relation to food sovereignty, agriculture and plantations play a role in providing sufficient food supplies, maintaining public access to food, and ensuring price and supply stability.

d) Sustainable Development Theory
According to the Brundtland Report (1987), sustainable development is development that meets the needs of the present generation without compromising the needs of future generations. In the context of agriculture and plantations, sustainable development means managing natural resources wisely, preserving the environment, and reducing ecosystem damage caused by food production activities (Dewi, 2015).

METHOD

This research uses a qualitative descriptive approach to analyze the role of the agricultural and plantation sectors in realizing national food sovereignty in Indonesia. A qualitative approach was chosen because it allows for in-depth information on real-world conditions, involving various perspectives from farmers, business actors, and government policies (Creswell, 2014). This method emphasizes not only numerical data but also interpretations of social, economic, and political phenomena that influence food security and sovereignty. Data collection was conducted through:

Literature Review

Data were obtained from scientific literature, books, journals, government reports, and data from the Central Statistics Agency (BPS), the Ministry of Agriculture, and the FAO regarding food production, distribution, and consumption in Indonesia.

Secondary Data Analysis

Secondary data, including rice production figures, the contribution of plantations (palm oil, rubber, coffee, and cocoa) to GDP, and food import levels, were processed using comparative descriptive analysis.

Analytical Approach

The analysis was conducted by combining theories of food sovereignty, food security, agricultural development, and sustainable development to explain the phenomena.

RESULTS AND DISCUSSION

1. Agriculture's Contribution to National Food Sovereignty

The agricultural sector remains the mainstay of national food security. Statistics Indonesia (BPS) data (2023) shows that national rice production reached 54.75 million tons of dry milled rice. This figure is sufficient to meet domestic rice demand, although distribution still faces challenges. Indonesia still has to import several strategic commodities, such as soybeans (2.2 million tons in 2022) and sugar (4.2 million tons in 2022) (BPS, 2023). Agriculture's contribution to food sovereignty extends not only to food availability but also to employment. More than 29% of Indonesia's workforce still relies on the agricultural sector for its livelihood (World Bank, 2022). This means that agriculture plays a dual role: providing food and absorbing labor.

However, serious challenges remain, such as:

a. Low productivity compared to neighboring countries.
b. Increasing land conversion (around 100,000 hectares/year).
c. Dependence on imported seeds and fertilizers.

2. Contribution of Plantations to Food Sovereignty

The plantation sector in Indonesia is not only export-oriented but also supports local food security. Several commodities, such as palm oil, rubber, coffee, cocoa, and sugar cane, play a crucial role.

a. Palm Oil: Indonesia is the world's largest producer, contributing more than 55% of global supply. Although export-oriented, its derivatives (cooking oil, biodiesel) also support domestic demand (Syaukat, 2018).

b. Coffee & Cocoa: A leading export commodity while supporting food security through the added value of the processing industry.
c. Sugarcane: Highly strategic because it is related to sugar, which is still largely imported.

Unfortunately, plantations are often positioned more for export than for domestic needs. However, with a product diversification strategy, plantations can improve national food sovereignty.

3. Challenges in Agriculture and Plantations

Some of the main challenges facing Indonesia include:

a. Climate Change - Unpredictable planting seasons, floods, and droughts reduce productivity.
b. Land Conversion - Urban growth is eroding productive land.
c. Import Dependence - Strategic staple foods such as soybeans, sugar, and beef are still predominantly imported.
d. Low Technological Innovation - Most farmers still use traditional methods (Hadi, 2019).
e. Unequal Distribution - Surpluses in one region do not guarantee availability in other regions.

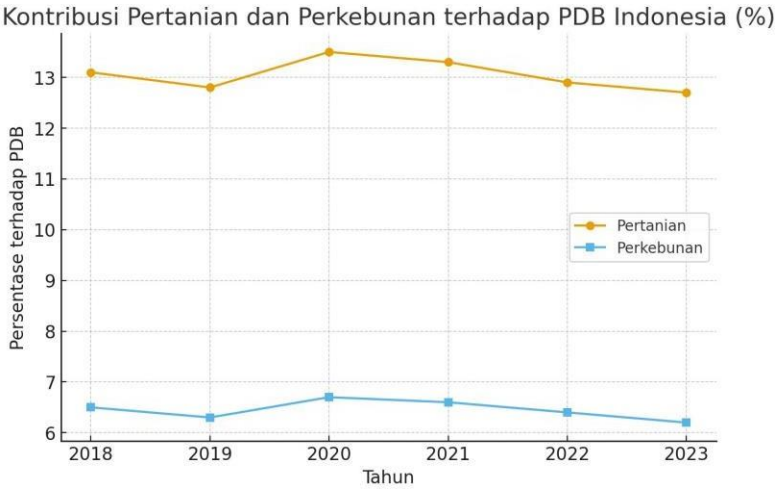
4. Strategies for Achieving Food Sovereignty

For the agriculture and plantation sectors to strengthen food sovereignty, the following strategies are required:

a. Increased Productivity: Through mechanization, digital farming, and biotechnology (Hadi, 2019).
b. Food Diversification: Reducing dependence on rice by developing sago, corn, and tubers.
c. Strengthening Local Farmers: Providing access to capital, technology, and markets.
d. Protective Policies: Restricting imports during peak harvests to protect prices for farmers (Suryana, 2014).
e. Infrastructure Development: Roads, irrigation, warehouses, and cold chains for food distribution.
f. Plantation Certification and Added Value: Sustainable palm oil products (ISPO), fermented cocoa, specialty coffee to increase global competitiveness.

5. Data and Graphs

To strengthen the analysis, the following graph shows the contribution of the agriculture and plantation sectors to GDP and dependence on food imports.





6. Discussion Analysis

The graph shows that the contribution of the agriculture and plantation sector to GDP is relatively stable, although it tends to decline with the diversification of the national economy. However, its existence remains strategic for food sovereignty. Meanwhile, dependence on food imports remains high for soybeans and sugar. This indicates that food sovereignty has not yet been fully achieved. Therefore, national policy must be directed towards revitalizing locally-based agriculture and plantations.

CONCLUSION

Agriculture and plantations play a strategic role in realizing national food sovereignty. They not only serve as staple food providers but also as pillars of the national economy, absorb labor, and drive rural development. However, achieving food sovereignty in Indonesia still faces complex challenges, ranging from low productivity, climate change, and high dependence on imports of strategic foods such as soybeans, sugar, and beef. Data shows that despite the relatively stable contribution of agriculture and plantations to GDP, Indonesia still struggles to reduce food imports, which threaten national independence. Therefore, strategies to increase productivity, diversify local food crops, strengthen the role of smallholder farmers, and build modern agricultural infrastructure are crucial steps that must be implemented immediately. With appropriate policy support, the use of technology, and support for local farmers, the agriculture and plantation sectors can form a strong foundation for realizing national food sovereignty that is sustainable, independent, and capable of facing global challenges.

REFERENCE

BPS. (2023). Statistik Pertanian Indonesia. Badan Pusat Statistik.

Anwar, K., Muspawi, M., Sakdiyah, S. I., & Ali, H. (2020). The Effect of Principal's Leadership Style on Teachers' Discipline. *Talent Development & Excellence*.

Suryana, A. (2014). Ketahanan Pangan dan Kedaulatan Pangan. IPB Press.

Ali, H., Susanto, P. C., & Saputra, F. (2024). Faktor-faktor yang mempengaruhi manajemen transportasi udara: Teknologi informasi, infrastruktur dan kompetensi sumber daya manusia. *Jurnal Siber Transportasi Dan Logistik*, *1*(4), 154-167.

Riyanto, S., Adila, L., & Ali, H. (2017). The Effect of Incentives And Job Enthusiasm To Productivity of Go-Jek Driver At PT. Go-Jek Indonesia. *Journal of Research in Business and Management*, *5*(1), 35-41.

Purwono, R. (2016). Produktivitas Padi di Indonesia. Jurnal Ekonomi Pertanian.

Hafat, S. E. D., & Ali, H. (2022). Literature review determination of work quality and work productivity: Analysis of commitment and work culture. *Dinasti International Journal of Management Science*, *3*(5), 877-887.

Syaukat, Y. (2018). Industri Perkebunan Kelapa Sawit di Indonesia. Jurnal Pembangunan.

Havidz, I. L. H., Aima, M. H., Ali, H., & Iqbal, M. K. (2018). Intention to adopt WeChat mobile payment innovation toward Indonesia citizenship based in China. *International Journal of Application or Innovation in Engineering & Management*, *7*(6), 105-117.

Hadi, S. (2019). Revolusi Industri 4.0 dalam Pertanian. Agritech Journal.

Dewi, I. (2015). Pembangunan Berkelanjutan dalam Sektor Pertanian. Jurnal Sosial Ekonomi Pertanian.

Patel, R. (2009). Food Sovereignty. Journal of Peasant Studies.

Mosher, A. T. (1966). Getting Agriculture Moving. New York: Agricultural Development Council.

FAO. (2008). Food Security Concepts and Framework. Rome: FAO.

Creswell, J. W. (2014). Research Design. California: Sage Publications.

World Bank. (2022). Indonesia Employment Statistics. World Bank Data

Brundtland Commission. (1987). Our Common Future. Oxford University Press.

Kementerian Pertanian RI. (2022). Laporan Tahunan Kementan.

OECD. (2021). Agricultural Policy Monitoring and Evaluation. OECD Publishing.

Anderson, K. (2016). Agricultural Policy Reform in Developing Countries. World Development.

Ploeg, J. D. van der. (2010). Food Sovereignty and Rural Development. Development Journal.

Gliessman, S. (2015). Agroecology: The Ecology of Sustainable Food Systems. CRC Press.

IFPRI. (2020). Global Food Policy Report. Washington DC: IFPRI.

Shiva, V. (2000). Stolen Harvest: The Hijacking of the Global Food Supply. South End Press.

Altieri, M. (2012). Agroecology, Food Security, and Resilience. Sustainability Journal.

Pretty, J. (2002). Agri-Culture: Reconnecting People, Land and Nature. Earthscan.

Pingali, P. (2012). Green Revolution and Food Security. PNAS.

Timmer, C. P. (2005). Food Security and Economic Growth. Asian Development Review.

Maxwell, S. (1996). Food Security: A Post-Modern Perspective. Food Policy Journal.

HLPE. (2020). Food Security and Nutrition: Building a Global Narrative. FAO.