

Legal Control of Sustainable Food: Agricultural Land Conversion to Support National Food Security in Indonesia

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ABSTRACT: The agricultural sector is a strategic sector that plays a vital role in the national economy and in sustaining the livelihoods of the population, particularly in ensuring domestic food security. However, along with rapid development and population growth, the existence of agricultural land has increasingly come under pressure due to the widespread conversion of productive farmland into residential areas to accommodate population expansion, as well as for industrial, commercial, and tourism purposes. This research examines the regulatory framework governing the control of sustainable agricultural land conversion and the government's strategies in managing the conversion of sustainable food agricultural land in order to support food security. This study employs a normative legal research method. The findings indicate that the control of sustainable food agricultural land conversion is regulated under Law Number 41 of 2009 on the Protection of Sustainable Food Agricultural Land and Government Regulation Number 1 of 2011 concerning the Designation and Conversion of Sustainable Food Agricultural Land. Furthermore, the government's strategies include the dissemination and socialization of regulations related to sustainable rice field areas to rural communities, aiming to prevent the conversion of agricultural land. In addition, the government implements incentive-based policies for farmers who continue to preserve productive agricultural land, as stipulated in Government Regulation Number 12 of 2012 on Incentives for the Protection of Sustainable Food Agricultural Land.

KEYWORDS: Control, Sustainable Land Use Change, Food Security

1. INTRODUCTION

Land is a divine gift to all living beings on earth and has a number of benefits that we need and in which we need to be aware. Land is an important and inseparable part of human life and it is important for both social and economic purposes (Lushombo, 2025). Land can also help the owners in their welfare and prosperity. It is also functional in nature as the common space in a particular area and is an area for agriculture and for basic human needs. Indonesia is an archipelagic country with a wealth of natural sights in the form of rice fields. Agricultural land, in particular rice fields, is a key agricultural area to cultivate for the production of basic food items (especially rice) we need to live in order to feed our people (Muthayya et al., 2014). The agricultural sector is a key sector in the country's economy and the life of the people involved, and it leads to the production of gross domestic product (GDP), employment, and food supply. But with an increase in time and population growth, the agricultural land is under threat. The problem of rice cultivation is the transformation of the agricultural land into a residential area to accommodate both population growth and industrial, commercial, and tourism development.

As the population increases and investments in Indonesia increase, so is the demand for land for the construction of housing and industrial facilities (Goldblum & Wong, 2000). Land is scarce and does not grow but land use is growing. To meet these needs, the communities, developers and investors are looking for new land which has not yet been used for residential development or industrial development.

Agricultural land is the more attractive option as it is relatively inexpensive to buy and lease than urban land, which is very expensive (Evans, 1983). But the conversion of productive agricultural land to non-agricultural uses (housing development, factories, toll roads, high-speed railways, etc.) could reduce agricultural land which is essential for providing food to humans as well as maintaining the balance between humans and nature (Sudrajat et al., 2023). Human beings are responsible for nature, which is green and aquatic. Green areas in the form of rice fields have always been a special attraction to tourists who have memories in the context of rice fields to this day (Wang et al., 2024). But these green areas are now being turned into office complexes and supermarkets and the agriculture sector is struggling to develop and grow food to feed the population.

Land-use change is known as land conversion and is the transformation of a part or all of a land area from its original or planned function into another one that will probably be harmful to the environment and its potential (Houghton, 1994). Land conversion is also a shift in the land use because of the increasing population and the growing demand for good quality of life.

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Land conversion is generally associated with regional development and is actually a consequence of the development of the region (Firman, 1997). In many cases, land conversion is due to an imbalance of land control, which is mainly dominated by the capitalist marketeers who obtain building permits from the government. Agricultural land is reduced with population growth.

This impacts food production, socio-economic conditions, socio-cultural aspects, and environmental sustainability. The fast growth of population and the demand for housing has resulted in the decrease of agricultural land. The conversion of agricultural land has been accelerating to meet development needs beyond agriculture, particularly to satisfy industrial demands, which have increased at a much higher rate (Sasono, 1995, p. 13). Agricultural land is shrinking due to the conversion of agricultural land for residential and industrial purposes.

Farmers are working in the informal sector more than farming. Moreover, the agricultural sector is losing popularity and farmers have decided that they will give up their land to other uses. Landowners are inclined to put their agricultural land to non-agricultural use for a better economic use for the sake of the future. Agricultural land—particularly rice fields—has a high value in terms of market value since it is strategically located in the developing areas. Such a high price is very attractive to farmers who want to convert their agricultural land to other uses. It does not make sense to farm rice fields because of the huge difference in income compared to rice cultivation.

Land conversion is a major challenge for tenant farmers and agricultural laborers who are unable to easily shift to alternative jobs. As land in agriculture is lost in a shrinking country, employment opportunities become increasingly scarce, and social problems in society are caused. So far, the growth of green areas transformed into office complexes and supermarkets is ongoing and farmers are increasingly marginalized and are not able to meet food production. With a growing conversion of rice fields, the government has set up agricultural guidelines (e.g., agrarian laws that give the state the authority to control natural resources) and this means the government and other actors have a right to manage natural resources in a peaceful way.

Such power does not prohibit landowners from using their rice fields but rather places restrictions on land use conversion in order to maintain green areas of the country for tourism (Budi Harsono, 1999). The protection of agricultural land (in particular sustainable food agricultural land) is the responsibility of the government through laws and other regulations (Hudecová & Kysel, 2023).

But if we do not have a means to control sustainable food agricultural land and it is not incorporated in a comprehensive agricultural development framework, such efforts cannot succeed. From that background, the research title to be considered to be a research title that would have problems. What is the regulation of the conversion of sustainable food agricultural land according to the established law? What are government strategies to control the conversion of sustainable agricultural land to ensure food security?

2. RESEARCH METHOD

Research methodology is a set of well-organized ways of thinking and acting that are designed to conduct research in order to reach a goal (Johnny Ibrahim, 2013). This study makes use of normative legal research, which is a type of library research based on legal norms established in statutory regulations (Waluyo, 2001).

We adopt a statutory approach and review legal norms related to the control of agricultural land conversion and legal concepts relevant to the issues under discussion. Legal materials used in the study consist of primary legal materials (the law and regulations) and secondary legal materials (the legal literature and expert opinions), which are used to build the theoretical basis of the analysis.

3. RESULTS AND DISCUSSION

3.1 Regulation of the Control of Sustainable Food Agricultural Land Conversion

Agriculture is one of the major sources of the national income in food and basic goods (Pinstrup-Andersen & Pandya-Lorch, 1998). Agriculture provides a source of food security for the country with healthy food in the form of vegetables, tubers and rice, in which the country is able to access a staple food. If rice fields are transformed into a non-agricultural industry, agricultural land as a source of food security will gradually disappear and Indonesia should become dependent on imported food from neighboring countries in order to feed itself to continue growing the national debt (Patunru, 2018).

The government is required to formulate appropriate policies to deal with this problem. Policy can be viewed as a proposed course of action by individuals, groups or the government in an environment that has the potential to affect to an individual in order to achieve a goal or meet a goal (Gusmão Caiado et al., 2018). Public policy is a policy being made by government and public officials. In layman terms, public policy refers to a number of government activities aimed at solving societal problems, either directly or indirectly, through the institutions that influence public life.

In response to the growing rate of agricultural land conversion, the government has made Law Number 41 of 2009 on the Protection of Sustainable Agricultural Land and Government Regulation Number 1 of 2011 on Designation and Conversion of Sustainable Food Agricultural Land in order to protect farmers' livelihoods as the main producers of national food (Dirman et al., 2018). They set up sustainable green zones in rice fields so that farmers do not convert agricultural land.

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These green zones are all established and adopted by the government in all regions without exception. The government policy of developing sustainable green zones aims to reduce dependency on imported staple food items to help reduce the national debt (Risks et al., 2025). This is a policy which should be implemented and updated as necessary considering legal and societal requirements.

Therefore, those who are driven only by personal interests are restricted by regulations on sustainable green zones, and any violation will be punished in law. Rice field areas designated as sustainable agricultural land must produce food products that can be fed to the local community in the same way (Rodenburg et al., 2014). Rice fields that are not recognized as sustainable green zones can also be converted if approved by the government and the government application is made. If a land conversion is rejected by the government, it can be revoked in the future. In order to facilitate sustainable green zone development and to identify covert land conversion practices, the government has introduced new rules with regard to protecting sustainable agricultural land (Harrop, 2007).

These are intended to suppress public interest in converting rice fields into buildings while protecting ecological balance. There are legal sanctions against people who convert agricultural land without the government's permission. The central government provides these regulations to local governments for immediate implementation and rice field conversion is not allowed (Wisnaeni & Najib, 2025).

Regional governments also let farmers select their land as a sustainable agricultural area. Farmers who agree to such designation are given incentives to ensure that they are able to produce high agricultural yields and keep their rice fields clean and fertile. This policy promotes environmental awareness, ecological balance and awareness of the potential negative effects of agricultural land conversion on tourism for farmers in the future.

3.2 Government Strategies in Controlling Sustainable Agricultural Land Conversion to Support Food Security

Several measures may be undertaken by the government to discourage the conversion of rice fields and to reshape public awareness regarding the importance of agricultural land as a primary source of food security, thereby reducing national debt associated with food imports. These strategies include:

- a. The central government, along with its administrative bodies, disseminates regulations concerning sustainable rice field zones to regional governments and conducts public outreach programs targeting rural communities that own agricultural land. This socialization process aims to encourage landowners to reconsider their intentions to convert rice fields, while emphasizing that regulations governing sustainable agricultural land are legally binding and accompanied by sanctions for non-compliance.
- b. The implementation of incentive-based policies for farmers who continue to preserve productive agricultural land, as regulated under **Government Regulation Number 12 of 2012 on Incentives for the Protection of Sustainable Food Agricultural Land**. Farmers who agree to designate their land as sustainable agricultural zones are entitled to receive financial support, provided that their land consistently produces marketable agricultural yields.

The regulation defines the types of incentives available in the management of Sustainable Food Agricultural Land (LP2B). The central, provincial and regional governments are responsible for incentives (Mufadhdhal et al., 2026).

At present, incentives are similar on the part of different levels of government and can be the development of better seeds, agricultural infrastructure, research funding, access to information, the development of production technologies, the guarantee of land ownership certificates, a reduction in land and building taxes, and awards to the top performing farmers.

Community engagement is critical in the management of sustainable food agricultural land. Public participation is a manifestation of transparency because without transparent governance, there is no real public involvement in government. Government policies are in place to prevent land conversion so as to alleviate the pollution from the development of rice fields (Houghton, 1994).

Agricultural yields that are the staple of daily life are generated and stored in rice fields, and they continue to support local economies. Although there are reasons why people want to convert land, it is a collective responsibility of citizens to comply with government policies to stop the cycle of land conversion. Farmers are not just policy subjects but also key actors in supporting agricultural land conservation.

4. CONCLUSION

The control of sustainable food agricultural land conversion constitutes a strategic legal instrument in safeguarding national food security and environmental sustainability. Based on the findings of this study, the regulatory framework governing the control of sustainable food agricultural land conversion is founded upon a clear and comprehensive legal basis, particularly Law Number 41 of 2009 on the Protection of Sustainable Food Agricultural Land and its implementing regulations, notably Government Regulation Number 1 of 2011. These legal instruments affirm the role of the state in regulating agricultural land utilization through the designation of sustainable food agricultural zones, the restriction of land-use conversion, and the imposition

of sanctions for violations. Such regulatory measures reflect the state's responsibility to protect agrarian resources and to ensure the long-term availability of food for society.

Furthermore, the government's strategies in controlling the conversion of sustainable food agricultural land are implemented through regulatory, incentive-based, and participatory approaches. In addition to imposing prohibitions and restrictions on land conversion, the government provides incentives to farmers who preserve productive agricultural land, as stipulated in Government Regulation Number 12 of 2012. Moreover, policy dissemination and active community participation—particularly among farmers—play a crucial role in enhancing the effectiveness of land conversion control. The synergy between the government's commitment to law enforcement and the active involvement of the community constitutes a key factor in the successful protection of sustainable food agricultural land, thereby ensuring the continuity of food production, environmental balance, and the long-term welfare of farmers.

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