



Reconstruction of Agrarian Policy on Sustainable Agricultural Land Conversion Control in Indonesia

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ABSTRACT

The conversion of agricultural land in Indonesia continues to increase due to industrial, housing, and infrastructure development that is not balanced with efforts to protect sustainable food land. This condition poses a threat to food security, environmental sustainability, and agrarian justice. This research aims to reconstruct agrarian policies in controlling sustainable agricultural land conversion in Indonesia through an analysis of the effectiveness of regulations, institutions, and the implementation of applicable policies. The research uses normative legal methods with legislative, conceptual, and socio-legal approaches. Data was obtained through literature studies, documentation, and interviews with 15 informants consisting of academics, local governments, and farmers. Data analysis was carried out qualitatively through legal interpretation techniques and thematic analysis. The results of the study show that the policy of controlling land use transfer is still sectoral, there is weak supervision, and there is an insynchronization between spatial planning policies and economic development. This research offers a reconstruction of agrarian policies based on integrated governance, strengthening supervision, and legal protection of sustainable agricultural land

INTRODUCTION

The change in the function of agricultural land into industrial areas, housing, tourist areas, and infrastructure has continued to increase in various regions of Indonesia in recent years. These conditions pose a serious threat to national food security, environmental sustainability, and the welfare of the agrarian community. The issue of land conversion is not only related to economic development, but also concerns the sustainability of the national agrarian system in the midst of increasing investment and urbanization needs. Data from the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency shows that the rate of conversion of productive agricultural land in Indonesia continues to increase, especially in urban buffer areas and strategic areas for national development (Ministry of ATR/BPN, 2023). This phenomenon shows that the control of agricultural land conversion is still a crucial problem in agrarian governance in Indonesia.

The Indonesian government has actually established various regulations to protect sustainable food agricultural land, one of which is through Law Number 41 of 2009 concerning the Protection of Sustainable Food Agricultural Land. However, the implementation of the policy still faces various obstacles such as weak supervision, spatial disharmony, low commitment of local governments, and dominance of economic interests and development investment. According to research by Sari and Nugroho (2022), the weak synchronization between spatial planning policies and regional development policies has caused agricultural land protection to not run optimally in various regions. In addition, Wicaksono et al. (2023) emphasized that the high pressure of urbanization and the growth of industrial estates are the main factors in increasing the conversion of productive agricultural land in Indonesia.

The phenomenon of agricultural land conversion is also increasing in tourist areas and buffer areas of large cities. Research by Pratama and Handayani (2024) shows that the conversion of agricultural land in Bali and West Java occurred massively due to the high need for development in the tourism and property sectors. This condition causes a decrease in the area of productive land and a reduction in the carrying capacity of regional food. Meanwhile, research by Hidayat et al. (2023) explained that the weak supervision of local governments over development permits has contributed to accelerating the change in the function of agricultural land to non-agricultural areas. These findings show that agrarian problems in Indonesia are not only normative, but also related to social, economic, political, and governance aspects of local governance.

Various previous studies have discussed the protection of agricultural land from the perspective of legal, spatial planning, and sustainable development. Rahmawati and Syahputra (2022) explained that the LP2B policy still faces implementation obstacles due to weak coordination between institutions and lack of community participation. Another study by Kusuma et al. (2024) confirms that land use control policies in Indonesia are still sectoral and have not been integrated with technology-based supervision systems. In addition, Arifin's research (2023) shows that legal protection of agricultural land

is often lost by the interests of investment and national infrastructure development.

Although much research has been done on agricultural land conversion, most previous research has focused more on economic impacts, the effectiveness of policy implementation, or case studies in specific areas. Previous research has not discussed much about the comprehensive reconstruction of agrarian policies that integrate aspects of agrarian law, spatial planning, digital supervision, environmental sustainability, and community participation in controlling the transfer of agricultural land use. Thus, there is a research gap in the form of the absence of an integrated agrarian policy model that is able to answer the challenges of modern development and food land protection in a sustainable manner (Rahmawati & Syahputra, 2022; Kusuma et al., 2024).

Theoretically, this research is based on sustainable development theory, agrarian justice theory, and public policy theory. Sustainable development theory emphasizes the importance of a balance between economic growth, environmental protection, and social welfare in the management of agrarian resources. In this context, agricultural land is seen as a strategic asset of the state that must be protected in order to maintain national food security and social stability of the agrarian community. Meanwhile, the theory of agrarian justice emphasizes the importance of protecting the rights of agrarian communities against uncontrolled capitalization pressures and development expansion (Arifin, 2023).

This research aims to reconstruct agrarian policy in controlling the conversion of sustainable agricultural land in Indonesia through an analysis of regulatory weaknesses, spatial disharmony, and the effectiveness of the implementation of sustainable food agricultural land protection policies. This research also aims to formulate an agrarian policy model that is more adaptive to the challenges of investment, urbanization, and economic development while still paying attention to the principles of environmental sustainability and protection of agrarian communities.

The contribution of this research is theoretically expected to strengthen the development of sustainable agrarian law studies, especially related to the reconstruction of agricultural land transfer control policies in Indonesia. Practically, the results of this study are expected to be recommendations for the central and regional governments in strengthening regulatory synchronization, spatial planning, LP2B protection, and the development of an integrated agrarian governance-based control system to support national food security and sustainable development in Indonesia.

THEORETICAL REVIEW

Agrarian Policy and the Urgency of Sustainable Agricultural Land Protection

Agrarian policy in Indonesia has a strategic role in regulating the control, utilization, and protection of land as the main resource for the socio-economic life of the community. In the context of sustainable development, agricultural land is not only understood as an object of food production, but also as a living space for farmers, an instrument of food security, and part of the ecological

balance. The urgency of protecting agricultural land is getting stronger because data from the Central Statistics Agency shows that Indonesia's rice harvest area in 2024 is only around 10.05 million hectares with rice production of 53.14 million tons of dry milled grain, so that productive land stability is an important aspect in maintaining the national food supply (Central Statistics Agency, 2025). This condition shows that controlling the conversion of agricultural land must be the main agenda in the reconstruction of Indonesia's agrarian policy.

Globally, the issue of agricultural land conversion is also an important concern because urbanization has changed the food system from rural to urban areas. FAO (2024) emphasizes that urbanization affects agrifood systems and creates new challenges in access to affordable and healthy food. In addition, FAO (2025) places land as a core resource in the agrifood system because it supports food security, biodiversity, livelihoods, and ecosystem services. Thus, the problem of agricultural land conversion in Indonesia is part of the global problem regarding land governance, food, and sustainable development.

Land Conversion as a Structural Agrarian Problem

The conversion of agricultural land into residential, industrial, tourism, and infrastructure areas shows that there is structural pressure on the national agrarian system. Ramadhan and Murti (2024) found that the dynamics of the conversion of rice fields in the Sarbagita Metropolitan area are influenced by urbanization, an increase in the economic value of land, and the expansion of urban areas. These findings show that land conversion is not only a matter of individual decisions of landowners, but also the result of a development orientation that prioritizes the economic value of land over its social and ecological functions.

In the socio-economic context, land conversion is also related to the welfare of farmers. Sudarti, Aisah, and Sari (2025) explained that agrarian transformation in South Sumatra is related to changes in the welfare structure of farmers, especially when agricultural products are no longer able to compete with the selling value of land. Putra (2025) also shows that production costs, the risk of crop failure, and household economic pressure are the main causes of the conversion of sustainable food agricultural land. This shows that the reconstruction of agrarian policy is not enough to be carried out through the prohibition of conversion, but must be accompanied by economic protection for farmers.

LP2B Protection and Policy Implementation Weaknesses

Sustainable Food Agricultural Land Protection (LP2B) is an important legal instrument in reducing the rate of agricultural land conversion. However, its implementation still faces serious problems. Hambali, Sutaryono, and Pinuji (2022) show that the suitability of the LP2B area with the regional spatial plan is not fully optimal because there are still differences between potential agricultural areas and formal determinations in spatial planning documents. Dayanti and Soetjipto (2024) also emphasized that the effectiveness of the LP2B policy is highly determined by the consistency of implementation, incentive support, and commitment of local governments.

The weaknesses of LP2B implementation are also seen in the context of regions that experience high development pressure. Radana, Widnyani, and

Astawa (2025) found that the implementation of the LP2B policy in North Kuta District, Badung, faces obstacles in the form of tourism development pressures, weak farmer participation, and low policy transparency. This condition proves that the LP2B policy has not been fully able to control land conversion if it is not supported by supervision, law enforcement, and participation of the agrarian community.

Spatial Planning, Food Security, and Environmental Justice

The control of agricultural land conversion is closely related to spatial planning policies. Haris, Nasution, and Syafri (2023) explained that controlling the use of agricultural land space based on food security requires integration between regional planning, permit supervision, and protection of productive areas. Meanwhile, Muttaqin, Muhdar, and Sabarudin (2024) emphasized that agricultural area spatial planning policies must be placed in the perspective of environmental justice because the loss of agricultural land not only harms farmers, but also threatens people's rights to sustainable food and the environment.

International studies also reinforce the importance of integration between spatial planning, food, and sustainability. Giller et al. (2021) emphasized that the future of food production is highly dependent on the ability of agricultural systems to maintain productivity, land sustainability, and the welfare of food producers. The OECD and FAO (2024) also emphasize that the sustainability of food systems is not only determined by production, but also by the efficiency of resource use, the reduction of food loss, and the protection of agricultural production bases. Thus, Indonesia's agrarian policy needs to be directed at land governance that is not only legalistic, but also ecological and social.

Legal Approach in Land Conversion Control

From a legal perspective, controlling land use transfer requires certainty of norms, supervision of permits, and effective sanctions. Arba, Putro, and Wagian (2025) emphasized that legal protection for LP2B has direct implications for the practice of conversion of agricultural land without a permit. Muzqufa, Sadino, and Shebubakar (2025) also show that the case of rice field conversion in Karawang Regency shows the need to strengthen the legal policy of protecting agricultural land for food. The two studies show that the main problem lies not in the absence of rules, but in the weak consistency of law enforcement and local government supervision.

In the framework of agrarian law, land has a social function so its use should not only follow market logic. Therefore, control of agricultural land conversion needs to be constructed as part of the protection of public interests, especially food security and environmental sustainability. Saifuddin (2024) emphasized that sustainable food agricultural land protection strategies need to be strengthened through more responsive cross-sector and institutional coordination. This shows that the reconstruction of agrarian policy must connect aspects of regulation, institutional, spatial planning, and farmer protection in an integrated manner.

Reconstruction of Agrarian Policy Based on Sustainable Governance

The reconstruction of agrarian policy needs to be directed towards a more integrative governance model. Ekasari et al. (2024) explained that sustainable food agricultural land protection strategies must involve regional planning, farmer empowerment, strengthening local institutions, and supervision of space utilization. In this context, the control of land transfer is not enough through an administrative approach, but must be strengthened with a data-based monitoring system, incentives for farmers, and community participation in the supervision of the agrarian space.

This approach is in line with international studies on land use change. Ferraro, Blanco, Pessah, and Castro (2021) show that changes in land use in agricultural systems are influenced by farmers' decisions, crop system performance, and socio-ecological dynamics. This means that land control policies must understand the relationship between the behavior of local actors, economic structure, and ecosystem sustainability. Thus, the reconstruction of agrarian policy in Indonesia needs to shift from a sectoral approach to a systemic approach that combines law, economic, social, technological, and ecology.

Novelty and Research Position

Based on previous studies, research on the conversion of agricultural land in Indonesia generally still focuses on the effectiveness of LP2B implementation, socio-economic impact, spatial suitability, or legal protection in certain areas. However, these studies have not formulated a comprehensive agrarian policy reconstruction model that integrates five main aspects, namely regulatory harmonization, spatial control, digital supervision, farmer economic protection, and environmental justice. This is where the novelty of this research lies, which is to offer a framework for the reconstruction of sustainable agrarian policies that not only suppress normative land conversion, but also build a system of agricultural land protection through integrated agrarian governance.

The novelty of this research also lies in the effort to shift the approach to controlling land use change from a reactive model to a preventive-participatory model. The reactive model only relies on prohibitions and sanctions after conversion occurs, while the preventive-participatory model emphasizes data-based land mapping, digital permit monitoring, economic incentives for farmers, synchronization of RTRW with LP2B, and involvement of agrarian communities in policy supervision. Thus, this research provides a theoretical contribution to the development of sustainable agrarian law and a practical contribution for the central and regional governments in strengthening the control of agricultural land conversion in Indonesia.

METHODOLOGY

Types of Research

This research uses a qualitative approach with a socio-legal research design combined with a normative legal approach. The normative approach is used to examine regulations related to agrarian policies, spatial planning, and sustainable food agricultural land protection, while the socio-legal approach is used to understand policy implementation in social and institutional practices. The research is descriptive-analytical to formulate a reconstruction of agrarian

policies in controlling the transfer of sustainable agricultural land in Indonesia (Irwansyah, 2021).

Population and Sample

The research population includes agrarian law academics, local governments in the field of spatial and land planning, land practitioners, and farming communities. The sampling technique uses purposive sampling because informants are selected based on knowledge and involvement in agrarian issues. The number of participants was 15 informants consisting of academics, local government officials, land practitioners, and farmers from areas experiencing high pressure for land conversion. The determination of the number of informants is based on the principle of data saturation (Sugiyono, 2022).

Research Instruments

The research instrument consisted of semi-structured interview guidelines, observation sheets, and documentation of agrarian and spatial policies. The interview guidelines were prepared based on indicators of sustainable food agricultural land protection, agrarian policy effectiveness, and land conversion control adapted from Hambali et al. (2022) and Haris et al. (2023). Data validity is carried out through source triangulation, method triangulation, and member checking.

Data Collection Procedure

Data collection was carried out through literature studies, field observations, in-depth interviews, and documentation of regional regulations and policies related to agricultural land protection. All interview data is then transcribed, verified, and grouped based on the research theme to facilitate the analysis process.

Data Analysis Techniques

Data analysis uses interactive qualitative analysis techniques through the stages of data reduction, data presentation, and conclusion drawn. The analysis process is carried out interpretively to identify policy patterns, implementation weaknesses, and sustainable agrarian policy reconstruction models. Data processing is assisted using NVivo 14 software to simplify the coding and thematic analysis process.

RESULTS

Increasing Agricultural Land Conversion and Regional Development Pressures

The results of the study show that the conversion of agricultural land in Indonesia continues to increase, especially in urban buffer areas, industrial estates, and tourism areas. Based on the results of regional policy documentation and field observations, the most dominant land function change occurred in productive rice fields that were diverted into residential areas, trade centers, industries, and road infrastructure. Informants from local governments stated that the increase in investment needs and regional development are the main factors that encourage the acceleration of agricultural land conversion.

One of the informants from the local government stated that:

"The pressure of development is now much greater than the ability of local governments to maintain agricultural land. Many rice fields eventually turned into

housing and business areas because they were considered more economically profitable" (PD-03 informant, interview, February 12, 2025).

A similar statement was also conveyed by an informant of an agrarian law academic:

"Land conversion is no longer an incidental case, but has become a pattern of regional development. When investment comes in, agricultural land is often the first sector to be sacrificed" (Informant AK-02, interview, February 15, 2025).

In addition, farmers stated that the high selling price of land was the main reason for people to sell their agricultural land.

"The price of land is now much higher than agricultural products. Many farmers choose to sell rice fields because the family's economic needs are also getting bigger" (PT-01 Informant, interview, February 20, 2025).

As many as 11 out of 15 informants stated that the orientation of regional development is still more focused on economic growth than the protection of sustainable food agricultural land. This condition causes a reduction in productive land area and an increase in food dependence from outside the region.

Weak Synchronization of Agrarian and Spatial Policies

The research found that the implementation of the sustainable food agricultural land protection policy (LP2B) still faces the problem of regulatory synchronization between agrarian policies, spatial planning, and regional development. The results of the document analysis show that some regions have not fully integrated the LP2B area into the RTRW consistently.

One of the spatial planning officials stated:

"The biggest problem is actually the absence of rules, but there are often differences in interests between spatial planning, investment, and regional development" (PD-01 informant, interview, February 18, 2025).

Agrarian law academics also explain that:

"Agrarian policy is still running sectorally. LP2B is self-regulated, the spatial layout runs on its own, while investment permits often have higher priorities" (Informant AK-01, interview, February 19, 2025).

Other findings show weak inter-agency coordination in the supervision of productive agricultural areas.

"Coordination between the agriculture, spatial planning, and land offices has not been running optimally, so that land supervision has become ineffective" (Informant PR-02, interview, February 22, 2025).

A total of 10 informants stated that regulatory synchronization and institutional coordination are still the main obstacles in controlling the transfer of agricultural land functions. In addition, 8 informants assessed that regional economic development policies are often more dominant than the protection of productive agricultural areas.

Weaknesses in Supervision and Law Enforcement

The results of the study show that weak supervision is the main factor in the increase in the conversion of agricultural land. Based on the results of observations and interviews, the supervision of space utilization is still carried out administratively and has not been supported by an integrated digital surveillance system.

One land practitioner stated:

"Supervision in the field is still very manual. Local governments do not yet have a digital monitoring system that is able to detect changes in land function quickly" (Informant PR-01, interview, February 24, 2025).

Other statements were also delivered by local government officials:

"Limited spatial data and human resources make the supervision of land use transfer not running optimally" (PD-04 Informant, interview, February 26, 2025).

In addition, research found that law enforcement against spatial planning violations is still weak.

"Many violations only stop at administrative reprimands. It is very rare that there are strict sanctions against developers who violate agricultural areas" (Informant AK-03, interview, February 27, 2025).

Farmers also revealed that people often do not know the status of agricultural land protection in their area.

"We have never been involved in spatial supervision. You know that the surrounding land has been turned into a building" (PT-03 informant, interview, March 1, 2025).

A total of 12 informants stated that weak supervision and indecisiveness in law enforcement caused agricultural land conversions to continue to increase in various regions.

Socio-Economic Impact on Agrarian Communities

Research found that the conversion of agricultural land has a significant impact on the socio-economic conditions of the agrarian community. The reduction of productive land leads to a decrease in farmers' income and an increase in dependence on non-agricultural work.

One of the farmers stated:

"Now agricultural products are not enough to meet the needs of families because land is getting narrower and production costs continue to rise" (PT-02 informant, interview, March 3, 2025).

Other farmers also explained that:

"Many young generations are no longer interested in farming because land continues to decrease and other jobs are considered more promising" (PT-04 Informant, interview, March 5, 2025).

Academics in the agrarian field consider that this condition has the potential to disrupt national food security in the long term.

"If land conversion continues to occur, Indonesia will face the risk of a decline in domestic food production capacity" (Informant AK-04, interview, March 6, 2025).

In addition, the results of the study show that there is a change in the economic structure of the community from the agricultural sector to the informal non-agricultural sector. This condition makes the social sustainability of the agrarian community increasingly vulnerable.

Findings of Sustainable Agrarian Policy Reconstruction

The research found that the reconstruction of agrarian policy needs to be carried out through an integrated governance approach that integrates agrarian regulations, spatial planning, digital supervision, farmer protection, and community participation.

One of the academics stated:

"It is not enough to control land use transfer just by the rule of law. There must be an integration of digital supervision, farmer economic protection, and central-regional policy synchronization" (Informant AK-01, interview, March 8, 2025).

Land practitioners also explained that:

"Spatial data-based monitoring systems and digital mapping need to be implemented so that changes in land function can be monitored in real time" (PR-03 informant, interview, March 9, 2025).

In addition, farmers assess the need for economic support from the government to maintain agricultural land.

"If the government wants rice fields to be maintained, farmers must also be given assistance and guarantee of crop prices" (PT-01 informant, interview, March 10, 2025).

A total of 13 informants stated that a preventive-participatory land control approach is more effective than an administrative approach alone. The research also found that the protection of agricultural land requires strengthening cross-sector coordination, technology-based supervision, and the active involvement of the agrarian community in spatial supervision.

Differences in Findings with Previous Research

The results of this study show a difference from previous research which generally only places land use transfer as a problem of policy implementation or weak administrative supervision. This study found that the main problem lies in the lack of integration of agrarian policies, spatial planning, digital supervision, farmers' economic protection, and community participation in a sustainable governance system.

One of the academics stated:

"The existing policies have been too focused on administrative prohibitions, but they have not touched the root of problems such as farmers' economic pressure and weak spatial integration" (Informant AK-02, interview, March 12, 2025).

In addition, this study found that a reactive approach through administrative sanctions has not been effective in suppressing agricultural land conversion.

"As long as the control is only administrative, land conversion will continue to occur because of the need for development and much stronger market pressure" (Informant PR-01, interview, March 14, 2025).

The findings show that preventive-participatory models based on digital surveillance, farmer economic protection, and spatial integration are more relevant to be applied in controlling the conversion of sustainable agricultural land in Indonesia.

DISCUSSION

The main findings of the study show that the control of agricultural land conversion in Indonesia has not been effective because agrarian policies, spatial planning, and economic development are still moving sectorally. The results of interviews with 15 informants show that investment pressure, settlement expansion, industrial development, and infrastructure are the dominant factors that accelerate changes in the function of agricultural land. This condition is in line

with BPS data which shows that Indonesia's rice harvest area in 2024 will be 10.05 million hectares, down 1.64% compared to 2023, while rice production will decrease by 1.55% to 53.14 million tons of GKG. This data reinforces the finding that the stability of agricultural land has a direct relationship with national food production capacity.

The findings can be explained through sustainable development theory, which emphasizes a balance between economic growth, environmental protection, and social justice. In the context of this study, regional development still tends to place land as an economic commodity, not as a strategic resource for food security. As a result, the social function of land as known in agrarian law becomes weak when dealing with investment interests. This condition is in line with Giller et al. (2021), who affirm that the future of food depends heavily on the state's ability to maintain land sustainability and the welfare of food producers.

The results of the study also show that the main weakness of the LP2B policy lies in the lack of synchronization of spatial planning policies with the protection of agricultural land. Some regions have not strongly integrated LP2B areas in the RTRW, so non-agricultural development permits can still appear in productive agricultural areas. This finding is in line with Hambali et al. (2022), who found that the suitability of the LP2B area with spatial planning is still an important issue in the protection of agricultural land. Thus, the problem of land conversion is not only a problem of weak rules, but also weak policy integration across sectors.

From the perspective of public policy theory, failure to control land use change shows an implementation gap, which is a gap between regulatory objectives and implementation practices. Law No. 41 of 2009 has provided a basis for the protection of sustainable food agricultural land, but its implementation has not been supported by digital surveillance, integrated spatial data, institutional coordination, and consistent sanctions. Arba et al. (2025) also emphasized that LP2B legal protection has direct implications for land conversion without permission, especially when supervision and law enforcement are not running strongly.

Socio-economically, this study found that farmers do not always transfer land functions because of personal desires, but due to economic pressure, high production costs, low competitiveness of farming businesses, and increased land selling value. These findings broaden the understanding that control of land conversion is not enough based on legal prohibition alone. Agrarian policies need to provide economic incentives to farmers, such as production subsidies, crop price protection, technological assistance, agricultural land tax relief, and equitable access to financing. Without this support, farmers will remain in a vulnerable position and more easily encouraged to sell their land.

An important difference between this study and previous research lies in its analytical position. Previous studies have generally highlighted the effectiveness of LP2B, spatial incompatibilities, or the socio-economic impacts of land conversion separately. This research shows that the main problem lies in the disconnect of the five main components, namely agrarian regulation, spatial planning, digital supervision, farmer economic protection, and community

participation. Therefore, the scientific contribution of this research is to offer the concept of agrarian policy reconstruction based on integrated and preventive-participatory governance.

The theoretical significance of these findings is the need to expand the perspective in agrarian law. Agrarian policy is not sufficiently understood as a regulation of land ownership and utilization, but must be placed as an instrument of food sustainability, environmental justice, and protection of agrarian communities. In practical terms, these findings confirm that the central and regional governments need to build a land control system based on spatial data, strengthen the synchronization of RTRW and LP2B, tighten land use change permits, and involve the community in supervision.

The obstacle to this study lies in the limited number of informants, namely 15 people, as well as the coverage of areas that do not represent all of Indonesia's agrarian characteristics. In addition, this study has not used quantitative spatial analysis based on satellite imagery to measure land area changes more precisely. Therefore, further research is recommended using a mixed method by combining interviews, document analysis, spatial data, and GIS mapping so that the agrarian policy reconstruction model can be tested more robustly in various regional typologies, such as industrial estates, urban buffer areas, tourist areas, and national food centers.

CONCLUSIONS AND RECOMMENDATIONS

This study concludes that the control of sustainable agricultural land conversion in Indonesia still faces various structural problems characterized by weak synchronization of agrarian and spatial policies, low supervision effectiveness, and the dominance of economic development and investment interests in the protection of sustainable food agricultural land. The results of the study show that land control policies so far are still sectoral and administrative so that they have not been able to reduce the rate of land conversion optimally. In addition to having an impact on the reduction of productive land area, land conversion also affects national food security, farmers' welfare, and the social sustainability of agrarian communities. This research emphasizes that agrarian issues are not only related to legal and spatial aspects, but also closely related to economic pressures, urbanization, and weak institutional integration in land governance in Indonesia.

Based on these findings, this study recommends the need to reconstruct agrarian policies based on integrated governance through strengthening the synchronization of agrarian regulations and spatial planning, the implementation of a digital surveillance system based on spatial data, and strengthening law enforcement against violations of agricultural land conversion. In addition, the government needs to provide economic protection for farmers through production subsidies, crop price protection, and incentives for agricultural land owners so that the sustainability of food land can be maintained. The next research is suggested to use a mixed method approach with the support of GIS-based spatial analysis and wider area coverage in order to be able to produce a more comprehensive and

applicable land use control model in supporting sustainable development and national food security.

FURTHER STUDY

Further research is suggested to develop a model for controlling the conversion of agricultural land based on spatial technology, Geographic Information System (GIS), and digital monitoring in real time to increase the effectiveness of sustainable agricultural land monitoring. In addition, future research needs to expand the scope of the region and integrate quantitative approaches and comparative policy analysis between regions in order to obtain agrarian policy formulations that are more adaptive to the dynamics of national development and food security.

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