



Implementation of Sustainable Food and Feed Agricultural Land Regulation in Gorontalo District: A Review

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Abstract | Indonesia is the country with the third largest rice production in the world. To strengthen food security in the future, Indonesia needs to implement food protection policies in every region. This underlies the issuance of several related regulations, including Law No. 41 of 2009 about sustainable food agricultural land (LP2B), Government Regulation (PP) No. 12 of 2012 about incentives for protecting LP2B. The success of implementing these regulations is certainly different in each region. This can be measured from the extent to which the implementation of this LP2B policy has been running, including in Gorontalo Regency. The purpose of this research is to find out how to implement the LP2B policy in the Gorontalo Regency. This research used qualitative methods with a literature study approach supported by data from the Head of the Gorontalo District Agriculture Office as key informants. The results of this study indicate that the Gorontalo regency government currently has a regional regulation (PERDA) No. 2 of 2017 which regulates LP2B protection program, however, there are no clear geographical boundaries regarding the LP2B program in Gorontalo Regency also not implemented yet the regulations related to incentives for farmers whose land is determined in the LP2B program.

Keywords | Sustainable food land, LP2B, Gorontalo district, Regulations, Staple feed

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INTRODUCTION

The implementation of sustainable food farming regulations in Gorontalo District is a response to the growing importance of agriculture in the region. The Gorontalo province has experienced significant growth in the cultivation of rice and maize, indicating the potential for further development in the agricultural sector (Kimijima *et al.*, 2020). This growth can be attributed to the agricultural reconstruction policy and programs implemented by the Indonesian central government, which have prioritized the

production of rice, maize, soybean, and meat (Kimijima *et al.*, 2020). These policies and programs have resulted in a 1.7-fold increase in the area used for rice cultivation and a 3.5-fold increase in the area used for maize cultivation from 2001 to 2015 at the Gorontalo province level (Kimijima *et al.*, 2020). The increase in production of rice and maize, with a 1.5 and 7.9 times increase respectively during the same period, further highlights the success of these policies in generating agricultural productivity (Kimijima *et al.*, 2020). As a result of this rapid growth in agriculture, it is important to ensure that land used for

farming is managed in a sustainable manner. Sustainable food farming regulations aimed to address the challenges associated with the expansion of agricultural activities in Gorontalo District. These regulations guarantee that all provinces, districts, and cities formulate plans for the protection of sustainable food agriculture land as part of their regional spatial planning (Ridwana *et al.*, 2022). Furthermore, these regulations stipulate the mapping of sustainable food agriculture land as a database, which is carried out in collaboration with research institutions and universities (Ridwana *et al.*, 2022). The implementation of these regulations is crucial for several reasons. First, it ensures the sustainable use of agricultural land, protecting it from overexploitation or degradation. Secondly, it promotes the conservation of natural resources and biodiversity, as sustainable farming practices prioritize the preservation of ecosystems.

Thirdly, the implementation of sustainable food farming regulations in Gorontalo District can contribute to poverty alleviation and economic development. The sustainable use of agricultural land is paramount in ensuring the long-term viability and success of the agricultural sector in Gorontalo District. By implementing regulations for sustainable food agriculture land, the government can maintain the productivity of agricultural land while protecting it from degradation and overexploitation. It is crucial to note that the implementation of sustainable food farming regulations may face challenges and obstacles. One potential challenge is the limited awareness and knowledge among farmers regarding these regulations. In a study conducted in Sleman Regency, it was found that farmers' knowledge of government regulations on sustainable food agriculture land protection was lacking (Triyono, 2019). This lack of awareness may hinder the effective implementation of sustainable food farming regulations in Gorontalo district.

In a study conducted in Sleman Regency, it was found that farmers' knowledge of government regulations on sustainable food agriculture land protection was lacking (Triyono, 2019). This lack of awareness may hinder the effective implementation of sustainable food farming regulations in Gorontalo District. Another challenge is the interpretation and consistency of regional regulations. In the case of Jembrana District, there were multiple interpretations of the regional regulation concerning sustainable food agriculture land protection (Rianita and Suwitra, 2019). These challenges highlight the importance of clear and well-defined regulations that provide guidance to farmers and other stakeholders involved in land management. Additionally, farmers' perceptions and attitudes towards sustainable food agriculture land protection policies play a significant role in their willingness to adhere to these regulations (Prasada and Masyhuri, 2020). A study conducted in Bali Province

found that farmers' perceptions of policies on sustainable food agriculture land protection are influenced by factors such as farming culture, attitudes towards.

The policy for the protection of sustainable food agricultural land is carried out by the state as an effort to guarantee the right to food as a human right of every citizen (Anggraini and Banowati, 2022). It also aims to achieve self-reliance, resilience, and food sovereignty, while promoting the welfare of farmers. The implementation of these policies in Gorontalo District is crucial to ensure the preservation of agricultural land and food crop production, particularly in rice fields. The local government of Gorontalo District should establish a policy for the protection of sustainable food agricultural land in their Regional Spatial Planning, which can then be implemented through a regional regulation on the protection of sustainable food agricultural land (Wijaya and Amri, 2022).

The implementation of this regulation is important because it ensures that agricultural land is used in a way that is sustainable and protects the environment. The regulation also helps to ensure that the local population has access to a reliable and sustainable food supply. The implementation of this regulation is crucial for ensuring that Kabupaten Gorontalo's agricultural land is used in a sustainable and responsible manner, and that the local population has access to a reliable and sustainable food supply. The purpose of this research is to find out how to implement the LP2B policy in the Gorontalo Regency.

MATERIALS AND METHODS

EXPERIMENTAL DESIGN

This research was empirical research on various supporting literature, accompanied by descriptive observation measures. This research focuses on the implementation of the sustainable food agricultural land (LP2B) policy in Gorontalo Regency. The author tries to look for social events among land owners by conducting a discussion approach or focus group discussion with community groups whose status is LP2B. The author combines this approach between literature study and observation, with the aim of collecting opinions, statements, ideas, suggestions and criticism regarding the implementation of the LP2B policy in Gorontalo Regency. In presenting the resulting data, research analysis uses a qualitative descriptive approach, with several process stages, namely the stage of collecting information or data, reducing data, presenting data, and drawing conclusions. This data acquisition process is a combination of secondary data and observation results which are then compared and presented. So, it can provide an overview of the implementation of the LP2B policy in Gorontalo Regency.

As a consequences of implementation of sustainable food agricultural land regulation in the Gorontalo sub district is an essential in each region. The idea was “Lahan Pertanian Pangan Berkelanjutan” which later known as (LP2B) to protect and develop for sustainable agriculture. The importance of this regulation were important since that agricultural land need to support the environment as well as the local population that provided the sustainable food supplies. The local government of sub-district of Gorontalo is committed to improving food security through the agricultural sector. However, there are challenges to the implementation of sustainable food agricultural land regulation in the region. For example, there may be resistance from landowners who do not want to designate their land as LP2B. Additionally, there may be a lack of resources or technical expertise to properly implement the regulation. Despite these challenges, the implementation of sustainable food agricultural land regulation is crucial for ensuring that Gorontalo districts agricultural land is used in a sustainable and responsible manner, and that the local population has access to a reliable and sustainable food supply.

IMPLEMENTATION OF SUSTAINABLE FOOD AGRICULTURAL LAND REGULATIONS IN GORONTALO REGENCY

The following is a general description of the implementation of sustainable food agricultural land regulations in Gorontalo Regency: (1) In 2017, Gorontalo Regency issued Regional Regulation (PERDA) number 2 of 2017 concerning Protection of Sustainable Food Agricultural Land; (2) The PERDA stipulates several areas as Sustainable Food Agricultural Land (LP2B) which is protected and developed for sustainable agriculture; (3) There are several factors that influence the implementation of sustainable food agricultural land regulations in Gorontalo Regency, such as suboptimal regional regulatory support, human resource and socio-economic conditions, status ownership and/or control of land, size and location of land, types of commodities produced, and lack of incentives for local governments and farmers; (4) Implementation of regulations on sustainable food farming in Gorontalo Regency still faces several obstacles, such as lack of support from regional regulations, lack of incentives for regional governments and farmers, and lack of financing in developing intensification activities and (5) Nevertheless, implementation of sustainable food agricultural land regulations in Gorontalo Regency remains important to ensure that agricultural land is used sustainably and responsibly, as well as ensuring that local communities have access to a reliable and sustainable food supply.

Implementation of the Sustainable Food Agriculture Regulations in Gorontalo Regency has shown promising results and has had a positive impact on the agricultural and food sectors. In this research, the secondary data used includes statistical data obtained from the Gorontalo District Agriculture Service (Dunggio and Rosiana, 2023). This data covers the harvest area and production results of food subsector commodities in Gorontalo Regency from 2016 to 2020. Analysis of this secondary data shows an increase in harvest area and production results of food subsector commodities during this period. This increase shows that the implementation of the Sustainable Food Agriculture Regulations in Gorontalo Regency has succeeded in encouraging sustainable growth in the agricultural and food sectors. Apart from that, previous research on the analysis of the potential of the economic sector in Gorontalo Regency also made a positive contribution to the results of the implementation of this regulation. This research shows that sector-based economic development has been carried out effectively in Gorontalo Regency, especially in the agricultural and food sectors (Bangun, 2018). Apart from positive results, the implementation of the Sustainable Food Agriculture Regulations in Gorontalo Regency also has a positive impact in terms of environmental sustainability and food security. This can be seen from efforts to increase food production which are carried out in a sustainable manner without damaging the environment and paying attention to the principles of sustainable agriculture. In discussing the results of the implementation of the Sustainable Food Agriculture Regulations in Gorontalo Regency, it is important to note that this implementation has directed Gorontalo Regency towards strong economic growth, quality and sustainable (Dunggio and Rosiana, 2023). Apart from that, the implementation of this regulation has also increased food security in Gorontalo Regency, ensuring there is an adequate food supply for the local community.

FACTORS INFLUENCING THE IMPLEMENTATION OF SUSTAINABLE FOOD AGRICULTURAL LAND REGULATIONS IN GORONTALO REGENCY

The following are factors that influence the implementation of sustainable food agricultural land regulations in Gorontalo Regency as follows:

- (a) The support for regional regulations is not optimum;
- (b) regional spatial in each district should be followed regulation of PLP2B;
- (c) the aspect both of the human resources and socio-economic conditions;
- (d) ownership, size, location of land;
- (e) commodity produced;
- (f) incentive from local government to support local farmers which participate in PLP2B;
- (g) lack of financing in developing intensification of activities that are not related with the commodity diversity index;
- (h) there is not additional

incentives for regional government in the allocation of agricultural sectors.

From these factors, it can be concluded that the implementation of sustainable food agricultural land regulations in Gorontalo Regency still faces several obstacles, such as lack of support from regional regulations, lack of incentives for local governments and farmers, and lack of financing in developing intensification activities. Therefore, efforts are needed to overcome these obstacles so that the implementation of regulations on sustainable food farming in Gorontalo Regency can run optimally. In the context of Gorontalo Regency, several factors can influence the implementation of sustainable food agricultural land regulations. First, the availability of suitable agricultural land is a crucial factor. Second, the knowledge and awareness of farmers and land managers about the regulations play a significant role in their compliance. Third, the effectiveness of enforcement and monitoring mechanisms by relevant authorities is also an influencing factor. Fourth, the economic incentives and support provided to farmers for practicing sustainable food agriculture can influence their adoption of the regulations. Fifth, the level of cooperation and collaboration among various stakeholders, including farmers, government agencies, and community organizations, can impact the implementation of regulations. Additionally, the existence of clear and comprehensive policies and guidelines regarding sustainable food agricultural land protection is essential. The availability of suitable agricultural land is a crucial factor influencing the implementation of sustainable food agricultural land regulations in Gorontalo Regency. Furthermore, the willingness and commitment of local communities and farmers to prioritize sustainable food agriculture practices can also influence the successful implementation of regulations. A study conducted in Brazil has reported that the higher level of farmers' perceptions influences their decisions to continue maintaining the sustainability of the farms they manage (Prasada and Masyhuri, 2020).

IMPACT OF IMPLEMENTATION OF SUSTAINABLE FOOD AND FEED? AGRICULTURAL LAND REGULATIONS IN GORONTALO REGENCY

The following is the impact of implementing sustainable food agricultural land regulations in Gorontalo Regency: (1) Implementation of sustainable food agricultural land regulations in Gorontalo Regency can help ensure that agricultural land is used sustainably and responsibly; (2) Implementation of sustainable food farming regulations can also help ensure that local communities have access to a reliable and sustainable food supply; (3) However, the implementation of sustainable food agricultural land regulations in Gorontalo Regency still faces

several obstacles, such as lack of support from regional regulations, lack of incentives for local governments and farmers, and lack of financing in developing intensification activities; (4) These obstacles can influence the impact of the implementation of sustainable food agricultural land regulations in Gorontalo Regency, so efforts need to be made to overcome these obstacles so that the implementation of sustainable food agricultural land regulations can run optimally; (5) Implementation of sustainable food agricultural land regulations can also help accelerate the establishment of sustainable food agricultural land maps (LP2B) in order to fulfill and maintain the availability of agricultural land to support national food needs; (6) Apart from that, implementing sustainable food agricultural land regulations can also help control the increasingly rapid conversion of agricultural land and (7) Implementation of sustainable food agricultural land regulations can also help empower farmers not to convert sustainable food agricultural land.

To improve the implementation of sustainable food agricultural land regulations in Gorontalo Regency, several recommendations can be made, including: (1) Increasing public understanding and awareness about the importance of protecting sustainable food agricultural land through outreach and educational campaigns; (2) Improve coordination between relevant agencies in the implementation of sustainable food agricultural land regulations to ensure synergy and program effectiveness; (3) Increasing community participation in sustainable food agricultural land management through training and community empowerment programs; (4) Increasing incentives for local governments and farmers to participate in protecting sustainable food agricultural land, such as providing land and building tax relief, financing research and development of superior seeds and varieties, and awards for high-achieving farmers; (5) Increase financing in the development of intensification activities based on the Commodity Diversity Index (IKK) to ensure the sustainability of agricultural production; (6) Increase supervision and law enforcement regarding violations of sustainable food agricultural land regulations to ensure program compliance and effectiveness; (7) Increasing the availability of data and information on sustainable food agricultural land for purposes of determining sustainable food agricultural land (LP2B) and making appropriate decisions; (8) Increase cooperation between local governments, farmers and communities in implementing sustainable food agricultural land regulations to ensure optimal participation and support. By implementing these recommendations, it is hoped that the implementation of sustainable food agricultural land regulations in Gorontalo Regency can run more optimally and effectively in ensuring the sustainability of agricultural production and reliable and sustainable food availability.

Implementation of sustainable food agricultural land regulations in Gorontalo Regency has been carried out through Regional Regulation (RR) number 2 of 2017 concerning protection of sustainable food agricultural land. The RR designates several areas as Sustainable Food Agricultural Land (LP2B) which are protected and developed for sustainable agriculture. However, the implementation of sustainable food agricultural land regulations in Gorontalo Regency still faces several obstacles, such as a lack of support from regional regulations, a lack of incentives for local governments and farmers, and a lack of financing for the development of intensification activities. These obstacles can influence the impact of implementing sustainable food agricultural land regulations in Gorontalo Regency. Therefore, efforts are needed to overcome these obstacles so that the implementation of regulations on sustainable food farming can run optimally. Several recommendations that can be made to improve the implementation of sustainable food agricultural land regulations in Gorontalo Regency include increasing public understanding and awareness, improving coordination between related agencies, increasing community participation, increasing incentives for local governments and farmers, increasing financing in the development of intensification activities, increasing supervision and law enforcement, increasing the availability of data and information, and increasing cooperation between local governments, farmers and the community.

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NOVELTY STATEMENT

The novelty of this research is the use of the implementation of sustainable food agricultural land regulation in Gorontalo District is a vital step towards ensuring the long-term sustainability and productivity of agricultural practices in the region. However, the success of this regulation relies heavily on its effective implementation and enforcement. The regulation guarantees that all provinces and districts/cities must formulate plans for the protection of sustainable food agriculture land, making it an integral part of regional spatial planning. This requirement is

also stated in the laws and regulations of the Minister of Agriculture, which emphasize the importance of mapping sustainable food agriculture land through research support from collaborations with research institutions and/or universities. The implementation of the sustainable food agricultural land regulation in Gorontalo District is crucial for protecting the region's agricultural practices and ensuring their long-term sustainability and productivity. Additionally, the regulation aims to provide legal certainty by clearly defining the measures and guidelines for protecting sustainable food agriculture land. Moreover, it is essential for the Gorontalo District government to adhere to the references set by regional regulations and national laws, such as Indonesian Act of Agriculture Land Protection Number 41 of 2009, in order to ensure the effectiveness and validity of the regulation.

AUTHOR'S CONTRIBUTION

MAI contributed to collecting data, data analysis and preparing the manuscript. DR, EBD, MHJ contributed to the research design, revised the manuscript and supervision. All authors read and approved the final version of the manuscript in the present journal.

ETHICAL APPROVAL

Ethical approval for the study was no needed, since it was literature review

CONFLICT OF INTEREST

The authors have declared no conflict of interest.

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