Determinant Analysis and Policy Recommendations for Stunting Prevention in West Sulawesi Province

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ABSTRACT

Agricultural land conversion is a crucial issue in facing the challenges of food security and natural resource conservation. Sidrap District, as one of the agricultural regions in Indonesia, faces significant pressure related to agricultural land conversion. Therefore, the implementation of local government supervision policies is very important. This research aims to analyse the implementation of local government supervision policies on agricultural land conversion in Sidrap Regency. This research uses a qualitative method with data sources from interviews, documentation, and observation. The data of this study used Nvivo 12 Plus to obtain relevant analyses. The findings of this study show that in the implementation of the policy to monitor the conversion of agricultural land in Sidrap District, there are two main approaches, namely preventive and repressive approaches, which work together to maintain the integrity of agricultural land. The preventive approach focuses on prevention efforts, while the repressive approach aims to enforce regulations with appropriate sanctions. In addition, determinant factors such as communication, resources, disposition and bureaucratic structure also play a crucial role in this overall process. With a holistic effort involving effective coordination between relevant agencies and improvements to these determinant factors, Sidrap district has the potential to maintain agricultural sustainability and food security in the future.

Keywords: Implementation; Public Policy; Monitoring; Use Change

INTRODUCTION

Agricultural land conversion refers to a change in land use that was originally used for agricultural activities to a different use, such as urban development, industry, or other purposes (Kocur-Bera & Pszenny, 2020; Long et al., 2021; Zhou et al., 2020). Agricultural land conversion can occur for several reasons, such as population growth, urbanisation, industrial development, and infrastructure needs (Ayele & Tarekegn, 2020; Göçoğlu & Göksu, 2024; Lee et al., 2020). To properly manage agricultural land conversion, careful planning, coordination between relevant sectors, and thorough evaluation of impacts are required (Chen et al., 2022; Pivello et al., 2021). This is important to ensure that environmental sustainability, food security and community welfare are maintained in the long term.

Government policies related to land conversion may vary depending on the country and context (Kurowska et al., 2020). However, in general, the purpose of these policies is to regulate
and control land use change from one function to another. Governments usually have spatial or land use plans that specify the desired land use in the long term (Liu & Zhou, 2021). These plans may include land zoning for agriculture, housing, industry, conservation, and so on. The government regulates land use change in accordance with the established spatial plan.

The government plays an important role in granting land use permits (Suwartana et al., 2022). The government has agencies or bodies responsible for processing and issuing such permits (Fatmawati et al., 2023). Before making a land use change, the landowner or developer must apply for a permit to the government and comply with the established requirements. In some cases, if a land use change occurs, the government may set an obligation for the landowner to compensate or replace the converted land. This aims to protect the rights of landowners and prevent land abuse or destruction. The government is also responsible for overseeing the implementation of land conversion policies.

The implementation of supervisory policies on agricultural land conversion has great urgency. Firstly, agricultural land is the main source of food production and food system sustainability (Liu & Zhou, 2021). In an era of rapid population growth and changing consumption patterns, maintaining sufficient and productive agricultural land is crucial to maintaining a country's food security (Pawlak & Kołodziejczak, 2020). Monitoring the conversion of agricultural land can ensure that these lands are not converted without careful consideration, thus avoiding a decline in food production and dependence on food imports.

In addition, conversion of agricultural land can also have a negative impact on the environment (Hasan et al., 2020). Agricultural land plays an important role in maintaining biodiversity, maintaining water and soil quality, and reducing greenhouse gas emissions. Strict supervision of agricultural land conversion can prevent ecosystem damage and damage ecological balance, thereby supporting environmental sustainability and human quality of life (Wei et al., 2023).

The implementation of supervisory policies on agricultural land conversion also involves social and economic aspects (Hidayati, 2020). Uncontrolled conversion of agricultural land can result in the loss of livelihoods of farmers and rural communities, and impact the vulnerability of the local economy. By monitoring the conversion of agricultural land, the government can ensure that economic sustainability and community welfare are maintained, while promoting sustainable economic growth (Yuslaini et al., 2023).

Understanding the urgency of implementing supervisory policies on agricultural land conversion, the government and relevant stakeholders can work together to protect agricultural land, ensure food security, maintain environmental sustainability, and pay attention to the welfare of the community. The government needs to establish clear regulations and policies related to the conversion of agricultural land. This includes regulations on the procedures, requirements and criteria for converting agricultural land. These regulations must consider the social, economic and environmental impacts of land conversion. The Government of Indonesia through Government Regulation (PP), No. 1, 2011, on the Determination and Conversion of Sustainable Food Agricultural Land shows a step forward to accommodate such issues.

This urgency is also observed from other regulations based on the South Sulawesi Provincial Regulation No. 4/2014 on the Protection of Sustainable Food Agricultural Land. The regulation has several clear and important objectives to protect and develop the food agriculture sector in a sustainable manner. In this endeavour, this regulation aims to maintain food agricultural areas and land to keep them functioning properly, as well as to ensure the availability
of food agricultural land in a sustainable manner.

In addition, this regulation aims to realise food independence, security and sovereignty for the community, by protecting farmers’ food agricultural land ownership rights, increasing the prosperity and welfare of farmers and the community, and empowering farmers as a whole. In addition to its social benefits, this regulation also seeks to increase decent and sustainable employment in the agricultural sector, while maintaining the ecological balance of nature and encouraging the revitalisation of agriculture for a better future.

In addition, there are other regulations such as Sidenreng Rappang Regional Regulation No. 9/2012 on the Protection of Sustainable Food Agricultural Land. Article 20 paragraph (1) stipulates that every owner of sustainable food agricultural land must utilise the land for the benefit of food agriculture and paragraph (2) land utilisation as referred to in paragraph (1) is carried out by planting seasonal food agricultural crops on irrigated land and non-irrigated land. And further Perda Number 5 of 2012 concerning the Regional Spatial Plan of Sidenreng Rappang Regency Article 4 paragraph (6) letter b stipulates that developing agricultural areas through the establishment and strict control of sustainable food agricultural land areas, development of intensification and extensification, utilisation of appropriate technology, development of production centres and agribusiness, horticultural development with processing of agricultural products.

The problem of agricultural land conversion also occurs in several regions in South Sulawesi, including Sidrap Regency. Based on data from the South Sulawesi Central Bureau of Statistics (BPS), during the last 10 years from 2010 to 2020 land conversion has occurred in several years. In 2010, 1,961 hectares of paddy fields were converted in Sidrap district. In 2016 in Sidrap as much as 188,325 hectares consisting of 48,076 hectares of paddy fields and 26,179 hectares of non-field land were converted. Then in 2017 the area of land converted in Sulawesi and Sidrap both from paddy fields and not from paddy fields had the same amount.

As a result, a lot of paddy fields, especially those located in urban areas, were converted to these uses. The reduction of agricultural land in Sidrap Regency has also been stated in the Sidrap Regency Strategic Plan 2018-2023, which explains that the increase in land conversion from agriculture to non-agriculture is not yet optimal for sustainable land protection and people still consider the property sector still has a higher economic value than agricultural cultivation areas.

Therefore, this research is very important to analyse how the implementation of agricultural land conversion policies in Sidrap Regency. The research questions are 1) how is preventive and repressive supervision in the implementation of the agricultural land conversion policy in Sidrap Regency? 2) what are the determinant factors in the implementation of the agricultural land conversion policy in Sidrap Regency?

METHOD

This research was conducted in Sidrap district, South Sulawesi. This research will analyse the policy implementation process carried out by the Sidrap Regency Government, especially the Department of Agriculture and Land Spatial Planning. The theory used in this research uses Edward III's theory of Policy Implementation: (1) Communication; (2) Resources; (3) Bureaucratic / Implementer Attitudes; (4) Organisational Structure.
This research uses qualitative research methods (Moleong, 2010). This research data was obtained from interviews, observations and relevant documents (Maulida, 2020). Then the data was coded and analysed by researchers using additional applications to get the best analysis and conclusions that can be a reference for future research. Nvivo 12 Pro was used for this qualitative research so that it could be visualised in the form of diagrams or images (Woolf & Silver, 2018).

RESULT AND DISCUSSION

Result

Preventive and repressive supervision in the implementation of agricultural land conversion policies in Sidrap Regency

In general, this research describes the problem by exploring aspects of policy implementation of Murhaini’s theory, (2014) namely supervision can also be examined based on the usefulness of the purpose of supervision, namely.

1) Preventive supervision which is carried out before work begins to be carried out, the aim is to prevent deviations from occurring.

2) Refresive Supervision is supervision carried out when the flow of activities has been completed. Technically carried out through performance audits by examining the implementation of the work.

Preventive regulation of agricultural land conversion is an important step in maintaining agricultural sustainability and food security of a region. This policy includes several main aspects, including regulation. Based on the results of the research, there are four important points that the government has implemented regarding the land conversion policy in Sidrap Regency regarding preventive arrangements including:

a) Regulation. Regarding regulations related to the Implementation of Local Government Supervision Policies on Agricultural Land Conversion in Sidrap Regency. The local government is considered very firm in implementing the policy of protecting sustainable agricultural land where the local government prohibits the conversion of productive agricultural land into other areas in Sidrap Regency.

b) Socialisation, which is conducted by the local government as an important component in the policy to monitor the conversion of agricultural land in Sidrap to increase public understanding and awareness, as well as to promote constructive participation and support the long-term success of the policy. The Sidrap District Government, through the Food Crops, Horticulture, Plantation and Food Security Office, has held a socialisation on the 2022 Sustainable Food Agricultural Land Protection Recommendation (RPLP2B). This socialisation was conducted with the aim of providing an understanding to the community regarding the importance of protecting sustainable food agricultural land in
the district.  

c) Licensing that every community that wants to convert agricultural land in Sidrap District is required to apply for a licence to the relevant agencies, such as the Agriculture Office, the Spatial Planning Office, or other institutions that have authority over land use.  

This licensing process is an important step taken by the local government in monitoring and regulating the conversion of agricultural land, and the Sidrap District government ensures that permits are granted in accordance with established requirements and criteria to protect agricultural sustainability. The Sidrap District Government is very concerned about the impacts that will occur if there will be a conversion of agricultural land, therefore careful consideration is needed.

Repressive supervision is an important instrument in maintaining compliance with regulations and keeping the community and stakeholders away from illegal or harmful land conversion practices. Based on the research results, there are four important points that the government has implemented regarding the land conversion policy in Sidrap Regency regarding repressive supervision, namely:  

a) Reprimand, The government, in this case the Agriculture Office, has prepared a special monitoring team that has a key role in carrying out repressive supervision of illegal land conversion. This team is tasked with monitoring and tracing reports or signs of unauthorised land conversion or violations of applicable regulations. This task involves identifying land that has been illegally converted, so that the community as the target group of every policy issued by the government will respect any warnings if violations occur in the field, as long as the policy is in accordance with the needs of the community as a whole.  

b) Sanctions In this case, the Sidrap District Government is very firm in implementing the policy on the conversion of agricultural land and does not tolerate people who commit violations, so anyone who commits a violation will be given sanctions such as confiscation of cultivated land. This confiscation of cultivated land will really be done if there are people who commit violations in the field, because things like this will greatly affect other communities.  

c) Enforcement, as one of the main aspects of enforcement, is to give a warning to the perpetrator of the violation as a first step. The monitoring team that has been formed by the local government plays a role in monitoring and tracing violations of land use change. An initial reprimand is given to the perpetrator to provide an opportunity to comply with the rules without having to face more severe sanctions. However, if this warning is ignored, the government can issue a formal warning to the relevant parties.  

**Determinant factors in the implementation of agricultural land conversion policies in Sidrap District**
This research also elaborates on the problem by exploring the policy implementation aspects of Georgeo C. Edward III's theory on the Implementation of Local Government Supervision Policies Towards Agricultural Land Conversion in Sidrap Regency:

a) Communication behaviour or determining the success of achieving the objectives of implementing or implementing a program or policy (Mansur, 2021). Communication in this study is a very important factor as a deep central role or backbone that connects all stakeholders involved in implementing the implementation of land use change control policies in Sidrap Regency, such as:

- Transmission, indispensable in encouraging stakeholder participation is a wise move. It helps in evaluating whether the messages and guidance conveyed have achieved their objectives and if not, identifying areas that need improvement. Thus, information transmission is not only part of effective monitoring but also the foundation for building stakeholder understanding and support in safeguarding agricultural land.
- Information clarity, as a key element in the running of a land use change monitoring policy in Sidrap District in encouraging active participation for stakeholders, however, challenges in maintaining information clarity can also arise, especially in the context of information access that is still uneven throughout the region.
- Consistency, in Sidrap District so far landowners, farmers, as well as the general public need to have a uniform understanding of the urgency of maintaining agricultural land and the consequences of uncontrolled land conversion. When information conveyed by the local government and related agencies is consistent, these messages will be more easily absorbed by the community.

b) Resource behaviour is an important factor for effective programme implementation (Cahyadi et al., 2023). Resources in this study are one of the key factors that are highly relevant in maintaining the integrity of agricultural land, ensuring compliance with regulations, and avoiding offences that could threaten food security in the region, namely:

- Employees, employee resources are an important role in the implementation of the agricultural land conversion policy in Sidrap district, the Sidrap district government is quite good in the field of employee resources which researchers see as very capable and superior in carrying out various activities in the field.
- Finance is the key to implementing the policy smoothly, the Sidrap Regency government in the context of the implementation of the policy on conversion of allocated agricultural land is adequate, but researchers found several obstacles that occurred in the field based on the stories of the community as recipients of the policy.
- Facilities and Infrastructure as supporting resources for the implementation of a policy, the Sidrap Regency government still lacks the facilities and infrastructure needed by employees and recipients of agricultural land conversion policies.
c) Behavioral disposition or attitude or commitment of implementing officials towards the program, especially from program implementers or especially the government bureaucracy (Aprilia, 2024). Disposition is the appointment of bureaucracy and intensive provision. According to researchers' findings, this factor has a quite significant impact.

- The appointment of a quality bureaucracy is the main foundation for every policy implementation, but what is happening in the field is that there are still several bureaucracies (government employees) whose duties are not optimal in socializing the policy of transferring land fees to the people of Sidrap Regency.
- The incentives given to employees also have an important role in maintaining their motivation and performance. Incentives can be in the form of awards or bonuses for good performance in carrying out tasks related to land conversion policies. This kind of incentive can be an encouragement for employees to carry out their duties with full dedication and contribute positively to policy implementation. On the other hand, the absence of incentives or a poor incentive system can reduce employee motivation and hinder effective implementation.

d) Bureaucratic structure behavior or those related to the suitability of the organization to implement public policy (Yuliah, 2020). Regarding the Implementation of Regional Government Supervision Policies on the Transfer of Agricultural Land Transfers in Sidrap Regency. Bureaucratic Structure according to researchers' findings regarding the bureaucratic structure in Sidrap Regency can be seen through:

- SOPs are guidelines or rules that regulate how a task or process must be carried out in a bureaucratic context (Saputro et al., 2024). In implementing agricultural land conversion policies, clear and well-defined SOPs are very important. Good SOPs ensure that every step in implementing policies is carried out consistently and in accordance with applicable regulations. This also helps in avoiding potential violations or errors that could occur due to unclear procedures (Andrianto & Noviani, 2021). Therefore, creating, updating and monitoring relevant and effective SOPs is a key step in maintaining smooth and compliance in the implementation of land conversion policies. SOP (Standard Operating Procedure), the Sidrap Regency government is very careful in implementing SOPs to avoid various discrepancies in implementing policies, especially those that will have an impact on the surrounding community.
- The fragmentation (division of tasks) of involvement of all stakeholders or institutions in Sidrap Regency has had a significant impact on improving the quality of policies. Fragmentation of tasks in bureaucratic structures also has a significant impact (Yulina et al., 2021). Sidrap Regency may have various institutions or agencies involved in implementing agricultural land conversion policies, such as the Agriculture Service, the Environment Service, or the National Land Agency. The Agriculture Service has the task of carrying out government affairs in the agricultural sector, while the Environment Service
has the task of assisting the government in carrying out Government affairs in the environmental sector as well as assistance tasks given to the Regions. The duties of the National Defense Agency are in accordance with Article 419 of the ATR/K BPN Ministerial Regulation Number 16 2020 concerning the Organization and Work Procedures of the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency, the Directorate of Land Rights Control, Land Function Transfer, Islands and Certain Regions has the task of carrying out the formulation and implementation of policies and programs, preparing norms, standards, procedures, criteria, implementation controlling, and providing technical guidance and supervision, as well as implementing monitoring, evaluation and reporting in the field of land rights control, land conversion, islands and certain areas.

A clear division of tasks between these institutions is very important. This ensures that each agency is responsible for a specific part of policy implementation and that there is no overlap or confusion in responsibilities. Good fragmentation also allows efficient coordination between these institutions, so that policy implementation can run smoothly. In implementing the agricultural land conversion policy in Sidrap Regency, the determinant factors that emerge in the bureaucratic structure, as depicted in Figure 1, show two main aspects, namely "SOP" (Standard Operating Procedure) with a score of 7 and "Fragmentation (division of tasks) " with a score of 6. The "SOP" factor highlights the importance of having clear and standardized operational guidelines in implementing policies, which can improve coordination and consistency.

Figure 1. Determinant factors in the context of bureaucratic structure in the implementation of agricultural land conversion policies. Source: Processed by researchers using Nvivo 12 Plus, 2023.

The findings of the determinants of bureaucratic structure in the implementation of agricultural land conversion policy in Sidrap District, as shown in Figure 1, have some significant implications. The high score on ‘SOP’ (Standard Operating Procedure) indicates that the success of policy implementation is highly dependent on the clarity of operational guidelines.

On the other hand, the ‘Fragmentation’ factor shows that proper and effective division of tasks between bureaucratic units or sectors is also crucial in ensuring sustainability and efficiency.
of implementation. The implication is that it needs to be emphasised that the successful implementation of the agricultural land conversion policy in Sidrap Regency depends on the implementation of good SOPs and optimal coordination through a structured division of tasks within the bureaucratic structure. Overall, these findings provide strategic insights for relevant parties to improve the effectiveness of policy implementation by focusing on improving SOPs and improving supportive bureaucratic structures.

Analysing other determinant factors is also important to consider. The second-ranked resources indicate that the availability of resources, including funds, personnel, and infrastructure, plays a key role in supporting policy implementation. Therefore, it is necessary to have an effective strategy for resource allocation and management in order to maximally support policy implementation measures. Disposition and organisational structure also have a significant influence, emphasising the importance of bureaucratic appointment policies, incentives, and improving SOPs to ensure the readiness and efficiency of the bureaucracy in implementing policies.

**Figure 2.** Overall determinant factors in the implementation of agricultural land conversion policies. Source: Processed by researchers using Nvivo 12 Plus, 2023.

Figure 2 which illustrates the overall determinant factors in the implementation of the agricultural land conversion policy in Sidrap District shows that ‘Communication’ has the highest score of 15, followed by ‘Resources’ with a score of 13, ‘Disposition’ with a score of 11, and ‘Organisational Structure’ with a score of 9. The high score on ‘Communication’ indicates that this aspect has a dominant influence on the successful implementation of the policy. Therefore, it is necessary to emphasise the importance of strengthening the communication system among stakeholders to ensure a clear and consistent understanding of the agricultural land conversion policy.
The implications of these findings have a significant impact on the formulation and implementation of future agricultural land conversion policies in Sidrap Regency. By understanding that ‘Communication’ and ‘Resources’ factors dominate, the local government and relevant agencies can design more focused strategies to improve communication and optimise resource allocation in order to support the implementation of the policy. Improvements in the communication system, including strengthening inter-agency coordination and effective information delivery to the public, will help ensure better understanding of the agricultural land conversion policy.

Furthermore, the emphasis on the ‘Resources’ aspect indicates the need for increased investment and efficient management of funds, personnel and infrastructure that support policy implementation. Local governments can direct attention and budgets towards improving the availability of these resources, which will contribute to the successful and sustainable implementation of the farmland conversion policy. This implication also provides a basis for relevant parties to formulate a more responsive and targeted policy development strategy in order to respond to the dynamics and changing needs in the agricultural sector in Sidrap District in the future.

Overall, the findings of this study illustrate how determinant factors, which include communication, resources, disposition, and bureaucratic structure, play a role in the implementation of agricultural land conversion policies in Sidrap District. Effective policy implementation requires good coordination between these factors to achieve the policy objectives, namely the preservation of agricultural land and the desired food security.

CONCLUSION

The implementation of the policy to monitor the conversion of agricultural land in Sidrap District includes several approaches, namely preventive and repressive, which have an important role in maintaining the integrity of agricultural land and preventing violations of land conversion. The preventive approach emphasises proactive efforts to prevent land conversion violations. On the other hand, the repressive approach plays an important role in enforcing regulations and providing consequences to offenders. Surveillance teams, warnings, formal warnings, sanctions and enforcement are instruments used to ensure compliance with regulations. However, if warnings go unheeded, formal warnings and severe sanctions can be applied, including land confiscation.

In addition, other determinant factors also play an important role in the implementation of land conversion policies in Sidrap District. Communication factors play a key role in ensuring proper understanding of the policy, while resources, such as qualified human resources, adequate budget and technical equipment, enable effective supervision. Disposition, which involves appointing a competent bureaucracy and appropriate incentives, becomes an important element in implementing the policy. Finally, the bureaucratic structure, with clear SOPs and proper division of tasks, helps maintain the efficiency and effectiveness of policy implementation.

Overall, the implementation of the agricultural land conversion supervision policy in Sidrap District is a holistic endeavour that combines preventive and repressive approaches by taking into account the interrelated determinant factors. With stronger communication, smart resource
allocation, appropriate bureaucratic appointments, and efficient bureaucratic structures, Sidrap district hopes to maintain agricultural sustainability and food security in the region.

This research can contribute to future research, especially in land utilisation and land conversion for development needs. It can also be reviewed from environmental and policy aspects. This research also contributes to the government in providing some considerations in formulating a policy in the aspect of land conversion in order to pay attention to sustainable environmental, social aspects. The limitation of this research is that it only examines one region or district, so that future research can conduct comparative research in various districts in Indonesia.

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