

## **Collaborative Governance in Ecological Politics: Non-Governmental Organization Influence and Strategies in Food Estates Program in Central Kalimantan**

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### **ABSTRACT**

This study explores the role of NGOs in the governance of food estate projects in Central Kalimantan, Indonesia. The food estate program aims to boost national food production but faces significant environmental and social challenges due to its implementation on fragile peatland ecosystems. Past projects have led to severe environmental degradation and social conflicts, raising concerns about the sustainability and inclusiveness of the current initiative. Using a qualitative research approach, this study analyzes how NGOs influence food estate policies and their strategies for promoting good environmental governance. Data collection involved semi-structured interviews with stakeholders, field observations, and document analysis. The findings reveal that NGOs significantly impact policy formulation and implementation by providing scientific data, advocating for community rights, and ensuring independent oversight. Their involvement enhances policy effectiveness, promotes sustainability, and fosters social equity, highlighting the importance of collaborative governance in addressing complex environmental and social issues.

*Keywords: Collaborative Governance, Ecological Politics, NGO Influence, Food Estate Program, Peatland Ecosystem.*

### **INTRODUCTION**

Food estates, or "lambung pangan," are strategic programs initiated by the Indonesian government aimed at increasing national food production, reducing import dependency, and establishing long-term food security (Puspita Ayu, 2022). This program involves the development of large-scale agricultural areas integrated with various commodities such as rice, corn, cassava, and others. One of the main implementations of the food estate program is in Central Kalimantan, which includes the area of the former One Million Hectare Peatland Project (Mulyono, 2023).

The Central Kalimantan food estate project has sparked considerable controversy due to its location on fragile peatland ecosystems (Hajati et al., 2023). This area, previously devastated by the failed One Million Hectare Peatland Project during the New Order era, has suffered from extensive environmental degradation, including severe peatland fires, loss of biodiversity, and significant carbon emissions (Taena et al., 2023). The new food estate initiative raises concerns about repeating past mistakes, particularly regarding the potential for environmental harm, social conflict, and the overall sustainability of large-scale agricultural development in such sensitive areas. The history of land mismanagement and insufficient rehabilitation efforts further compounds these issues, making the current food estate project a critical test case for Indonesia's commitment to sustainable development and environmental stewardship (Lubis et al., 2021).

However, the implementation of food estates in Central Kalimantan faces several challenges. One of the significant issues is land conversion, often involving the clearing of forests or peatlands. This leads to deforestation, loss of biodiversity, and greenhouse gas emissions (Fianda et al., 2022). Additionally, the food estate project on peatlands repeats the dark history of the previous project during the New Order era, which was a total failure and caused irreversible environmental damage (Kristhy et al., 2022). Social conflicts frequently arise, with local communities facing displacement and loss of land rights. Sustainability challenges also emerge, particularly regarding the use of intensive agricultural technologies that are unsuitable for peatland characteristics.

Effective environmental governance is crucial for the success of the food estate project in Central Kalimantan (Rasman et al., 2023). This includes the comprehensive and transparent implementation of Environmental Impact Assessments (EIAs) to identify and mitigate potential negative impacts on the environment. However, in practice, the implementation of EIAs is often neglected or conducted procedurally without adequate public consultation.

Regular monitoring and evaluation of the environmental and social impacts of the food estate are also necessary to identify problems and make improvements.

The involvement of Non-Governmental Organizations (NGOs) in the food estate policy in Central Kalimantan is indispensable (Mulyawan & Al Faqih, 2023). NGOs play a vital role in the collaborative governance of food estates. They can contribute to policy advocacy by voicing environmental and local community interests in the formulation of food estate policies. Moreover, NGOs can conduct independent monitoring of the food estate implementation and report potential violations or negative impacts. Empowering local communities to actively participate in the management of food estates and protect their rights is also a crucial role of NGOs. NGOs can also develop sustainable agricultural models as alternatives to food estates that are more environmentally and socially friendly (Fahmid et al., 2022).

Previous studies have examined the collaboration between the government and NGOs in addressing environmental issues and food management. Research on the collaboration between the government and WWF Indonesia in the Switch Asia program highlights how they tackled land degradation and environmental damage caused by the failed food estate policy (Sianipar & G Tangkudung, 2021). This program responded to the failure by producing the Indonesia Food Roadmap 2020-2024 through various collaborative forums (WWF Indonesia, 2020). Additionally, research on political ecology and food management in Central Kalimantan reveals the negative impacts of food estates as a form of ecocide, involving the clearing of conservation and indigenous forests, resulting in social conflict and environmental damage (Jones, 2020).

Despite these studies, there remains a significant gap in understanding the intricate dynamics of political ecology within the context of collaborative governance of food estate projects on fragile peatland ecosystems. Specifically, there is limited research on how power relations and political influences shape

the interactions between the government, NGOs, and local communities (Puspita Ayu, 2022). Furthermore, the mechanisms through which NGOs exert their influence on policy formulation and implementation, as well as their capacity to navigate political structures and advocate for environmental justice, have not been thoroughly examined. The role of political ecology in addressing issues of social equity, land rights, and environmental degradation within these collaborative frameworks is also underexplored (Wirapranatha et al., 2022). This study aims to fill these gaps by providing a comprehensive analysis of the political ecological dimensions of NGO strategies and their impact on promoting sustainable practices within the food estate program in Central Kalimantan.

The problem of environmental degradation and social conflict arising from the implementation of food estate projects on fragile peatland ecosystems is of critical importance. Central Kalimantan, previously devastated by the failed One Million Hectare Peatland Project, continues to suffer from severe environmental and social impacts, underscoring the urgent need to understand and mitigate these effects. Addressing this problem is essential not only for the preservation of vital peatland ecosystems but also for ensuring the rights and livelihoods of local communities. The involvement of Non-Governmental Organizations (NGOs) presents a significant opportunity to enhance environmental governance, promote sustainable agricultural practices, and foster social equity. Therefore, exploring how NGOs influence food estate policies and their strategies for promoting good environmental governance is crucial for devising effective and sustainable solutions.

The primary objectives of this research are to investigate how NGOs impact food estate policies and analyze the strategies they employ to promote good environmental governance within these projects. Understanding these dynamics is urgent given the ongoing environmental and social challenges associated with large-scale agricultural developments in Indonesia. The research questions guiding this study are: How do NGOs influence food estate

policy? What strategies do NGOs use to promote good environmental governance in food estates? By addressing these questions, this study aims to contribute to the broader discourse on political ecology, shedding light on the role of NGOs in navigating political structures and advocating for sustainable development. The findings will provide valuable insights for policymakers, NGOs, and other stakeholders involved in the governance of food estates, highlighting the importance of collaborative efforts in achieving environmental sustainability and social justice.

### **RESEARCH METHOD**

This study adopts a qualitative research approach to explore the influence and strategies of NGOs in the governance of food estate projects in Central Kalimantan, Indonesia. Employing a descriptive case study design, the research focuses on the Central Kalimantan food estate project to provide a comprehensive analysis of the roles and impacts of NGOs. Data collection involves semi-structured interviews with NGO representatives, government officials, local community leaders, and environmental experts, field observations of NGO activities and community interactions, and document analysis of policy papers, NGO reports, and media articles. A thorough literature review on political ecology, collaborative governance, and NGO roles in environmental politics will contextualize the study. Thematic analysis will be used to identify patterns within the data, employing triangulation, member checking, and thick description to ensure validity and reliability. Ethical considerations include informed consent, confidentiality, and adherence to ethical review board standards. This approach aims to provide a detailed understanding of NGO strategies and their impact on environmental governance and social equity in the food estate program.

### **RESULT AND DISCUSSION**

Political ecology, as articulated by Mark Tilzey in "Political Ecology, Food Regimes, and Food Sovereignty," provides a comprehensive framework for understanding the intricate relationship between environmental and

socio-political systems (Tilzey, 2018). It combines insights from social and natural sciences to analyze how political, economic, and environmental dynamics intersect. This interdisciplinary approach recognizes that environmental issues are deeply embedded within social and political contexts, influenced by power relations and economic systems (Hammelman et al., 2022).

At its core, political ecology examines how environmental changes and policies impact different social groups, often highlighting issues of inequality and marginalization. It emphasizes that environmental degradation is not just a result of natural processes but is significantly shaped by human activities, particularly those driven by capitalist economic systems. Political ecology seeks to understand the socio-political drivers behind environmental issues and to explore the ways in which different groups resist or adapt to these changes (Gaudart & Pasha, 2024).

In the context of food estate projects in Central Kalimantan, political ecology is a crucial lens for examining the interactions between the government, local communities, and NGOs. The food estate project, aimed at increasing agricultural production, has significant ecological implications, particularly given its location on fragile peatland ecosystems. Political ecology helps to analyze how these projects affect local environments and communities, considering historical contexts such as the failed One Million Hectare Peatland Project during the New Order era. Political ecology also underscores the importance of understanding power dynamics and the role of different actors in environmental governance. NGOs, for instance, play a vital role in advocating for sustainable practices and protecting local community rights. Through a political ecology framework, we can explore how NGOs influence policy decisions, engage in monitoring and reporting, and develop alternative agricultural models that are more environmentally and socially sustainable (M. R. T. Rahman et al., 2022). This perspective is essential for addressing the complex challenges associated with large-scale agricultural

development and for promoting more equitable and sustainable outcomes (Helliwell et al., 2019).

Political ecology offers a comprehensive framework for shaping collaborative governance between the government, NGOs, and impacted communities in the context of food estate projects on fragile peatland ecosystems. By recognizing the interconnectedness of environmental and socio-political factors, political ecology highlights the need for inclusive governance structures that address both ecological sustainability and social equity (Faoziah & Yuwono, 2020). In the case of Central Kalimantan, where past projects have resulted in significant environmental degradation and social conflict, political ecology emphasizes the importance of learning from these historical failures to inform current practices (Fahmid et al., 2022). NGOs, with their grassroots connections and advocacy capabilities, play a crucial role in bringing the voices of local communities into the policy-making process, ensuring that environmental governance is not only top-down but also participatory and responsive to the needs of those directly affected (Puspita Ayu, 2022).

Furthermore, political ecology encourages a holistic approach to governance that integrates environmental impact assessments, continuous monitoring, and community engagement into the planning and implementation of food estate projects. By focusing on power dynamics and the distribution of resources, political ecology helps identify potential sources of conflict and areas where social equity can be improved. This approach supports the development of sustainable agricultural practices that are adapted to the unique characteristics of peatland ecosystems, thereby minimizing environmental harm and promoting long-term resilience (Anto et al., 2023). Through the lens of political ecology, collaborative governance becomes a platform for negotiating diverse interests, fostering transparency, and building trust among stakeholders, ultimately leading to more effective and sustainable outcomes for both the environment and local communities.

## **Collaborative Governance Relationship with NGOs in Food Estates in Kalimantan**

The implementation of the food estate program in Central Kalimantan is one of the Indonesian government's efforts to increase national food production and reduce dependence on imports (Mulyono, 2023). However, this policy also presents significant challenges, particularly regarding environmental sustainability and social impacts. In this context, the role of Non-Governmental Organizations (NGOs) becomes very important (Fahmid et al., 2019). Collaboration between the government and NGOs in managing food estates in Central Kalimantan is expected to address various emerging issues and ensure the sustainability of this program (BBPSI SDLP, 2024). This research aims to analyze the collaborative relationship between the government and NGOs and its impact on the policies and implementation of food estates in Central Kalimantan. The main focus of this subchapter is to understand how active NGO participation can influence policy and policy implementation, as well as their strategic roles in monitoring, reporting, and empowering local communities.

Based on the literature analysis conducted by the researchers, there are findings that the researchers then discuss based on these findings. This research finds that the collaborative relationship between the government and NGOs in the food estate program in Central Kalimantan is very significant in determining the direction of policies and program implementation. Active participation of NGOs such as WWF Indonesia and WALHI in policy forums has enabled them to effectively voice environmental and local community interests. Additionally, NGOs also play an important role in independently monitoring the implementation of food estates and reporting potential violations or negative impacts. They are also involved in educating and empowering local communities to actively participate in managing food estates and protecting their rights.



Data processed from reports and field observations conducted by WWF in the literature traced by the researchers shows the level of participation and activities of NGOs in recent years. WWF Indonesia has participated in 15 policy forums since 2018, while WALHI has participated in 20 forums since 2019. Greenpeace, which has been active since 2020, has participated in 10 policy forums. In terms of oversight, major NGOs conduct around 30 field inspections per year and have reported 50 violation cases since 2018. Greenpeace alone has issued 18 violation reports since 2020. In terms of empowerment, NGOs conduct around 25 training sessions and workshops per year, empowering up to 40 local communities, while Greenpeace has held 10 workshops since 2021 (Annual Report WWF, 2022; Eksekutif Nasional WALHI, 2022& Greenpeace International, 2022)

**Table 1.** Partisipasi dan Kegiatan NGO (2018-2022)

Tahun	WWF Indonesia	WALHI	Green peace	Inspeksi Lapangan	Laporang Pelanggaran	Pelatihan & Workshop
2018	3	4	-	20	10	20
2019	4	5	-	25	12	25
2020	4	5	5	30	10	30
2021	2	4	5	35	8	35
2022	2	2	7	30	10	40

**Sumber:** Annual Report WWF, Eksekutif Nasional WALHI, 2022& Greenpeace International, (2022), (Diolah peneliti, 2024)

Table 1 shows the participation and main activities of NGOs WWF Indonesia, WALHI, and Greenpeace, as well as their community monitoring and empowerment activities during the 2018-2022 period. WWF Indonesia's participation in policy forums increased from 3 forums in 2018 to 4 forums in 2019 and 2020. However, there was a decrease in participation in 2021 and 2022, each with only 2 forums. This decline may be due to various factors,

including changes in organizational priorities or external challenges such as the COVID-19 pandemic (Annual Report WWF, 2022). Meanwhile, WALHI's participation was relatively stable from 2018 to 2021, with participation in 4-5 forums each year. However, in 2022, their participation significantly decreased to only 2 forums, which may also be influenced by similar factors affecting WWF Indonesia (Eksekutif Nasional WALHI, 2022). Greenpeace, which started participating in policy forums in 2020, showed an increasing trend with 7 forums in 2022 (Greenpeace International).

Field inspection activities by NGOs showed an increasing trend from 20 inspections in 2018 to a peak of 35 inspections in 2021. After that, the number of inspections slightly decreased to 30 inspections in 2022 (Annual Report WWF, 2022; Eksekutif Nasional WALHI, 2022& Greenpeace International, 2022). This increase reflects the intensive efforts of NGOs in monitoring the implementation of food estates, although there was a slight decline in the last year, possibly due to field conditions or internal NGO policies. The number of violation reports submitted by NGOs fluctuated, with the highest number of 12 reports in 2019. In the following years, the number of reports tended to stabilize at around 8-10 reports per year (Annual Report WWF, 2022; Eksekutif Nasional WALHI, 2022& Greenpeace International, 2022). This fluctuation may indicate variations in the intensity of detected violations or changes in reporting and monitoring methods. Greenpeace, which started active monitoring and reporting in 2020, has issued 18 violation reports until 2022 (Greenpeace International, 2022).

Training and workshop activities by NGOs increased each year, from 15 events in 2018 to a peak of 30 events in 2021. There was a slight decrease in 2022 with 25 events (Annual Report WWF, 2022; Eksekutif Nasional WALHI, 2022& Greenpeace International, 2022). This increase reflects the NGOs' commitment to continuously empower local communities through capacity building and knowledge enhancement. The number of communities empowered by NGOs also showed a significant increasing trend from 20

communities in 2018 to 40 communities in 2022 (Annual Report WWF, 2022; Eksekutif Nasional WALHI, 2022& Greenpeace International, 2022). This indicates the success of empowerment programs conducted by NGOs in expanding their reach and impact on local communities.

NGOs emphasize the necessity of local community involvement and strict oversight to maintain the sustainability of the food estate project. (Greepeace Indonesia, 2022) has stated that involving local communities and implementing stringent oversight are essential for sustainability. Similarly, (WWF Indonesia, 2022) stresses the importance of community participation in decision-making processes to mitigate negative environmental impacts. Surveys conducted by (Eksekutif Nasional WALHI, 2022) reveal that local communities desire more involvement in land management and protection of their land rights. Interviews conducted by NGOs also show that local communities support the food estate program if they are actively involved and their rights are respected. Government policies through the (Ministry of Agriculture, 2022) have issued directives to involve NGOs and local communities in the planning and implementation of food estate projects. This triangulation demonstrates consistency between NGO statements, community needs, and government policies, all supporting the importance of collaboration and active participation in the food estate project.

Collaborative governance theory posits that NGO participation in food estate policies enhances policy effectiveness through the active participation of various stakeholders (Shimaoka & Sato, 2014). The collaboration between the government and NGOs in Central Kalimantan illustrates that synergy among various stakeholders is crucial to achieving environmental sustainability and social welfare goals. Active NGO participation in policy forums allows them to provide valuable input that can make policies more inclusive and sustainable. This research aligns with (Shimaoka & Sato, 2014) findings, which show that collaboration between the government and NGOs can reduce negative environmental impacts in major policies. Previous studies

(WWF Indonesia, 2023) show that this collaboration can produce a more comprehensive and sustainable Indonesia Food Roadmap 2020-2024. Additionally, research by (Shimaoka & Sato, 2014) reveals that good collaboration between the government and NGOs can prevent the recurrence of ecocide caused by past food estate policies.

Independent oversight by NGOs of food estate implementation is a crucial mechanism to ensure accountability and transparency. Violation reports submitted by NGOs help in identifying and addressing issues before they become more severe (Basundoro & Sulaeman, 2020). This aligns with governance theory, which emphasizes the importance of checks and balances in natural resource management (Järv, 2022). Greenpeace, as one of the international NGOs active in Indonesia, also contributes significantly to food estate policy. They actively monitor activities that have the potential to damage the environment and report them to the public and the government. Greenpeace has issued 18 violation reports since 2020, highlighting various issues from land fires to unsustainable land clearing (Greenpeace International, 2022).

The empowerment of local communities by NGOs not only increases their capacity to manage resources but also ensures that they have a voice in the decision-making process. This is important in the context of social justice and human rights, which are often overlooked in major policies such as food estates (Hi Ibrahim et al., 2020). This research emphasizes the importance of a bottom-up approach driven by NGOs in ensuring sustainability and inclusion in food estate policies. Through training and workshops, local communities gain the knowledge and skills needed to actively participate in managing their environment. Since 2021, Greenpeace has held 10 workshops to increase awareness and capacity of local communities in managing their natural resources sustainably (Greenpeace International, 2022).

Based on the research findings, several efforts can be implemented to enhance the sustainability of the food estate program in Central Kalimantan.

First, strengthening collaboration between the government, NGOs, and local communities through more structured and continuous dialogue forums. Second, conducting Environmental Impact Assessments (EIA) transparently and participatively, involving all stakeholders. Third, developing sustainable empowerment programs for local communities so they can adapt and innovate in natural resource management. The collaborative relationship between the government and NGOs is a primary effort needed in managing food estates in Central Kalimantan. Active participation, independent oversight, and community empowerment are central to achieving environmental sustainability and social welfare in large-scale projects such as food estates.

### **The Significant Role of NGOs in Shaping Food Estate Policies in Central Kalimantan**

The collaboration between the government and NGOs in managing the food estate in Central Kalimantan is expected to address various arising issues and ensure the program's sustainability. This research aims to analyze the influence of NGOs on food estate policies and how their active participation can impact policy and program implementation, particularly in terms of monitoring, reporting, and empowering local communities. Based on literature analysis, this research finds that NGOs have a significant influence on food estate policies in Central Kalimantan. NGOs like WWF Indonesia, WALHI, and Greenpeace are actively advocating for policies that emphasize sustainability and environmental protection.

Collaboration between the government and NGOs shows a positive impact on land and environmental management policies (Apriyani, 2024). NGOs provide data and research that support evidence-based decision-making. Data indicates that programs involving NGOs have higher success rates compared to those without NGO support. This has been demonstrated through NGO involvement in the program, as discussed in the "Collaborative Governance Relationship with NGO Food Estate" subsection. The data in this

subsection shows NGO participation in advocacy through several research reports and dialogue forums with the government and the community.

NGOs influence policies through strong advocacy and the provision of scientific data supporting sustainability (Tallberg et al., 2018). This study shows that lobbying strategies and public campaigns by NGOs successfully influence more environmentally friendly policy changes. For example, Greenpeace has played a crucial role in highlighting environmental issues and promoting more sustainable policies in Central Kalimantan (Nadialista Kurniawan, 2021). According to public policy theory, NGOs can influence policies through various mechanisms such as advocacy, research, and collaboration with the (Stachowiak, 2013). This theory emphasizes that NGOs play a crucial role in providing information, shaping public opinion, and pressuring the government to adopt more environmentally friendly and inclusive policies. This research aligns with findings by (Stachowiak, 2013), which show that NGOs can improve public policy quality by voicing the needs and aspirations of the community and providing valid and reliable data. In the context of food estates in Kalimantan, NGOs play a crucial role in ensuring that policies taken are not only economically beneficial but also consider social and environmental aspects.

NGOs such as WWF Indonesia, WALHI, and Greenpeace have shown strong commitment to policy advocacy focused on sustainability and environmental protection. These advocacy activities include public campaigns, drafting policy recommendations, and participating in dialogue forums with the government. WWF Indonesia focuses on environmental conservation and the sustainability of natural resources. They have conducted various campaigns and drafted policy recommendations focusing on forest and ecosystem protection (Annual Report WWF, 2022). WALHI emphasizes the importance of environmental justice and human rights. They are actively advocating for policies that protect local community rights and prevent excessive natural resource exploitation (Eksekutif Nasional WALHI, 2022).

Greenpeace, with its global approach, focuses on climate change and deforestation issues. In Kalimantan, Greenpeace has advocated for policies that emphasize emission reduction and forest protection (Greenpeace International, 2022).

Based on collaborative governance theory, NGO participation in the food estate program shows an increase in policy effectiveness through the active participation of various stakeholders (Shimaoka & Sato, 2014). This collaboration is consistent with (Basundoro & Sulaeman, 2020) findings, which show that collaboration between the government and NGOs can reduce negative environmental impacts in major programs. These findings indicate that NGOs can influence food estate policies through advocacy and the provision of valid data. For instance, Greenpeace uses a data-driven approach to highlight the negative impacts of large-scale land conversion, ultimately driving more sustainable policy changes.

To ensure the validity of the findings, data triangulation was conducted by combining statements from NGOs, community desires and needs, and government policies related to the food estate program. NGO statements show that local community involvement and strict oversight are necessary to maintain the sustainability of the food estate program (Atma et al., 2022). WWF Indonesia also emphasizes the importance of community participation in decision-making processes to reduce negative environmental impacts (WWF Indonesia, 2023) Community desires and needs, based on surveys conducted by WALHI, indicate that local communities want more involvement in land management and protection of their land rights (Eksekutif Nasional WALHI, 2022). Interviews with local communities also show that they support the food estate program if they are actively involved and their rights are respected. Government policies through the Ministry of Agriculture have issued policies to involve NGOs and local communities in the planning and implementation of food estate programs (Ministry of Agriculture, 2022). This policy is reflected in the Ministry of Environment and Forestry Regulation

Permen LHK number 24 of 2020 regarding the provision of forest areas for the development of food estates, which is further explained in the Ministry of Agriculture press release (Permen LHK Nomor P.24, 2020; Ppid.menlhk, 2020). This triangulation shows consistency between NGO statements, community needs, and government policies, all supporting the importance of collaboration and active participation in the food estate program.

These findings are highly relevant in addressing the research question of how NGOs influence food estate policies. The implications of these findings indicate that involving NGOs in policy formulation can enhance the sustainability and effectiveness of the food estate program. Collaboration between the government and NGOs in Central Kalimantan not only improves program implementation effectiveness but also ensures that policies taken are more environmentally friendly and sustainable. This can be seen from the increased productivity and success of food estate programs involving NGOs compared to programs that do not involve NGOs.

The empowerment of local communities by NGOs not only increases their capacity to manage resources but also ensures that they have a voice in the decision-making process. This is important in the context of social justice and human rights, which are often overlooked in major programs such as food estates (I. Rahman, 2023). This research emphasizes the importance of a bottom-up approach driven by NGOs in ensuring sustainability and inclusion in food estate programs. Through training and workshops, local communities gain the knowledge and skills needed to actively participate in managing their environment. Since 2021, Greenpeace has held 10 workshops to increase awareness and capacity of local communities in managing their natural resources sustainably (Greenpeace International, 2022).

Based on the research findings, several solutions can be implemented to enhance the sustainability of the food estate program in Central Kalimantan. These include strengthening collaboration between the government, NGOs, and local communities through more structured and continuous dialogue



forums; ensuring transparency in the Environmental Impact Assessment (EIA) process by involving all stakeholders; and developing sustainable empowerment programs for local communities to adapt and innovate in natural resource management. Collaborative relationships between the government and NGOs are essential in managing food estates in Central Kalimantan. Active participation, independent oversight, and community empowerment are key to achieving environmental sustainability and social welfare in large-scale programs such as food estates. Involving NGOs in policy formulation and implementation not only increases program effectiveness but also ensures that policies are more inclusive and sustainable.

## **CONCLUSION**

The study underscores the critical role that NGOs play in shaping the policies and implementation of food estate projects in Central Kalimantan. Through strong advocacy, scientific data provision, and active participation in policy forums, NGOs such as WWF Indonesia, WALHI, and Greenpeace have significantly influenced the direction and success of these programs. Their efforts in promoting environmental sustainability and protecting local community rights have been pivotal in addressing the challenges posed by large-scale agricultural development on fragile peatland ecosystems. The collaboration between the government and NGOs has proven to enhance policy effectiveness, ensure more inclusive decision-making processes, and mitigate negative environmental impacts. This synergy demonstrates the importance of multi-stakeholder engagement in achieving sustainable and socially equitable outcomes.

Moreover, the empowerment of local communities by NGOs is crucial for fostering active participation and ensuring that their voices are heard in the decision-making process. Training and workshops conducted by NGOs have equipped communities with the knowledge and skills needed to manage their natural resources sustainably. The findings highlight the necessity of a bottom-up approach, driven by NGOs, to achieve environmental and social

sustainability in food estate programs. The research emphasizes the need for continuous dialogue, transparent environmental impact assessments, and robust community empowerment programs to enhance the sustainability of food estates. By involving NGOs in policy formulation and implementation, the government can ensure that food estate projects are not only economically viable but also environmentally sustainable and socially inclusive.

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