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Bridging the Policy and Implementation Gap: Regional Bureaucracy and the Governance of Smallholder Oil Palm Plantations

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ABSTRACT

This study examines the persistent gap between centrally mandated sustainability policies and their implementation in smallholder oil palm plantations in Indonesia, with a focus on the role of regional bureaucracies. It aims to analyze how local bureaucratic actors bridge the disconnect between policy design and on-the-ground realities, particularly in the context of Indonesian Sustainable Palm Oil (ISPO) standards and related programs. Grounded in the Street-Level Bureaucracy framework, this research adopts a qualitative case study approach in West Aceh Regency. Data were collected through in-depth interviews with smallholder farmers, field officers, and government officials, supported by participant observation and document analysis, and analyzed using thematic analysis. The findings reveal that field-level bureaucrats function as active policy actors who interpret, adapt, and operationalize central regulations through discretionary practices, improvisation, and context-sensitive strategies. These adaptive mechanisms—such as simplifying procedures, prioritizing services, and engaging in social negotiation—are crucial in aligning formal policy requirements with local socio-economic conditions. However, implementation is significantly constrained by structural limitations, including inadequate human resources, limited infrastructure, insufficient funding, and socio-political pressures such as elite intervention and high central performance targets. The study concludes that the effectiveness of smallholder oil palm governance is highly dependent on the adaptive capacity of regional bureaucracies. Strengthening institutional flexibility, bureaucratic

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capacity, and multi-level coordination is essential to enhance policy outcomes. This research contributes to the literature by demonstrating how bureaucratic discretion, structural constraints, and local political dynamics interact in shaping policy implementation, offering both theoretical and practical insights for more inclusive and sustainable agricultural governance.

Keyword: Oil Palm Plantation; Smallholder; Regional Bureaucracy; Street-Level Bureaucracy; Policy Implementation

INTRODUCTION

Palm oil plantations are a strategic sector that plays a vital role in the Indonesian economy, both as a source of foreign exchange and as a provider of employment for millions of people, particularly in rural areas (1–3). Most plantations are managed by smallholders or independent smallholders, who contribute significantly to national production (4,5). However, there is a significant gap between central government policies designed to promote sustainability and their implementation at the regional level (6,7). Regional bureaucracies, as the primary implementers of policies, often face limited resources, suboptimal coordination, and cumbersome procedures, resulting in slow and ineffective policy implementation on the ground (8–10).

Globally, smallholder palm oil is facing significant pressure from the demands for sustainable certification, such as the Roundtable on Sustainable Palm Oil (RSPO) and Indonesian Sustainable Palm Oil (ISPO), to remain competitive in the international market (11,12). This pressure has intensified with the emergence of new regulations such as the EU Deforestation Regulation (EUDR), which requires deforestation-free palm oil products and transparent supply chains. Nationally, smallholder oil palm plantations play a significant role in Indonesia, covering 6.8 million hectares, or 40.3% of the total national palm oil plantations. They account for approximately 35–38% of CPO production and contribute significantly to the country's foreign exchange. Meanwhile, in Aceh, smallholder oil palm plantations cover 487,500 hectares, making them a leading regional commodity, employing hundreds of thousands of workers and supporting the local economy (13–15).

Despite their crucial role, smallholder oil palm farmers still face various structural barriers. High production costs, land legality issues (16–19), limited access to capital, and minimal adoption of sustainable technology and practices mean their productivity is relatively low, at only 2.5–3 tons of CPO per hectare, far below the 5–6 tons per hectare achieved by large companies (20). The government has launched the Smallholder Oil Palm Replanting (PSR) program to increase productivity and encourage compliance with sustainability standards (21). However, its implementation remains hampered by complex bureaucracy (22), global price and market dynamics (23), and the limited institutional capacity of farmers (24). This demonstrates that although smallholder oil palm is a mainstay of the global, national, and regional economies, its sustainability still faces serious challenges.

implementers but also play a role as decision-makers who influence the success and quality of policies in local practice.

Despite the growing body of literature on smallholder oil palm governance, most existing studies tend to emphasize technical, economic, and sustainability aspects, such as productivity constraints, certification challenges, and market pressures (32–34). While these studies provide valuable insights, they often overlook the institutional and governance dimensions of policy implementation, particularly at the regional level. Furthermore, previous research has largely focused on policy design and national-level frameworks (35), with limited attention to how policies are interpreted, negotiated, and enacted in everyday practices by local actors.

In addition, studies examining the implementation of programs such as the Smallholder Oil Palm Replanting (PSR) and sustainability certification schemes have primarily highlighted structural barriers faced by farmers, including land legality issues, limited access to resources, and institutional constraints (36,37). However, these studies have not sufficiently explored the role of regional bureaucracies as key intermediaries in bridging policy and practice. The dynamic interactions between bureaucratic discretion, resource constraints, and socio-political pressures in shaping policy outcomes remain underexplored, particularly within decentralized governance systems (38,39). The novelty of this study lies in its integrative approach that connects policy implementation gaps in the smallholder oil palm sector with the Street-Level Bureaucracy perspective. Unlike previous studies that predominantly focus on technical, economic, and certification aspects, this research emphasizes the active role of regional bureaucrats as policy actors who interpret, negotiate, and adapt policies in practice. By providing empirical evidence from the local context of West Aceh, this study offers a more grounded understanding of how bureaucratic discretion, structural constraints, and socio-political pressures interact in shaping policy outcomes.

Therefore, this study addresses the identified gaps by focusing on the role of regional bureaucracy in mediating the disconnect between central policies and local implementation, particularly in the context of West Aceh as a key smallholder oil palm producing region. By applying the Street-Level Bureaucracy framework (24,40), this research aims to analyze how frontline bureaucrats interpret, negotiate, and adapt policies within complex institutional environments. Specifically, the study seeks to examine the gap between policy design and implementation at the regional level and to assess how bureaucratic capacity, discretion, and local constraints shape policy outcomes. The findings are expected to contribute both theoretically and practically by offering a more nuanced understanding of policy implementation dynamics, as well as providing strategic recommendations to enhance policy effectiveness through improved coordination, transparency, and empowerment of smallholder oil palm farmers toward more inclusive and sustainable governance.

METHOD

This research uses a qualitative approach with a case study method, aiming to deeply understand the dynamics of smallholder oil palm plantation policy implementation at the regional level. The case study method was chosen because it allows for contextual exploration of phenomena, taking into account the experiences of actors directly involved (41). The research location was purposively determined in West Aceh Regency, Aceh Province, which plays a strategic role as a smallholder oil palm producing region and represents relevant local bureaucratic conditions. Research informants were selected through purposive sampling, with the criteria being direct involvement in policy implementation. These included regional bureaucrats, field officers (extension workers), and smallholder oil palm farmers (42).

Data collection techniques included in-depth interviews, participant observation, and documentation studies. Interviews were used to explore the perceptions and experiences of policy

actors, participant observation was conducted to examine the dynamics of practices in the field, while documentation studies focused on policy documents, implementation reports, and official data. The primary instrument of this research was the researcher herself, who played a role in designing the interview guide, interacting with informants, and recording observations (43). A semi-structured interview guide was used to maintain focus while remaining flexible to adapt to field conditions. Data analysis was conducted using thematic analysis (44), starting with transcription, open coding, and category grouping, leading to the discovery of key themes. The results were then interpreted using the Street-Level Bureaucracy conceptual framework to understand policy implementation patterns and the gap between formal regulations and field practices (30,45). To ensure data validity, source and method triangulation techniques were used, comparing interview results, observations, and documentation. Member checks were conducted with informants to ensure the accuracy of the data and interpretations (43).

RESULT AND DISCUSSION

Bureaucratic Discretion in Implementing Policy

The research results show that the implementation of smallholder oil palm policies in the field occurs with complex adaptation dynamics. Field bureaucrats, including extension workers, supervisors, and service officers, serve not only as policy implementers but also as active interpreters of central government policies. Discretion is used as a crucial strategy to bridge normative policies with heterogeneous local conditions. In the Smallholder Oil Palm Replanting program, for example, the land legality requirements set by the central government cannot be fully met by many smallholder oil palm farmers due to their long and complex tenure histories. If these requirements were enforced, most farmers would be excluded. Therefore, field officers use discretion by recognizing alternative documents, such as village certificates or proof of land ownership. This adjustment allows farmers to continue accessing assistance and ensures the program's social inclusion goals.



Figure 2: The Productivity Gap (2026)

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A similar situation occurs with the harvest reporting system. Central regulations require digital reporting, but limited internet access and low digital literacy among farmers make this system ineffective. Field bureaucrats have taken the initiative to use manual reports based on physical documents. Although not in accordance with the centrally regulated format, this adjustment still ensures administrative accountability and operational efficiency. However, the discretion of field bureaucrats is not unlimited. Research has found two realms of constraints: formal and informal. Formal constraints come from ministerial regulations, standard operating procedures (SOPs), and strict hierarchical oversight mechanisms. Informal constraints stem from social expectations, organizational practices, and local political intervention. Bureaucrats often find themselves in a dilemma between adhering to written rules and responding to pressures from the socio-political environment. To address this dilemma, bureaucrats develop mitigation strategies. They consult with superiors to ensure discretion remains within the framework of formal legitimacy, document decisions in detail as a form of accountability, and build communication with local actors to mitigate political pressure.

These findings align with (30), theory of street-level bureaucracy, which emphasizes that discretion is an inherent element in public policy implementation. Field bureaucrats consistently exercise limited freedom to adapt policies to complex realities. Other research supports these findings. (46), found that Southeast Asian agrarian bureaucrats adapt central regulations to suit farmers' conditions. (47), emphasize the flexibility of field bureaucrats as a determining factor in the effectiveness of forestry policies in Indonesia. (48), also emphasize that discretion always operates within a framework of strict regulations and socio-political interventions. Thus, field bureaucrat discretion in smallholder oil palm policies is an adaptive mechanism that allows central normative policies to remain functional at the local level, despite being constrained by formal regulations and informal pressures.

Structural Limitations in Policy Implementation

In addition to discretionary factors, research also found that structural limitations are a significant obstacle to the implementation of smallholder oil palm policies. These limitations include the quantity and quality of human resources (HR), work facilities, infrastructure, and budget support. The number of extension workers and field supervisors is severely limited compared to the number of farmers to be served. With approximately 2.6 million smallholder oil palm farming households in Indonesia, an average of one or two extension workers must manage a large work area with a large number of farmers. This situation results in uneven technical and administrative assistance. Beyond quantity, the quality of human resources also remains a problem. Many field officers lack ongoing training, thus limiting their ability to address technical and administrative issues. For example, when managing land legality documents or sustainable plantation certification, officers often lack adequate technical competency. Limited facilities further exacerbate this situation. Many officers lack operational vehicles, even though their work areas are difficult to access. Poor production road infrastructure complicates harvest distribution, while weak internet connectivity hampers digital reporting. These conditions force bureaucrats to use manual systems that are slower and prone to errors.

Budgetary constraints are becoming increasingly apparent. Spending cuts for the smallholder oil palm program by one-third of the initial budget have resulted in a reduction in supporting facilities in the field. In 2025, for example, the funding allocation for the Smallholder Oil Palm Rehabilitation Program was cut by 33.4 percent, rendering many work facilities unavailable. These structural limitations are not only technical but also impact the quality of implementation. Services are uneven, data reports are often late, and information accuracy is reduced. As a result, decision-making at the central level does not always reflect actual conditions on the ground. Addressing these constraints demands integrated reforms that link field realities to national planning. Decentralized resource allocation, informed by local audits, would better

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match personnel and tools to regional demands, while public private partnerships could accelerate connectivity upgrades. Embedding performance metrics focused on outcomes like certification rates or yield improvements rather than inputs would incentivize efficiency. Over time, these shifts not only streamline PSR execution but also elevate smallholder productivity, contributing to Indonesia's sustainable palm oil goals and rural economic stability.

These findings are consistent with the literature. (49), identified the disproportionate number of extension workers to farmers as a significant obstacle to the PSR. (50), emphasized the importance of continuous training to improve bureaucratic capacity. (51), demonstrated that budget cuts resulted in weakened infrastructure support, while (52), highlighted the poor internet connection in palm oil production centers. Theoretically, these limitations reinforce (30), view that field bureaucrats often work under resource-constrained conditions. These limitations force them to develop improvisation and selectivity in service delivery, such as selecting priority farmers or continuing to use manual reporting when digital systems are not operational.

Socio-Political Pressure and Public Expectations

In addition to structural limitations, field bureaucrats also face socio-political pressures and high public expectations. This study found that bureaucrats are in a difficult position, having to navigate demands from superiors, local political intervention, and high expectations from farmers. Internally, the central government's targets for replanting (PSR) are often unrealistic. For example, the annual replanting target of 180,000 hectares is challenging to achieve due to land legality issues, limited human resources, and poor infrastructure. However, this target remains a measure of success, placing significant pressure on field bureaucrats. In addition to pressure from superiors, bureaucrats also face local political interference. Regional elites often influence the selection of aid recipients or the direction of programs to favor particular groups.

This situation threatens bureaucratic neutrality and opens up opportunities for policy politicization. On the other hand, smallholder oil palm farmers have high expectations of field bureaucrats. They hope for technical assistance, access to affordable fertilizer, accelerated administrative processes, and stable palm oil prices. However, limited capacity makes it difficult for bureaucrats to meet all these expectations. As a result, a gap arises between public expectations and the reality of service delivery on the ground. This situation aligns with (30), theory on the multidimensional pressures faced by field bureaucrats. They must simultaneously face demands from multiple directions superiors, local elites, and the public with limited resources. This gives rise to the phenomenon of coping behaviors, namely, selective strategies bureaucrats employ to survive, even though this often results in dissatisfaction among some community groups.

To address these multidimensional pressures, field bureaucrats often resort to coping strategies such as prioritizing politically connected farmers, rationing limited resources selectively, or simplifying administrative procedures at the expense of thoroughness. While these tactics enable short-term survival and partial program implementation, they exacerbate inequalities in aid distribution and erode public trust in the bureaucracy over time. This aligns with principal-agent theory, where agents (bureaucrats) deviate from principals' (central government's) objectives due to local constraints and incentives. Policymakers could mitigate these issues by setting realistic PSR targets based on field realities, enhancing human resource capacity through targeted training, and establishing oversight mechanisms to curb political interference. Ultimately, reforming these structural and socio-political dynamics is essential to bridge the expectation-reality gap and foster more equitable oil palm replanting outcomes for smallholder farmers. Previous research supports these findings. (53), showed that the workload of extension workers is very high due to the unequal farmer to extension worker ratio. (54), found that oil palm planting target areas in Malaysia are also challenging to achieve, placing significant

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pressure on bureaucrats. (55), highlighted the gap between farmer expectations and bureaucratic capacity, which often leads to public disappointment.

Impact and Adaptive Strategies of Bureaucrats

Facing structural limitations and socio-political pressures, field bureaucrats develop adaptive strategies. This research identified three main strategies: procedural simplification, service prioritization, and negotiation and improvisation. Procedural simplification involves creating more practical, informal rules. For example, making more orderly manual queues, opening dedicated channels for complaints, or adapting reporting procedures to suit local conditions better. These strategies expedite services even though they do not fully align with formal regulations.

Service prioritization is implemented due to capacity constraints. Farmers with the most pressing needs are prioritized, although social proximity or political pressure sometimes influences decisions. This reflects the dilemma between efficiency and fairness in service distribution. Negotiation and improvisation are also essential strategies. Bureaucrats often negotiate with farmers who lack formal documentation to ensure they can still access assistance. They also act as mediators in land conflicts between farmers and companies. Administrative improvisation involves changing reporting schedules or using simplified documents to keep programs running. These adaptive strategies demonstrate that field bureaucrats are *de facto* policymakers who shape policy in practice. They not only enforce regulations but also give operational meaning to policies. This aligns with (30), view that field bureaucrats create policy meaning through everyday practices.

Empowering field bureaucrats through structured autonomy could amplify these adaptive strategies' benefits. Granting them authority to adjust targets contextually, coupled with digital tools for real-time data sharing, would enhance decision-making agility while minimizing politicization risks. Community involvement via participatory forums would further align services with farmer realities, fostering ownership and reducing conflicts. Long-term, investing in interdisciplinary skills blending agronomy, conflict resolution, and digital literacy equips officials to innovate sustainably. Such measures transform coping into strategic governance, ultimately boosting PSR achievements and smallholder resilience amid volatile markets.

Other research supports these findings. (56), found that informal rules are often used by agrarian bureaucrats as a coping mechanism. (31), showed that alternative service channels are a common strategy to overcome infrastructure limitations. (57), highlighted the importance of negotiation in resolving land conflicts. The implications of these findings are both theoretical and practical. Theoretically, this research reinforces Lipsky's theory that discretion is a fundamental aspect of field bureaucracy. Practically, the study confirms that the success of smallholder oil palm policies depends heavily on the adaptability of field bureaucrats. Therefore, central policies need to be more flexible, human resource capacity needs to be strengthened through continuous training, infrastructure must be improved, and accountability mechanisms need to be oriented towards the quality of public services, not simply procedural compliance.

CONCLUSION

This study concludes that the implementation of smallholder oil palm policies in West Aceh is heavily influenced by complex local dynamics. Field bureaucrats act not only as technical implementers but also as policy actors, actively interpreting and adapting central regulations to the realities of the community. Bureaucratic discretion emerges as a crucial instrument for bridging the gap between formal rules and the realities of smallholder oil palm farmers, particularly regarding land legality and reporting systems. However, policy effectiveness faces

significant challenges in the form of limited human resources, facilities, infrastructure, and budgetary support.

On the other hand, bureaucrats must also bear the pressure of high central targets, intervention by local elites, and unmet community expectations. In this situation, adaptive strategies such as simplifying procedures, prioritizing services, and social negotiation become primary options to ensure program continuity. Conceptually, these findings confirm the relevance Street-Level Bureaucracy Lipsky theory, which views policy implementation not as a mechanical process but as a dynamic practice rife with discretion, improvisation, and adaptation. Thus, the success of the smallholder palm oil policy is highly dependent on the adaptive capacity of field bureaucrats in managing social, political, and administrative complexities simultaneously.

Based on the findings of this study, several important recommendations can be used as input for policymakers and as a guide for future research. Practically, the central government needs to provide greater flexibility to field bureaucrats in interpreting policies, while strengthening accountability mechanisms to ensure discretion remains controlled. Strengthening bureaucratic capacity should also be a priority through ongoing training, increasing the number of extension workers, and providing adequate operational facilities, such as official vehicles and information technology infrastructure. Furthermore, reformulating the budgeting system is essential to prevent drastic cuts in smallholder oil palm replanting programs, while improving basic infrastructure, such as production roads and internet connections, is an urgent need to support effective implementation.

From a policy perspective, ongoing dialogue between the central government, regional governments, and oil palm farmers needs to be strengthened to reduce policy gaps and prevent policy voids. This two-way communication pattern is crucial to ensure that formulated policies are genuinely responsive to local dynamics and do not solely emphasize procedural compliance. Meanwhile, academically, further research should expand the scope of the region with a comparative approach across regions to more comprehensively understand variations in implementation dynamics. A more in-depth study of the interactions between the bureaucracy and non-state actors, such as palm oil companies, farmer organizations, and NGOs, is also highly relevant to enriching our understanding of policy governance. Furthermore, exploring more collaborative and adaptive policy implementation models in the smallholder agriculture sector is expected to provide both conceptual and practical alternatives to improve the success and sustainability of future programs.

REFERENCES

1. Purnomo H, Okarda B, Dermawan A, Ilham QP, Pacheco P, Nurfatriani F, et al. Reconciling oil palm economic development and environmental conservation in Indonesia: A value chain dynamic approach. *For Policy Econ* [Internet]. 2020 Feb;111:102089. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S138993411930022X>
2. Priyanto T, Apriyanto M, Ariyanto A. Analysis of Economic Efficiency of Palm Oil in Seberida Village. *J Ilmu Sos ...* [Internet]. 2025; Available from: https://www.researchgate.net/profile/Apriyanto-Mulono/publication/396261748_Analysis_of_Economic_Efficiency_of_Palm_Oil_in_Seberida_Village/links/68e4cdef02d6215259b9c6e2/Analysis-of-Economic-Efficiency-of-Palm-Oil-in-Seberida-Village.pdf
3. Bahruslim, Mulono Apriyanto AA. The Effects Of Converting Rubber Plantation Land To Oil Palm Plantations On Community Welfare In Pantai Raja Village, Perhentian Raja District, Kampar Regency. 2025;
4. Cisneros E, Kis-Katos K, Nuryartono N. Palm oil and the politics of deforestation in Indonesia. *J Environ Econ Manage*. 2021;108.

History:

Received : 01 April 2026

Revised : 04 April 2026

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Published : 01 June 2026

5. Herlina N, Wahyuni H. Impact of Oil Palm Plantation on Economy and Environment in Bengkulu Province. *J Ilmu Sos Mamangan*. 2022;11(2):146–52.
6. Morita K, Okitasari M, Masuda H. Analysis of national and local governance systems to achieve the sustainable development goals: case studies of Japan and Indonesia. *Sustain Sci*. 2020 Jan;15(1):179–202.
7. Holzhacker RL, Wittek R, Woltjer J. Decentralization and Governance for Sustainable Society in Indonesia. *Decentralization Gov Indones*. 2015;3–29.
8. Dobrzykowski D. Understanding the Downstream Healthcare Supply Chain: Unpacking Regulatory and Industry Characteristics. *J Supply Chain Manag*. 2019 Apr;55(2):26–46.
9. Doz Y. Fostering strategic agility: How individual executives and human resource practices contribute. *Hum Resour Manag Rev*. 2020 Mar;30(1):100693.
10. Gaus N, Yunus M, Karim A, Sadia H. The analysis of policy implementation models in higher education: the case study of Indonesia. *Policy Stud*. 2019 Jan;40(1):92–109.
11. Wulandari A, Nasution MA. Perbandingan Roundtable On Sustainable Palm Oil (RSPO), Indonesian Sustainable Palm Oil (ISPO), dan Malaysian Sustainable Palm Oil (MSPO). *J Penelit Kelapa Sawit*. 2021 Apr;29(1):35–48.
12. Schoneveld GC, van der Haar S, Ekowati D, Andrianto A, Komarudin H, Okarda B, et al. Certification, good agricultural practice and smallholder heterogeneity: Differentiated pathways for resolving compliance gaps in the Indonesian oil palm sector. *Glob Environ Chang*. 2019 Jul;57:101933.
13. Mahidin, Saifullah, Erdiwansyah, Hamdani, Hisbullah, Hayati AP, et al. Analysis of power from palm oil solid waste for biomass power plants: A case study in Aceh Province. *Chemosphere*. 2020;253.
14. Isnaini I, Rezkina S. The Resistance of Farmer Groups in Protected Forest Management. *J Ilmu Sos Mamangan*. 2019;8(2):45–51.
15. Ridal Riyos Padri, Elvawati II. The Challenges and Resilience of Rubber Farming Households in Transitioning to Oil Palm Cultivation. 2024;
16. Pambudi AS. The Development of Social Forestry in Indonesia: *J Indones Sustain Dev Plan*. 2020 Apr;1(1):57–66.
17. Eka Sintha TY, Pordamantra P, Prajawahyudo T, Dewi Nopembereni E, AD Y, Karuniawan Putera Asiaka F, et al. Issues and Strategies for Accelerating the Implementation of Sustainable Smallholder Oil Palm Rejuvenation Program in Indonesia. *J World Sci*. 2023 Sep;2(9):1280–9.
18. Juniyanti L, Purnomo H, Kartodihardjo H, Prasetyo LB. Understanding the driving forces and actors of land change due to forestry and agricultural practices in sumatra and kalimantan: A systematic review. *Land*. 2021;10(5).
19. Zainuddin A, Muchlis F, Destiarni RP, Jamil AS, Meilin A, Amalia DN, et al. Implementation Strategy of Indonesia Sustainable Palm Oil (ISPO) Certification: A WOT Analysis Approach. *J Ilmu Pertan Indones*. 2025 May;30(3):500–12.
20. Adejuwon OO, Ilori MO, Taiwo KA. Technology adoption and the challenges of inclusive participation in economic activities: Evidence from small scale oil palm fruit processors in southwestern Nigeria. *Technol Soc*. 2016 Nov;47:111–20.
21. Petri H, Hendrawan D, Bähr T, Musshoff O, Wollni M, Asnawi R, et al. Replanting challenges among Indonesian oil palm smallholders: a narrative review. *Environ Dev Sustain*. 2024 Jul;26(8):19351–67.
22. Meier KJ, Compton M, Polga-Hecimovich J, Song M, Wimpy C. Bureaucracy and the Failure of Politics: Challenges to Democratic Governance. *Adm Soc*. 2019 Nov;51(10):1576–605.
23. Williams MJ. Beyond state capacity: Bureaucratic performance, policy implementation and reform. *J Institutional Econ*. 2021;17(2):339–57.
24. Peeters R, Campos SA. Street-level bureaucracy in weak state institutions: a systematic review of the literature. *Int Rev Adm Sci*. 2023;89(4):977–95.

History:

Received : 01 April 2026

Revised : 04 April 2026

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Published : 01 June 2026

25. Jelsma I, Turinah, Gay F, Ollivier J, Rapidel B. Collective action, replanting and resilience; Key lessons from 40 years of smallholder oil palm cultivation in the Ophir plantation, Indonesia. *Agric Syst.* 2024 Jan;213:103801.
26. Terlau W, Hirsch D, Blanke M. Smallholder farmers as a backbone for the implementation of the Sustainable Development Goals. *Sustain Dev.* 2019 May;27(3):523–9.
27. Brandi CA. Sustainability Standards and Sustainable Development – Synergies and Trade-Offs of Transnational Governance. *Sustain Dev.* 2017;25(1):25–34.
28. Hidayat NK, Offermans A, Glasbergen P. Sustainable palm oil as a public responsibility? On the governance capacity of Indonesian Standard for Sustainable Palm Oil (ISPO). *Agric Human Values.* 2018 Mar;35(1):223–42.
29. Abubakar A, Ishak MY, Makmom AA. Nexus between climate change and oil palm production in Malaysia: a review. *Environ Monit Assess.* 2022;194(4).
30. Lipsky M. Street-level bureaucracy: Dilemmas of the individual in public services. *Street-Level Bureaucracy: Dilemmas of the Individual in Public Services.* 2010. 1–275 p.
31. Pacheco P, Schoneveld G, Dermawan A, Komarudin H, Djama M. Governing sustainable palm oil supply: Disconnects, complementarities, and antagonisms between state regulations and private standards. *Regul Gov.* 2020 Jul;14(3):568–98.
32. Edo GI, Makinde MG, Nwosu LC, Ozgor E, Akhayere E. Physicochemical and Pharmacological Properties of Palm Oil: an Approach for Quality, Safety, and Nutrition Evaluation of Palm Oil. *Food Anal Methods.* 2022;15(8):2290–305.
33. Kurnia JC, Jangam S V., Akhtar S, Sasmito AP, Mujumdar AS. Advances in biofuel production from oil palm and palm oil processing wastes: A review. *Biofuel Res J.* 2016;3(1):332–46.
34. Pye O. Commodifying sustainability: Development, nature and politics in the palm oil industry. *World Dev.* 2019;121:218–28.
35. Nesadurai HES. Transnational Private Governance as a Developmental Driver in Southeast Asia: The Case of Sustainable Palm Oil Standards in Indonesia and Malaysia. *J Dev Stud.* 2019;55(9):1892–908.
36. Astari AJ, Lovett JC. Does the rise of transnational governance ‘hollow-out’ the state? Discourse analysis of the mandatory Indonesian sustainable palm oil policy. *World Dev.* 2019;117:1–12.
37. Choiruzzad SAB, Tyson A, Varkkey H. The ambiguities of Indonesian Sustainable Palm Oil certification: internal incoherence, governance rescaling and state transformation. *Asia Eur J.* 2021;19(2):189–208.
38. Nupueng S, Oosterveer P, Mol APJ. Governing sustainability in the Thai palm oil-supply chain: the role of private actors. *Sustain Sci Pract Policy.* 2022;18(1):37–54.
39. Ingram V, van den Berg J, van Oorschot M, Arets E, Judge L. Governance Options to Enhance Ecosystem Services in Cocoa, Soy, Tropical Timber and Palm Oil Value Chains. *Environ Manage.* 2018;62(1):128–42.
40. Chang A, Brewer GA. Street-Level bureaucracy in public administration: A systematic literature review. *Public Manag Rev.* 2023;25(11):2191–211.
41. Yin RK. *Case Study Research and Applications: Design and Methods* (6th ed.). SAGE Publications. *Can J Progr Eval.* 2018;30(1).
42. Patton MQ. *Qualitative Research & Evaluation Methods: Integrating Theory and Practice.* London: SAGE Publications, Inc.; 2015.
43. Maxwell JA. Why Qualitative Methods Are Necessary for Generalization. *Qual Psychol.* 2020 Feb;8(1):111–8.
44. Castleberry A, Nolen A. Thematic analysis of qualitative research data: Is it as easy as it sounds? *Curr Pharm Teach Learn.* 2018 Jun;10(6):807–15.
45. Gammelgaard B. The qualitative case study *The International Journal of Logistics Management Article information* : 2017;(November):2–7.

History:

Received : 01 April 2026

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46. Pichler M. Legal dispossession: State strategies and selectivities in the expansion of Indonesian palm oil and agrofuel production. *Dev Change*. 2015 May;46(3):508–33.
47. Kartodiharjo, H., & Cahyonob E (2021). Agrarian reform in Indonesia: Analyze concepts and their implementation from a governance perspective. *Jurnal Manajemen Hutan Tropika*, 27, 1-1. 2021;
48. Onyango G. Organizational Disciplinary Actions as Socio-Political Processes in Public Organizations. *Public Organ Rev*. 2019;19(2):227–48.
49. Mcdonough C, Nuberg IK, Pitchford WS. Barriers to participatory extension in Egypt: Agricultural workers' perspectives. *J Agric Educ Ext*. 2015 Mar;21(2):159–76.
50. Shava E, Muringa TP. Curbing bureaucratic limitations through continuous learning in local government in South Africa. *Front Polit Sci*. 2024 Dec;6.
51. Ray D, Ing LY. Addressing Indonesia's Infrastructure Deficit. *Bull Indones Econ Stud*. 2016 Jan;52(1):1–25.
52. Kis-Katos K, Sparrow R. Poverty, labor markets and trade liberalization in Indonesia. *J Dev Econ*. 2015 Nov;117:94–106.
53. Jelsma I, Slingerland M, Giller KE, Bijman J. Collective action in a smallholder oil palm production system in Indonesia: The key to sustainable and inclusive smallholder palm oil? *J Rural Stud*. 2017 Aug;54:198–210.
54. Tang KHD, Al Qahtani HMS. Sustainability of oil palm plantations in Malaysia. *Environ Dev Sustain*. 2020;22(6):4999–5023.
55. Ayompe LM, Schaafsma M, Egoh BN. Towards sustainable palm oil production: The positive and negative impacts on ecosystem services and human wellbeing. *J Clean Prod*. 2021 Jan;278:123914.
56. Spiegel SJ. Shifting Formalization Policies and Recentralizing Power: The Case of Zimbabwe's Artisanal Gold Mining Sector. *Soc Nat Resour*. 2015 May;28(5):543–58.
57. Mohammad Bayu Irawan, Dewi K. Baderan, Fitryane Lihawa. Dampak Konflik Sosial terhadap Ekspansi Lahan Perkebunan Sawit : Sebuah Kajian Literatur. *WISSEN J Ilmu Sos dan Hum*. 2024 Dec;3(1):170–80.

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