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Pseudo-Polycentric Governance and Recentralization of Indonesia's Forest Management

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Abstract

Decentralized forest governance is often promoted as a mean to achieve sustainability and equity. In Indonesia, Forest Management Units (*KPH*) *are designed as autonomous entities within a polycentric system to enhance adaptive, local-level management. However, significant gaps persist between policy intent and actual practice on the ground. Using the Institutional Analysis and Development* (*IAD*) *framework, this study critically examines the institutional design of Government Regulation Number 23/2021, focusing specifically on authority and payoff rules across five management domains. The findings reveal three major issues: strategic authority and financial benefits remain centralized; KPHs act as 'powerless facilitators' performing operational tasks without direct financial incentives; and 'ceremonial compliance' emerges, wherein KPHs prioritize administrative adherence over addressing local problems. This configuration signals a breakdown of polycentric governance, termed 'pseudo-polycentric governance,' and creates a 'principal-agent-rentier* (*PAR*) *trap,' wherein the central government captures forest revenues while shifting costly tasks to KPHs without granting them resource sovereignty. The study concludes that effective forest management requires a shift toward 'generative polycentricity'—genuine resource sovereignty, adaptive authority, and horizontal accountability. Without such restructuring, KPHs will remain ineffective frontline managers. These insights offer lessons for other forest-rich nations grappling with similar decentralization challenges in diverse contexts and settings*.

Keywords: *authority rules, forest management unit, institutional analysis, polycentric governance, recentralization*

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Introduction

Global forest governance has shifted mainly from centralized to decentralized, polycentric models. Many consider that this approach will promote greater equity, enhanced environmental outcomes, and increased responsiveness to local needs (Andersson & Ostrom, 2008; Ostrom, 2010). The central concept is that these systems comprise multiple independent yet coordinated decision-making centers. Within such systems, each unit has limited autonomy, thereby increasing its adaptability compared to monolithic structures (Ostrom, 2005).

As the world's third-largest tropical forest holder, Indonesia has embraced this global trend by implementing decentralization through the establishment of Forest Management Units (KPH). This progressive policy represents a fundamental shift from a centralized, prescriptive model toward a more inclusive and adaptive landscape-level management approach (Kartodihardjo et al., 2011; Fisher et al., 2017; Riggs et al., 2018). KPHs were created as the smallest management units, serving as frontline managers of state forests at the field level, with responsibilities including planning and facilitating collaboration (Kartodihardjo et al., 2011; Tajuddin et al., 2019).

Decentralization practices across countries frequently reveal significant gaps between formal institutional design and actual field implementation (Ribot et al., 2006; Larson & Soto, 2008). In Indonesia, this gap manifests in the concept of "institutional decoupling," wherein institutions adopt policies to appear legitimate yet fail to implement them effectively in practice (Baral, 2018; Chervier et al., 2025). Within Indonesian forest management, this decoupling is characterized by "ceremonial compliance." KPHs are required to produce elaborate planning documents, such as Long-Term Forest Management Plans (*Rencana Penge-*

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lolaan Hutan Jangka Panjang, or RPHJP), primarily to meet administrative performance indicators rather than for practical purposes (Meyer & Rowan, 1977; Bahri et al., 2019). Paradoxically, these ceremonial documents have limited influence over strategic control retained by the central government, highlighting a fundamental mismatch between symbolic policy adoption and actual local governance capacity (Santoso et al., 2019).

The practical realities faced by KPHs in Indonesia underscore the urgency of this institutional analysis. Although formally designated as frontline managers, many KPHs remain heavily dependent on central and provincial government budgets for operational costs (Article 124), severely constraining their managerial autonomy (Massiri et al., 2020; Ichsan et al., 2021). This financial dependency is compounded by persistent capacity constraints, including limited human resources and infrastructure, which impede core functions such as forest planning, fire management, and conflict resolution (Napitu et al., 2017; Budiningsih et al., 2022). Empirical studies further document KPHs' struggles with overlapping land claims and ambiguous property rights arrangements, further undermining their institutional legitimacy and effectiveness at the local level (Fisher et al., 2017; Wulandari et al., 2021).

Recent institutional evaluations of KPH regulations at the provincial level confirm this diagnosis. Although such regulations often possess strong structural foundations—particularly in defining key actors, management scope, and positional arrangements—significant weaknesses persist in procedural completeness and positive incentives. Procedural completeness scores were the lowest, with critical mechanisms such as verification procedures, coordination forums, and dispute resolution processes inadequately specified. Studies also document the dominance of sanction-based mechanisms over positive incentives, structurally channeling KPHs toward compliance rather than proactive management (Suwarno et al., 2026). These findings highlight that regulatory weaknesses are not confined to the national level but are also reflected in implementing regulations at the provincial level.

Government Regulation Number 23/2021 (GR 23/2021) on Forestry Implementation represents the latest policy development intended to improve the system. Paradoxically, strong evidence indicates that GR 23/2021 has become a tool for recentralization rather than for strengthening decentralization (Nugroho et al., 2023). Most previous studies on KPH limitations were conducted prior to this significant regulatory change, creating a critical gap in the literature regarding GR 23/2021's impact on restructuring fundamental principles. These studies highlight critical operational weaknesses, such as suboptimal KPH institutional performance and human resource capacity, which impede their ability to fulfill desired roles in conflict resolution and sustainable forest management (Napitu et al., 2017). This recalls Ostrom's (1991) observation that "the way people think and relate to one another" constitutes a fundamental foundation for realizing polycentric governance that supports citizenship. The failure to acknowledge this principle, as illustrated in GR 23/2021, signals an erosion of the shared understanding necessary for decentralized governance (Ostrom, 1991).

This study aims to address the identified gap by pursuing four interrelated objectives. First, to map the distribution of authority and payoff rules within GR 23/2021 across five major forest management domains: planning, utilization, protection, rehabilitation, and conflict resolution. Second, to evaluate the extent to which institutional design aligns with or deviates from polycentric governance principles. Third, to identify mechanisms through which GR 23/2021 reinforces recentralization despite its discursive commitment to decentralization. Fourth, to introduce new diagnostic concepts—'pseudo-polycentric governance' and the 'principal-agent-rentier (PAR) trap'—to better understand the failures of polycentric arrangements in Indonesia's forestry sector and propose pathways toward more generative institutional configurations.

This analysis combines the Institutional Analysis and Development (IAD) framework as an operational analytical tool for systematically examining formal rules (Ostrom, 2005) and polycentricity theory (Andersson & Ostrom, 2008) as the primary theoretical lens for interpreting the implications of findings. The IAD framework provides a structured approach to dissecting institutional rules—particularly authority and payoff rules—that shape decision-making and incentives. This analytical focus is consistent with previous IAD applications to Indonesian KPH regulations, which have demonstrated that authority and payoff rules are the most diagnostic categories for identifying institutional misalignments that undermine effective local governance (Suwarno et al., 2015; 2026). Polycentricity theory serves as an evaluative benchmark used to assess institutional design, providing normative and analytical criteria for what constitutes a genuinely decentralized, multi-centered governance system. According to Thiel et al. (2019), polycentric systems are characterized by "many decision centers with limited and autonomous prerogatives that operate under an overarching set of rules." GR 23/2021, as we shall demonstrate, fails to realize these essential conditions.

By applying the IAD framework to map formal rules, this study diagnoses the gap between formal design and polycentric ideals. The findings introduce 'pseudo-polycentric governance'—a system that appears to follow polycentric principles in its discourse and formal structure but is operationally governed by rigid monocentric logic (Ostrom, 2005). As Aligica and Tarko (2012) contend, a key element of polycentric systems is their capacity to facilitate the emergence of spontaneous social order as a result of evolutionary competition among different governance units. Within this framework, KPHs have been reduced to the role of 'powerless technical implementers,' holding operational responsibilities but lacking strategic authority. This imbalanced configuration has created dynamics of 'ceremonial conformity' (Agrawal et al., 2008; Nugroho et al., 2023) and what we term the 'principal-agent-rentier (PAR) trap,' wherein the central government, acting as a rent-seeker, shifts burdens to KPHs without granting them resource sovereignty (Shobe, 2020; Nugroho et al., 2023). This study proposes a transformative approach termed 'generative polycentricity,' which emphasizes resource sovereignty, adaptive authority, and horizontal accountability (Carlisle & Gruby, 2019; Salaka et al., 2020).

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Methods

Analytical framework: IAD framework This study employs the IAD framework developed by Ostrom (2005) as its analytical foundation. The IAD framework is a useful tool for analyzing complex situations wherein individuals collaborate, particularly within action arenas governed by specific rules. It provides a structured approach to dissecting institutional rules that shape decision-making processes and outcomes. In the context of forest governance, the IAD framework enables systematic identification of how formal rules influence key actor behavior. This approach aligns with Thiel et al.'s (2019) view that 'thinking polycentrically' implies not accepting simple blueprints but delving into the details of institutional design and human behavior. This approach is particularly suited to the analysis of formal rules that lies at the heart of our research.

We concentrate on two primary rule types: authority rules and payoff rules. Authority rules define who holds decision-making power, which actions are permitted or prohibited, and how collective decisions are made. Payoff rules determine how benefits and costs are distributed among actors. These rules consider not only financial aspects but also political legitimacy, resource access, and administrative authority (Ostrom, 2005; Siddiki et al., 2019). Authority rules reveal who holds strategic decision-making power, while payoff rules indicate who is economically and politically benefited from management outcomes.

These rule types were selected because they represent the most critical components of institutional incentives: formal authority and material motivation. Although the IAD framework recognizes various rule types—including boundary, position, choice, information, aggregation, and scope rules—authority and payoff rules were prioritized. They most directly determine power dynamics and incentive structures that are central to debates about decentralization versus recentralization. Notably, as Stephan et al. (2019) emphasize, the essence of polycentric governance lies in the absence of a single central decision-making forum. Therefore, analysis of who holds authority and who benefits directly reveals whether an arrangement meets polycentric criteria or not. Other rule types, such as boundary rules (defining who is eligible to participate) and aggregation rules (determining how decisions are collectively made), were considered but deemed less central to the specific research questions. This analytical focus is consistent with previous IAD applications to Indonesian KPH regulations, which have demonstrated that authority and payoff rules are the most diagnostic categories for identifying institutional misalignments (Suwarno et al., 2015; 2026). By focusing on these two categories, this analysis provides a targeted diagnosis of institutional arrangements that enable or constrain effective polycentric governance.

Data sources and analytical units The primary data for this analysis is the final text of GR 23/2021 on Forest Administration, which applies uniformly across all FMUs throughout Indonesia. This regulation was chosen because it represents the most recent and comprehensive legal framework governing forest management in Indonesia. It serves as the primary benchmark against which the institutional design of FMUs is assessed.

The units of analysis comprise two interrelated components. First, three key institutions: the Minister of Environment and Forestry/Central Government, the Governor/Provincial Government, and the Forest Management Unit (KPH). Second, five core forest management components: management and planning, forest utilization, forest protection, forest reclamation and restoration, and conflict management in forest areas. These five domains represent the full spectrum of KPH responsibilities as mandated by the regulation.

It is important to clarify that this study is a document-based institutional analysis. The analysis focuses on rules-in-form, as codified in the regulation, rather than directly measuring actual implementation outcomes or rules-in-use. The distinction between formal rules and rules used in practice is crucial to understand; Ostrom (2005) herself noted that operational rules often differ significantly from formally prescribed rules. This study examines institutional design as a basis for identifying potential misalignments and institutional risks. When discussions refer to behavioral consequences or performance—such as ceremonial conformity or powerlessness—these are framed as institutional risks and likely outcomes derived from rule structures. They are not presented as empirically verified implementation results. This distinction is essential for interpreting findings accurately.

Analytical procedure: Qualitative content analysis with rule coding The study employed a qualitative content analysis methodology to examine institutional rules (Ostrom, 2005; Siddiki et al., 2019). This approach is well-suited for analyzing regulatory texts because it allows for systematic identification and categorization of rule types. The analysis was carried out in three successive phases to ensure rigor and transparency.

In the first coding step, the entire text of GR 23/2021 was read carefully. Two researchers independently coded each regulatory article using a structured coding book based on the IAD framework. This coding book provided clear categories for rules governing institutional authority—such as "approving authority," "issuing licenses," and "setting policy"—and for rules governing benefits—such as "direct allocation of revenue," "budgetary control," and "access to in-kind incentives."

The coding process involved two main steps. First, researchers identified entities mentioned in each article: minister, governor, and KPH. They also identified relevant sections of the forestry economy discussed in each article. Second, they categorized rules into two types: authority rules and payoff rules. Each analysis unit was assigned to one dominant rule category based on its primary function.

To ensure inter-coder reliability, both researchers independently coded the same text section, approximately 20% of the regulation. They then compared their findings and discussed any differences until consensus was reached. Inter-coder agreement exceeded 90% before proceeding to full coding. Discrepancies were resolved through discussion and, where necessary, by refining coding definitions within the codebook. The final coding protocol was documented and

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applied consistently to the remaining text. This systematic approach to reliability assessment follows established best practices in qualitative content analysis (Neuendorf, 2017; Krippendorff, 2018).

The coded data were then entered into two analytical matrices. The first matrix displays the distribution of authority rules across the five management domains and three institutional actors. The second matrix lists rules regarding costs, benefits, and benefit sources for each actor. These matrices enabled systematic comparison of rule distribution across actors and domains. Finally, during interpretation and synthesis, the matrices were analyzed using Ostrom's institutional theory (Ostrom, 2005; McGinnis, 2011) and additional literature to identify patterns, imbalances, and the impact of rule structuring on management effectiveness. Figure 1 schematically illustrates the analytical procedure.

Results

Mapping the recentralization architecture in GR 23/2021 GR 23/2021 effectively maps the distribution of institutional rules and the roles and benefits among three key actors: central government, regional government, and KPH. This mapping compares two fundamental rule types—authority rules and payoff rules—across five main forest management components. Complete results are presented in Table 1.

The analysis reveals a clear and consistent pattern: strategic authority and financial benefits remain concentrated at the central level, while KPHs are assigned operational responsibilities without corresponding decision-making power or direct financial incentives. This pattern is evident across all five management domains, indicating a systematic institutional design that prioritizes centralization over genuine decentralization. Ostrom's (1997) warning about the dangers of overly centralized government—threatening the foundations of democratic and participatory governance—is highly relevant to these findings.

Concentration of power rules: Rigid hierarchy undermining autonomy The distribution of authority rules creates a rigid hierarchy, contradicting the principle of limited autonomy in polycentric systems. Examination of authority rules reveals a clear concentration of strategic decision-making power at the central level. The central government is the 'supreme authority': the minister holds exclusive and final authority over strategic decisions, such as forest area designation (Articles 14 and 31), approving definition changes (Article 53), and issuing permits for economically significant business activities (Articles 62, 98, 135, and 152). The authority to issue and revoke permits for large-scale operations (Article 163) reinforces this 'gatekeeper' position. As observed by Thiel et al. (2019), in genuine polycentric governance, 'there is no single central decision-making forum that holds unique authority. ' The concentration of authority found in GR 23/2021 directly contradicts this fundamental principle.

Conversely, the analysis shows that gubernatorial authority is primarily administrative and derivative. Governors are tasked with forest inventory (Article 8) and KPH establishment (Article 37). Delegation of authority to issue certain permits (Articles 96 and 163) is limited to high-risk, low-revenue activities. This represents more of an administrative burden of decentralization than a genuine power-sharing arrangement. The governor's role remains largely procedural and subordinate to ministerial authority.

Most significantly, the findings reveal that KPHs are systematically excluded from strategic decision-making. Although assigned implementation tasks—such as preparing

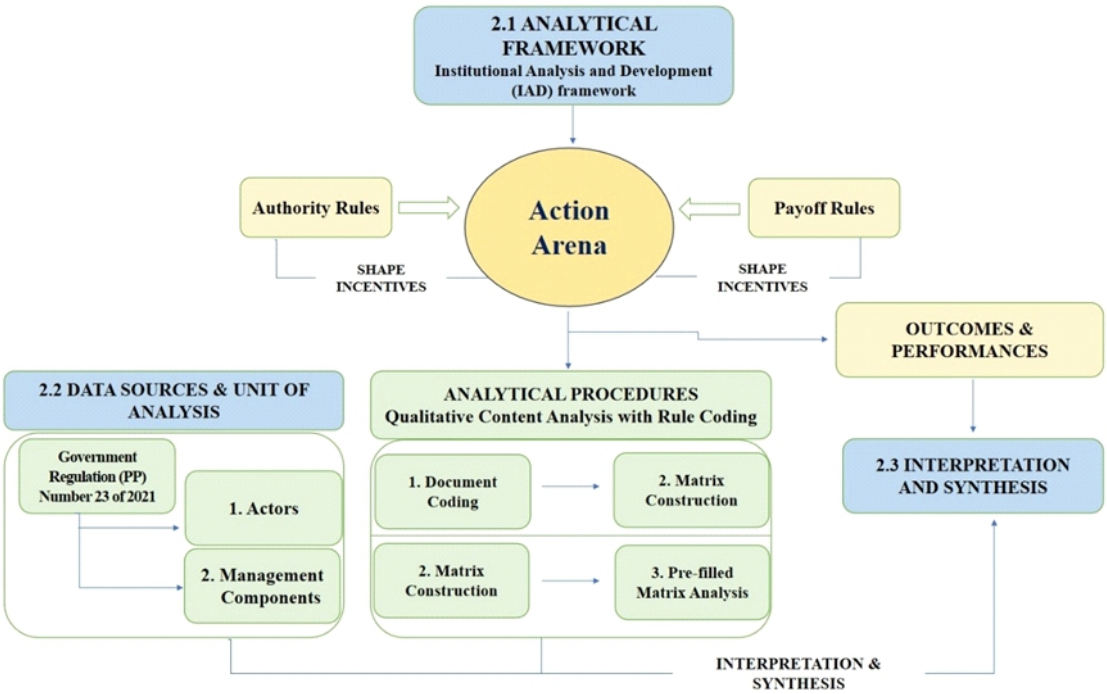

Figure 1 Institutional analysis procedure for DG 23/2021 and supporting literature.

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Table 1 Summary of institutional analysis results in Government Regulation Number 23/2021

Forest management element	Authority rules	Payoff rules	Examples/Remarks
Forest administration & management plan	Minister: Establish NSPK and RKTN; Governor: Develop a regional forestry plan (RKTP); FMU: Prepare and implement RPHJP and RPHJPd	Minister: Control of national policy direction; Absolute authority over the National Forestry Plan (RKTN) which dictates strategic resource allocation; Governor: RKTP synchronization fund allocation; Ability to influence regional budgeting priorities based on the approved RKTP; FMU: Technical and operational support; No direct financial benefit; Operational budget contingent on central and provincial approval (Art. 124)	e.g., Art. 117–121, 123: Minister approves national plan (RKTN), FMU's RPHJP must align and endorsed by the Minister
Forest utilization	Minister: Establish criteria and business license; Governor: Provide technical recommendations; FMU: Assist and recommend business locations	Minister: Non-Tax State Income (PNBP) and national contribution; Direct receipt of significant revenue streams from high-value permits (e.g., Art. 63, 179, 190); Governor: Local Government Revenue (PAD) from regional schemes; Limited revenue from smaller permits delegated by the minister (Art. 96, 163); FMU: Operational incentives and profit sharing; Minor operational fees or budget allocations, not tied to a share of PNBP (Art. 124)	e.g., Art. 135, 152: Minister controls high-value permits; FMU gets minor operational fees
Forest protection	Minister: Establish a national strategy for protection; Governor: Establish a regional protection program; FMU: Community-based patrol and protection	Minister: National reputation and reaching goals; Political credit for reaching national conservation goals and getting international climate funds; Governor: Support for the budget and stability; Access to certain central government transfers for protection programs, but no direct income; FMU: Local incentives, training, and logistics; Without their own money, they have to rely on centrally allocated budgets for patrols and fire control (Art. 256).	e.g., Art. 123, 256: FMU responsible for fire control but relies on central budget
Rehabilitation & reclamation	Minister: Establish priority locations and methods; Governor: Propose priority locations for rehabilitation; FMU: Carry out rehabilitation at the site level	Minister: Meeting the goals for national restoration; Reporting success against national indicators can help with politics and reputation; Governor: Better regional environmental index; Non-monetary benefits linked to regional environmental performance metrics; FMU: Facilities and incentives that require a lot of work; Temporary local jobs during projects are good, but there is no long-term financial mechanism or benefit-sharing from restored areas.	e.g., Art. 123, 187–189: FMU implements, but priorities set above
Forestry conflict resolution	Minister: Establish a conflict resolution policy; Governor: Implement forestry conflict resolution; FMU: Early detection, mediation, conflict reporting	Minister: Legitimizing and strengthening oversight; Consolidation of political authority as the ultimate arbiter of significant conflicts; Governor: Increased public trust; Enhanced local political legitimacy from resolving minor disputes; FMU: Strengthening legal position and social recognition; Non-material benefits such as community trust, which are intangible and do not translate into operational funding	e.g., Art. 123: FMUs carry out Social Forestry facilitation (part of conflict resolution) and forest area management (prone to conflict), but primary resolution policies are centralized

management plans, facilitating activities, and fire suppression (Articles 40, 118, 119, 123, and 256)—they lack authority to approve permits, establish policies, or independently allocate resources. This rule distribution pattern indicates that KPHs operate as technical implementers rather than autonomous management units. The asymmetry between responsibility and authority is a hallmark of this institutional design. Blomquist and Schröder's (2019) perspective reinforces this: the essence of seeing polycentrically is recognizing that centers in polycentric arrangements must possess 'at least some independence or autonomy. KPHs, as configured in GR 23/2021, lack such independence.

These findings are consistent with the diagnosis of regulatory weaknesses at the provincial level. Suwarno et al. (2026) found that authority rules in Riau Provincial Regulation scored only 2.7 out of 5, with notable tension between KPH coordination mandates and limited substantive authority. They attributed these limitations not only to provincial-level regulation drafting but also to the structure of GR 23/2021 itself (Article 123), which confines KPHs to coordination and facilitation roles while reserving regulatory authority for the central government.

Asymmetry of payoff rules: Decoupling of the financial incentive for KPH The structure of payoff rules reinforces the power hierarchy and creates dysfunctional incentive misalignments characteristic of flawed systems. Assessment of payoff rules reveals a parallel concentration of financial benefits at the central level. The central government acts as the 'consolidated rent collector.' It is the primary recipient of direct fiscal revenues, including various Non-Tax State Revenues (*Penerimaan Negara Bukan Pajak,* or PNBP) from the forestry sector (Articles 63, 179, and 190). It also

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controls the largest portion of reforestation funds (60%) (Article 193). The central government holds power to impose rewards or sanctions (Article 211).

Regional governments receive 'contingent benefits.' Their benefits, such as the 40% share of Reforestation Funds (Article 193), are limited and conditional on usage. Mandates for small-scale permits carry indirect political benefits but also significant responsibilities. Governor's offices gain some political legitimacy from managing regional forestry affairs, yet this legitimacy does not translate into substantial financial autonomy.

Our examination further reveals that KPHs lack direct access to the financial benefits generated by their working areas. Total dependence on transfers from the state/regional budget (APBN/APBD) (Article 124) poses a serious threat to their effectiveness. 'Rewards' for KPHs are intangible—such as social legitimacy and community trust—while the 'costs' of failure, such as administrative sanctions (Article 256), are substantial. This arrangement effectively punishes poor performance without providing adequate positive incentives for success. Marshall and Malik (2019) note that such a lack of adequate material incentives undermines citizens' capacity to act as 'co-producers' in environmental governance, a dynamic equally applicable to KPHs as forest governance actors.

This pattern is reinforced by Suwarno et al. (2026), who found that payoff rules in the Riau Provincial Regulation scored only 2.5 out of 5. They documented that incentives are defined generically without concrete mechanisms specifying form, source, conditions, or amount. They also found the regulation dominated by sanction-based mechanisms rather than positive incentives. This reflects not only the provincial-level drafting limitations but also the absence of detailed incentive provisions within GR 23/2021 itself. The decoupling of financial incentives from KPH performance represents a fundamental flaw in institutional design.

Summary of key findings The institutional analysis of GR 23/2021 reveals three key findings. First, strategic authority and financial benefits remain centralized, reinforcing rigid hierarchies that contradict polycentric principles. Second, KPHs act as 'powerless facilitators,' performing operational tasks without direct financial incentives or decision-making authority. Third, this configuration creates conditions for 'ceremonial compliance,' with KPHs focusing on administrative adherence rather than addressing local problems. These findings collectively indicate a breakdown of polycentric governance, which we term 'pseudo-polycentric governance.'

Discussion

Deconstruction of polycentric failure and a new theoretical framework Analysis of the institutional architecture of GR 23/2021 reveals a profound contradiction that is not merely technical but structural. While decentralization and polycentricity dominate global forest governance discourse, their implementation in Indonesia and other tropical forest nations often reinforces rigid hierarchies. Empirical evidence shows that decentralization frequently remains symbolic, with central governments maintaining strategic control through tight oversight (Libert-Amico & Larson, 2020; Xu et al., 2020). Similarly, polycentric systems are often overshadowed by hierarchical structures enabling central actors to dominate decision-making (Morrison et al., 2019; Sotirov et al., 2020), while barriers such as weak local accountability persist (Gupta et al., 2020; Omala & Aglanu, 2020). This discussion examines this decentralization paradox, moving beyond empirical description to introduce new analytical frameworks for understanding the gap between policy rhetoric and on-the-ground reality.

Findings from the institutional analysis indicate that the distribution of authority and payoff rules within GR 23/2021 creates a system structurally predisposed toward recentralization. This is not an accidental outcome but appears to be a deliberate design feature. The central government maintains control over strategic decisions and high-value revenue streams while delegating operational burdens and low-value tasks to KPHs. This configuration systematically undermines the potential for genuine polycentric governance. Ostrom (2010) herself observed that polycentric governance tends to enhance innovation, learning, adaptation, trust, levels of cooperation among participants, and the achievement of more effective, equitable, and sustainable outcomes at multiple scales. Conversely, the highly centralized design found in GR 23/2021 tends to inhibit these desired outcomes.

The contradictions identified in GR 23/2021 become clearer when viewed through Indonesia's biophysical forest conditions. Indonesia's tropical forests are characterized by high biodiversity, complex ecosystems, and vulnerability to fire and deforestation (Riggs et al., 2018; Budiningsih et al., 2022). The centralized design of GR 23/2021 assumes that a single uniform regulatory framework can effectively manage these diverse landscapes. This assumption is problematic, as it fails to account for regional ecological variations, such as the peatland ecosystems in Sumatra and Kalimantan requiring specific fire management approaches or the unique conservation needs in Papua. The lack of adaptive, location-specific authority for KPHs within this regulation means these local ecological challenges are addressed through rigid, top-down strategies, increasing the risk of management failure and ecological degradation. Blomquist and Schröder (2019) emphasize that understanding polycentric governance requires attention to "the characteristics of the social problem" and "the fit of scales" between management units and the problems they address. GR 23/2021, with its uniform approach, ignores these critical considerations.

Ceremonial conformity and the concept of "pseudo-polycentric management" The study's findings on power concentration and benefit asymmetry in GR 23/2021 confirm the trend toward recentralization but, most importantly, show that the system fails to achieve genuine polycentricity. Based on the institutional analysis, we argue that this configuration creates a system of 'pseudo-polycentric governance.' This concept captures a system that maintains the discourse and formal structure of polycentricity—with multiple decision-making centers such as KPHs—but is operationally governed by a rigid monocentric logic (Ostrom, 2005; Andersson & Ostrom, 2008). Evidence for this diagnosis lies in the

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systematic exclusion of KPHs from strategic authority and direct financial benefits, despite their formal designation as management units. This institutional design creates a facade of decentralization while maintaining central control. Thiel et al. (2019) caution that polycentric arrangements can be efficient or inefficient, equitable or inequitable, cohesive and coordinated or disjointed and fragmented. GR 23/2021, as we have shown, produces an arrangement that is fundamentally inequitable and uncoordinated.

The identified dynamic of 'ceremonial conformity'—wherein KPHs focus on administrative compliance with central requirements, such as RPHJP preparation, rather than functioning as active management tools addressing local issues—is a primary indicator of this pseudo-polycentricity (Meyer & Rowan, 1977; Agrawal et al., 2008). In the Indonesian context, KPHs are constrained to produce elaborate planning documents primarily to satisfy central bureaucratic requirements rather than functioning as adaptive tools for local conditions (Nolos et al., 2023). This pattern is empirically reinforced by Suwarno et al. (2026), whose analysis of the Riau Provincial Regulation on KPHs found that procedural completeness scored only 2 out of 5, with critical mechanisms such as verification procedures, coordination forums, and dispute resolution processes inadequately specified. Their study also documented the dominance of sanction-based mechanisms over positive incentives, confirming that the regulatory framework structurally predisposes KPHs toward compliance-oriented rather than proactive, adaptive management behavior.

The attributes of the communities involved also influence the failure of pseudo-polycentric governance. Indonesia's forest governance arena is not a power vacuum. It involves communities with varying levels of forest resource dependence, local elites with entrenched interests, and NGOs advocating diverse objectives (Fisher et al., 2017; Wulandari et al., 2021). This fragmented social landscape creates complex networks of local power relations. A genuine polycentric system would empower KPHs to navigate these local power dynamics and build trust with communities. However, as our analysis shows, KPHs are structurally powerless. Without formal authority, they lack the 'power' and legitimacy to act as conflict mediators among local elites or to partner effectively with communities. This configuration only exacerbates existing tensions, as communities perceive KPHs as powerless extensions of the central government, further undermining their potential for effective local governance. Marshall and Malik (2019) affirm that effective polycentric governance requires the capacity of citizens to experiment with different ways of addressing various problems and learn from these experiments over time. GR 23/2021, by curtailing KPH autonomy, directly erodes this capacity.

This phenomenon aligns with institutional isomorphism theory, which holds that organizations adopt formal structures to legitimize themselves (Boxenbaum & Jonsson, 2017). However, pseudo-polycentricity goes beyond isomorphism. While isomorphism explains the initial rationale for KPH establishment (for legitimacy), pseudo-polycentricity establishes the functional mechanism of the system once formed. In this configuration, KPHs transform from mere 'pawns' into 'alienated agents.' They gain enough freedom to handle operational burdens and be held accountable for failures, yet lack the strategic authority and appropriate incentives to achieve significant success.

Theoretically, the lack of clear separation between rights and benefits can trigger institutional inconsistency, occurring when Indonesia decentralizes its forestry sector without genuinely relinquishing control (Sotirov et al., 2020; Chervier et al., 2025). Ultimately, this situation leads to poor KPH capacity, as they often lack formal authority or appropriate motivation to act effectively (Bushouse et al., 2021; Nugroho et al., 2023). This imbalanced arrangement creates what we term the 'Power Without Substance Paradox.' This paradox is more harmful than pure centralization because it creates an illusion of participation and autonomy that ultimately discredits the concept of polycentricity itself among stakeholders.

This analysis serves as a bridge between theoretical debates among optimistic proponents of Ostromian polycentricity (Andersson & Ostrom, 2008) and political economy critics emphasizing tendencies toward recentralization (Ribot et al., 2006; Toft et al., 2015; Basnyat et al., 2020). We affirm that 'pseudo-polycentricity' is a sophisticated mechanism wherein political elites resist external decentralization pressures while maintaining control over resources and strategic decisions, thereby perpetuating a seemingly decentralized status quo. Similar patterns are observed in forestry decentralization across various countries, including Ghana and India, where local institutions are established to meet participation requirements but receive no actual authority (Datta, 2021; Mawutor & Hajjar, 2022). As Ostrom (1999) cautioned, there is no guarantee that polycentric systems will find the combination of rules at multiple levels that is optimal for a particular environment. GR 23/2021, by maintaining tight central control, deliberately ignores this potential for optimal rule discovery.

Broken principal-agent dynamics and the "principal-agent-tenant (PAR) trap" The IAD analysis of rights and provisioning principles within GR 23/2021 reveals more than mere incentive misalignment; it uncovers a deep institutional trap known as the principal-agent-rentier (PAR) trap. This trap is not confined to the national level but is also visible at the provincial level. Suwarno et al. (2026) found that payoff rules in Riau Provincial Regulation scored only 2.5 out of 5, with incentives defined generically without concrete mechanisms specifying form, source, conditions, or amount—limitations they attributed not only to provincial-level drafting but also to the absence of detailed incentive provisions within GR 23/2021 itself.

One of the IAD framework's key principles is the crucial distinction between 'rules-in-form' (formal written regulations) and 'rules-in-use' (informal norms, practices, and conventions that actually shape behavior). GR 23/2021 provides the rules in form for Indonesian forest governance. However, our analysis of the PAR trap reveals the rules-in-use that the central government follows. The central government, acting as a rent-seeker, uses its formal authority (rules-in-form) not to foster polycentric management but to enforce its own informal 'rules-in-use': maintaining control over lucrative revenue streams. Simultaneously, KPHs,

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burdened with operational responsibilities and lacking financial sovereignty, are compelled to adopt their own rules-in-use, focused on bureaucratic survival and compliance to avoid punishment rather than adaptive management. This fundamental gap between the stated objectives in the regulation (rules-in-form) and the actual incentives and behaviors it creates (rules-in-use) is the engine driving the PAR trap and reinforcing pseudo-polycentric governance. Tarko et al. (2019) note that the credibility of commitment to these rules is crucial for polycentric governance functioning; when rules are deliberately structured to serve central interests rather than enable local autonomy, that credibility erodes.

Drawing on rule coding, this framework conceptualizes the central government as an opportunistic, rent-controlling principal that delegates operational responsibilities to KPHs while retaining economically valuable forest-use and revenue-generating authority, thereby weakening the alignment between KPH responsibilities, incentives, productivity, and management outcomes (Wagner, 2019; Yamada, 2020; Nugroho et al., 2023). The logic behind the PAR trap operates as follows: the central government's primary objective, as a rent-seeker, is to maintain the flow of forest rents by monopolizing high-value permits and PNBP. As principal, it then delegates costly, risky, and low-revenue tasks—such as fire suppression, rehabilitation, and conflict resolution—to KPHs, meaning they cannot access those revenue sources. The result is what we term "agency without resource sovereignty," wherein KPHs are responsible for all operational tasks yet lack control over the financial resources necessary to execute them.

Examining the action arenas in which KPHs operate further clarifies this PAR trap. For instance, while GR 23/2021 assigns KPHs the formal task of facilitating Social Forestry (Article 123), the rules for channeling funds for these activities are controlled by the central government, rendering KPHs' role in community engagement action situations more symbolic than substantive (Wahyudi et al., 2021). The interactions occurring are not genuine partnerships but a bureaucratic chain of command wherein KPHs report to governors and ministers rather than acting as independent mediators or managers. This is a clear example of how the absence of clearly defined action situations and the presence of one-way interactions confirm KPHs' structural weakness, reducing them to mere administrative positions of the central government. Blomquist and Schröder (2019) observe that analyzing inter-center relationships is crucial for understanding whether an arrangement is a functioning polycentric system or merely fragmented and uncoordinated polycentric chaos. GR 23/2021, in creating such imbalanced relationships, clearly falls into the latter category.

Such an arrangement creates serious temptations for abuse. The central government can enjoy forest revenues without handling all the daily tasks accompanying their management (Affandi et al., 2021; Nugroho et al., 2023). On the other hand, KPHs must adopt short-term survival strategies, prioritizing bureaucratic rule compliance over long-term investment in ecosystem health (Riggs et al., 2018; Tajuddin et al., 2019). They become 'powerless facilitators,' motivated to avoid punishment rather than achieve optimal management outcomes.

This PAR trap analysis adds to decentralization theory in political economy by combining rentier state logic with traditional principal-agent systems. It explains why reforms focusing solely on 'building incentives' without disrupting rent structures always end in failure. In rentier states with natural resources, such as Indonesia, institutional projects will always tend toward revenue centralization, even if that means less efficient management and worse ecological balance (Shobe, 2020).

Towards "generative polycentricity": Theoretical and political implications Our findings and analytical frameworks carry important implications: if 'pseudo-polycentric' engagement in the 'PAR trap' is the core problem, then 'greater decentralization' is not the sole solution. It requires a paradigm shift toward 'generative polycentricity'—a system in which each center (such as KPH) is not only granted authority but also possesses the capability and sovereignty to independently generate and manage value, ultimately contributing to the overall state of the system. This proposal derives from the institutional analysis, which shows that the current design fails to provide KPHs with either the authority or the incentives necessary for effective management. The proposal for 'generative polycentricity' is thus a normative prescription aimed at addressing the specific institutional deficits identified in the coding. Bruns (2019) calls for us to 'embrace self-governance' and acknowledge the 'messy, time-consuming processes, competition, compromise, and trial-and-error' involved in authentic polycentric governance.

Three main pillars form the rules of 'generative polycentricity.' First, there must be resource sovereignty at the unit level. KPHs must have clear and direct claims to a portion of the economic value generated by their working areas—for example, a percentage of PNBP—recognizing their role as co-producers of value, both market (timber) and non-market (ecosystem services) (Suich et al., 2016; Nurfatriani et al., 2022). Second, power must be adaptive, not hierarchical. Power distribution should follow the subsidiarity principle, which holds that decisions should be made at the lowest level capable of handling the burden. GR 23/2021 (Ostrom, 2010; Barton et al., 2017; Carlisle & Gruby, 2019) challenges this principle. Third, horizontal accountability, not merely vertical. The system needs to build strong KPH accountability to local constituents—communities and local governments—by creating genuine checks and balances and vertical accountability to the central government (Salaka et al., 2020; Wahyudi et al., 2021). Marshall and Malik (2019) emphasize that the subsidiarity principle is crucial for fostering "environmental citizenship" and ensuring that lower units have sufficient autonomy to respond to local conditions.

Theoretically, by proposing 'generative polycentricity,' we do not reject Ostrom's legacy but strengthen it by introducing political economy aspects that are often underestimated. We argue that to achieve Ostrom's primary goal of making systems socially and ecologically robust, system components must first become 'generative.' Mexico, Peru, Tanzania, and Vietnam demonstrate that decentralization is not only about power dispersal. It is also about

creating systems in which local actors are 'fed' by the system, giving them internal incentives to sustain it (Libert-Amico & Larson, 2020). Without this paradigm shift, KPHs will remain alienated institutions within a system that verbally supports them but silences them in practice.

The Indonesian case theoretically enriches the polycentric discourse by providing empirical evidence of "polycentric failure" resulting from flawed institutional design. However, it is important to emphasize that conclusions about systemic failure are drawn from institutional design analysis and the identification of institutional risks, rather than from direct measurement of implementation outcomes. The analysis diagnoses structural conditions that predispose the system toward pseudo-polycentricity. Our concept of "pseudo-polycentric management" is useful for analyzing systems where the polycentric surface structure is institutionally dominated by centralized logic and control at deeper levels. This lesson is important for many forest-rich nations, from the Amazon to the Congo Basin, which also grapple with decentralization paradoxes.

Conclusion

This study critically examines Indonesian Government Regulation Number 23/2021 on Forestry Implementation. It uncovers a striking contradiction: though framed as a decentralization measure, the regulation effectively reinforces recentralization. Strategic authority and financial benefits remain concentrated at the center. Forest Management Units (KPHs) are reduced to 'powerless technical implementers'—burdened with operational duties yet stripped of genuine decision-making power and direct fiscal rewards. This fosters 'ceremonial compliance,' wherein KPHs prioritize administrative box-ticking over addressing real field-level problems. The study terms this flawed arrangement 'pseudo-polycentric governance'—a system that mimics polycentricity in form but operates under rigid top-down control. By constraining local units from discovering and adapting rules to their specific contexts, GR 23/2021 inherently undermines effective forest governance. The analysis also introduces the 'principal-agent-rentier (PAR) trap' to show how the central government acts as a rent-seeker, capturing forest revenues while offloading costly, high-risk tasks onto KPHs without granting them resource sovereignty. This pattern is confirmed at the provincial level, where strong formal structures coexist with weakly specified procedures and scant positive incentives. This is not an isolated shortcoming but a systemic flaw in Indonesia's forest governance architecture. The regulation is a human creation reflecting policy choices that work against the polycentric ideals it claims to advance. As a corrective, this study proposes 'generative polycentricity'—centered on genuine resource sovereignty, adaptive authority, and robust accountability to local communities. Without such changes, KPHs will never fulfill their intended role as effective frontline forest managers. Indonesia's experience thus offers a cautionary tale—and potential lessons—for other forest-rich nations navigating similar decentralization paradoxes, from the Amazon to the Congo Basin.

Recommendation

To address the pseudo-polycentric governance paradox and the PAR trap, Indonesia must undertake bold regulatory reforms. Strategic authority and financial incentives should be genuinely delegated to KPHs. This includes granting them operational decision-making power and direct access to a portion of PNBP or other benefits they generate. Concrete mechanisms include revenue retention (e.g., 30–50% of environmental services PNBP), tiered sanctions, permanent coordination forums, and gubernatorial regulations on verification standards—all achievable in the short term. Institutional capacity must also be strengthened. Dual accountability systems should be developed, both vertical to the central government and horizontal to local communities. This ensures KPHs remain responsive to the stakeholders they serve. Without this shift toward 'generative polycentricity'—where each management unit possesses authority and resource sovereignty—forestry decentralization in Indonesia will continue to falter. These reforms offer a concrete pathway for policymakers to close the gap between rhetoric and reality and may serve as a model for other forest-rich nations facing similar challenges.

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