



The Political Network Governance of Indonesia's Low-Carbon Transition: A CIMO-Based Review

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ABSTRACT

Despite international climate commitments, Indonesia's low-carbon policy implementation faces barriers stemming from state-business nexuses. This study analyzes actor networks impeding green economic governance. Employing a Systematic Literature Review (SLR) integrated with the CIMO (Context-Intervention-Mechanism-Outcome) framework, 15 studies were synthesized using NVivo. Results reveal a fragmented state apparatus contrasting with dominant fossil fuel interests entrenched in patronage networks. Quantitative data indicates significant power asymmetries, with 36.8 million hectares allocated to corporations versus 3.1 million hectares to communities. Regulatory capture is evident, exemplified by the 0% royalty clause in the Omnibus Law. Consequently, implementation gaps persist; although presidential commitments aim to reduce coal, 14 GW of new coal capacity was ratified until 2032. Distributive injustices are severe, with an estimated 6,500–15,700 annual premature deaths due to coal emissions. The system exhibits carbon lock-in, projecting coal dominance until 2050. The study concludes that green regulatory stagnation results from historically constituted state-business power configurations rather than technical incapacity. Addressing informal ties between state elites and business interests is crucial. Recommendations include transparent governance designs to minimize fossil fuel dominance and accelerate progress toward the 2060 Net Zero Emission target.

Keywords: State-Business Nexus, Low-Carbon Policy, Regulatory Capture, Political Economy

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1. INTRODUCTION

Indonesia faces a fundamental paradox in global climate governance: as a critical forested nation with immense potential for climate change mitigation, it has consistently struggled to translate high-level low-carbon commitments into effective on-the-ground implementation (Rohmy et al., 2024). Despite positioning itself as a key player in international climate architecture, the country's policy trajectory remains marked by a persistent gap between ambitious rhetoric and stalled execution. This paradox between global expectation and domestic inertia forms the central puzzle that this study seeks to unravel. However, historical data reveal that Indonesia's carbon emissions during the 1997 fires were equivalent to the annual emissions from power generation and transportation in Western Europe (Tomich et al., 2002) This positioning underscores the scale of Indonesia's contribution to global emissions surges, warranting serious scholarly and policy attention.

The urgency of this paradox is underscored by the widening global emissions gap. Current Nationally Determined Contributions (NDCs) worldwide would limit warming to only 2.5–2.9°C, substantially exceeding the Paris Agreement's 1.5°C target. Within this context, Indonesia's historical and projected emissions carry disproportionate weight: during the 1997 fires alone, the country's carbon emissions were equivalent to the

annual emissions from power generation and transportation in Western Europe (Prihandono & Widiati, 2023). Climate change in Indonesia thus constitutes not merely an environmental concern but a direct threat to economic, political, and social stability. Delaying the energy transition exacerbates economic vulnerability particularly through dependence on coal, which exposes the economy to global price volatility and supply crises requiring emergency government interventions (Apriliyanti & Nugraha, 2025). Moreover, climate solutions may engender new forms of appropriation and marginalization when their design remains elitist and fails to transform localized power structures.

Explaining this stagnation requires moving beyond traditional hierarchical policy models, which presuppose the state as a unitary rational actor driving reform from above. Such approaches prove inadequate for capturing Indonesia's complex governance reality, where informal mechanisms of power such as patronage and personalistic networks remain predominant and render policy trajectories incomprehensible through bureaucratic command-chain analyses alone (Falayi et al., 2021). To address this theoretical shortfall, this study explicitly integrates Network Governance theory (Rhodes, 1997; Klijn & Koppenjan, 2016) with the Political Economy of Policy. This synthesized framework conceptualizes impediments to low-carbon transition not as mere implementation failures, but as *network failures* emerging from historically entrenched configurations of state–business elite networks (Hadizadeh et al., 2024).

While literature on Indonesia's climate and energy transition increasingly engages political-economic dimensions, critical gaps remain insufficiently mapped in a systematic manner. These gaps can be grouped into three thematic clusters. *First*, there is a lack of granular analysis on actor dynamics and power relations: even studies critically engaging with green growth often commence from macro-level policy analyses without dissecting underlying decision-making processes and interest conflicts (Prihandono & Widiati, 2023). *Second*, research on specific policy instruments such as the Just Energy Transition Partnership (JETP), carbon tax design, and the new capital city (IKN) remains fragmented. For instance, no study has systematically examined how regulatory shifts like the Omnibus Law on Job Creation (UU Cipta Kerja) reconfigure bargaining positions between the State Electricity Company (PLN) and Independent Power Producers (IPPs) in JETP implementation, despite evidence that JETP faces delays attributable to entrenched coal patronage networks and PLN's dominance in planning processes (Setyowati & Quist, 2022). *Third*, there is a persistent disjuncture between macro-level political-economic models and micro-level governance processes: scholarship on customary forest recognition and essential area policies has illuminated post-recognition dilemmas but has yet to be connected to contemporary carbon market and offset design, while empirical field research tracing the political-business coalitions underpinning legislative processes such as carbon tax delays interpreted as evidence of regulatory capture remains scarce (Prihandono & Widiati, 2023), (Benjamin-Chung et al., 2023).

Diverse political-economic studies of energy and environmental governance in Indonesia provide robust analytical lenses for examining JETP, carbon tax delays, and the new capital city (IKN/Ibu Kota Nusantara). Schemes such as JETP face implementation delays despite available financing, attributable to entrenched coal patronage networks and

PLN's dominance in planning processes (Setyowati & Quist, 2022). Postponements in implementation and excessively low carbon tax rates are interpreted as compelling evidence of fossil fuel business influence on legislative processes. Patterns of development camouflage through conservation narratives prove highly relevant for analyzing IKN as a "World Forest City" driven by conglomerate consortia. Post-electoral power reconfigurations may shift climate priorities, necessitating analysis of alliance transformations and their implications for net-zero target consistency (Jakob et al., 2020).

This study aims to analyze the configuration of state–business actor networks in Indonesia's low-carbon policy landscape by mapping their positions and power relations. It further identifies specific mechanisms such as lobbying and regulatory design that impede low-carbon policy implementation, drawing on evidence of regulatory capture in the coal-fired power sector (Prihandono & Widiati, 2023). Theoretically, this research contributes by bridging the gap between Network Governance and Political Economy through a Political Network Governance framework. It adapts and tests this framework within the context of a fossil fuel-lock-in developing country following the Omnibus Law on Job Creation and the 2060 Net Zero Emission (NZE) commitment. Practically, the findings will formulate recommendations for more transparent governance designs to minimize the dominance of fossil fuel business interests and accelerate progress toward the 2060 Net Zero Emission target.

To address these gaps, this study aims to analyze the configuration of state–business actor networks in Indonesia's low-carbon policy landscape by mapping their positions, power relations, and the specific mechanisms such as lobbying and regulatory design that impede policy implementation. Theoretically, this research contributes by bridging Network Governance and Political Economy through a novel Political Network Governance framework, adapted and tested within the context of a fossil fuel-lock-in developing country following the Omnibus Law on Job Creation and the 2060 Net Zero Emission (NZE) commitment. Practically, the findings will formulate evidence-based recommendations for more transparent and inclusive governance designs to minimize the dominance of fossil fuel business interests and accelerate progress toward Indonesia's 2060 NZE target. By elucidating how historically constituted power configurations shape contemporary climate policy outcomes, this study seeks to inform both scholarly debates and policy practice on achieving just and effective low-carbon transitions in politically complex settings (Anderson et al., 2016).

2. LITERATURE REVIEW

State Business Nexus

This section synthesizes the theoretical and empirical foundations underpinning the study. It reviews key literature on network governance, the political economy of energy transition, and the specific context of Indonesia's low-carbon policy landscape. This review establishes the basis for the proposed Political Network Governance framework.

Low Carbon Policy

Empirical literature on Indonesia illustrates how global climate commitments collide with persistent dependence on coal and land expansion. The proliferation of coal-fired power

plants and business-friendly regulations exemplify regulatory capture and reinforce carbon lock-in within the energy sector (Prihandono & Widiati, 2023). Emissions reduction targets and green growth agendas frequently conflict with palm oil and coal expansion at subnational levels, generating a disjuncture between green rhetoric and on-the-ground realities (Anderson et al., 2016,).

Research increasingly foregrounds political-economic dimensions; nevertheless, numerous areas remain insufficiently mapped. Even studies critically engaging with green growth often commence from macro-level policy analyses without dissecting underlying decision-making processes and interest conflicts (Anderson et al., 2016). Scholarship on customary forest recognition and essential area policies has illuminated post-recognition dilemmas but has yet to be connected to contemporary carbon market and offset design (Abdullah et al., 2024,). No study has systematically examined how regulatory shifts such as the Omnibus Law on Job Creation reconfigure bargaining positions between the State Electricity Company (PLN) and Independent Power Producers (IPPs) in Just Energy Transition Partnership (JETP) implementation (Prihandono & Widiati, 2023).

Political-economic models identify central government and corporate actors as the most influential agents in land and energy governance (Jakob et al., 2020). Regional energy planning exhibits limited public participation, while anti-coal advocates encounter repression within contested transition processes (Setyowati & Quist, 2020). Diverse studies provide robust analytical lenses for examining JETP, carbon tax delays, and the new capital city (IKN), yet post-electoral power reconfigurations necessitate analysis of alliance transformations and their implications for net-zero target consistency (Jakob et al., 2020).

Regulatory Capture

Traditional hierarchical models of governance often presuppose the state as a unitary rational actor capable of driving reform from above. However, scholarly literature demonstrates that such approaches are inadequate for explaining policy stagnation in complex environments. Network Governance theory posits that policy outcomes are the result of interactions among diverse actors within formal and informal networks (Rhodes, 1997; Klijn & Koppenjan, 2016). Within these networks, mechanisms such as trust, negotiation, and power dynamics determine implementation success. Recent studies emphasize that network failures often stem from entrenched configurations of elite relationships rather than mere technical incapacity (Hadizadeh et al., 2024)

The integration of Network Governance with realist evaluation frameworks, such as CIMO (Context-Intervention-Mechanism-Outcome), allows for a deeper understanding of causal relationships. This approach elucidates how interaction mechanisms among actors (M) within particular structural conditions (C) influence policy implementation outcomes (O) arising from a given intervention (I) (Pawson et al., 2005; Denyer & Tranfield, 2009). Literature suggests that without accounting for informal power structures, formal policy interventions often fail to achieve intended outcomes,

particularly in developing contexts where institutional voids exist (Klijn & Koppenjan, 2016).

Political Economy

The political economy of energy transition highlights the conflicts between climate commitments and entrenched economic interests. Literature indicates that dependence on fossil fuels creates carbon lock-in effects, where regulatory frameworks and policy imaginaries effectively extend the operational lifespan of existing infrastructure. Regulatory capture is a central concept in this domain, occurring when agencies established for public interest instead formulate policies based on private interests (Prihandono & Widiati, 2023).

Studies on energy governance reveal that informal mechanisms of power, such as patronage and personalistic networks, remain predominant, rendering policy trajectories incomprehensible through bureaucratic command-chain analyses alone (Pocster & Pepinsky, 2016). The "revolving door" phenomenon, where regulators move between industry and government, contributes significantly to captured regulation (Prihandono & Widiati, 2023). Furthermore, rent-seeking behavior characterizes political-economic interactions in resource governance, often institutionalized through legal clauses that enable companies to retain revenue without state remittance (Prihandono & Widiati, 2023).

Conceptual Framework

Based on the literature synthesis on network governance and political economy, this study proposes a conceptual framework to explain how state-business relationships shape low-carbon policy implementation in Indonesia. The framework delineates interactions among actors, governance mechanisms, mediating barriers, and policy outcomes. It adapts and tests the Political Network Governance framework within the context of a fossil fuel-lock-in developing country following the Omnibus Law on Job Creation and the 2060 Net Zero Emission (NZE) commitment (Massagony et al., 2025).

Hypotheses of The Research

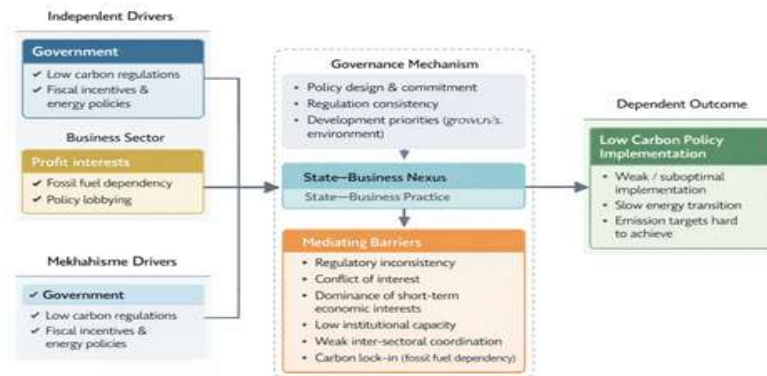


Figure 1. Proposed Conceptual Framework

3. METHODOLOGY

This study adopts a Systematic Literature Review (SLR) methodology, integrating the realist evaluation framework CIMO (Context-Intervention-Mechanism-Outcome) to analyze the dynamics of the state–business nexus in green economy governance in Indonesia. This approach was selected for its capacity not only to describe policy phenomena but also to uncover contextually embedded causal relationships: specifically, how interaction mechanisms among actors (M) within particular structural conditions (C) influence policy implementation outcomes (O) arising from a given green intervention (I) (Pawson et al., 2005; Denyer & Tranfield, 2009).

The research question is formulated to capture the complexity of political economy dynamics: "In the Indonesian context, how do mechanisms within the state–business nexus influence the implementation outcomes of green economy policies, and what configurational conditions strengthen or weaken these relationships?" This framework enables a critical synthesis of the literature, prioritizing power dynamics over mere policy description (Klijn & Koppenjan, 2016).

The literature search strategy was conducted systematically across two high-reputation academic databases, notably Scopus, to ensure comprehensive and verified coverage. Search keywords were designed using Boolean operator combinations to capture the conceptual intersection of network governance, political economy, and green energy policy in Indonesia (e.g., "network governance" AND "political economy" AND Indonesia AND ("energy transition" OR "green policy")). The initial identification process yielded 96 records after duplicate removal, which were subsequently screened based on title and abstract relevance. The search protocol adhered to PRISMA guidelines to ensure transparency and reproducibility in the selection process (Page et al., 2021).

Literature selection was executed through a two-stage screening process (screening and eligibility) applying strict inclusion criteria: (1) studies focusing on Indonesia as the primary contextual case; (2) examination of policy interventions related to the green economy or low-carbon energy transition; (3) inclusion of political-economic mechanism analysis or power dynamics within policy networks; and (4) sufficient methodological quality for qualitative synthesis (Rhodes, 1997; Provan & Kenis, 2008). Of the 96 screened records, 66 were excluded due to contextual, interventionary, or mechanistic misalignment. Subsequently, 30 articles underwent full-text eligibility assessment, and 14 were excluded because Indonesia was not the primary case study, mechanistic analysis was superficial, or methodological quality was inadequate. Ultimately, 16 studies met the criteria for qualitative synthesis, with relevance score distribution as follows: 8 studies categorized as high relevance (scores 9–10) and 8 as good relevance (scores 7–8).

Data extraction and analysis were conducted using NVivo software, employing a hierarchical coding structure grounded in the integration of Network Governance theory and the Political Economy of Policy (Rhodes, 1997; Klijn & Koppenjan, 2016). Primary nodes were designed to map: (1) actors within the network (state, business, civil society, international); (2) formal and informal network structures (including patronage and revolving-door dynamics); (3) interaction dynamics as political-economic mechanisms (such as regulatory capture, power asymmetries, and rent-seeking); and (4) policy

outcomes (implementation performance, distributive effects, and systemic change) (Prihandono & Widiati, 2023; Setyowati & Quist, 2022). The final synthesis was configured according to CIMO logic to explain how contextual conditions activate specific power mechanisms that generate particular policy outcomes, thereby providing a comprehensive analytical response to the research question (Apriliyanti & Nugraha, 2025; Ridho & Marlinda, 2025).

Based on the literature synthesis on network governance and political economy, this study proposes a conceptual framework to explain how state–business relationships shape low-carbon policy implementation in Indonesia. The framework delineates interactions among actors, governance mechanisms, mediating barriers, and policy outcomes.

4. RESULTS

This section presents synthesized findings from the systematic review of 16 studies, organized according to the three analytical dimensions of the Political Network Governance framework: (1) structural configurations of state–business power, (2) network mechanisms that mediate policy processes, and (3) policy outcomes shaped by their interaction. Each subsection follows a Claim–Evidence structure to foreground empirical findings while maintaining analytical coherence.

Structural Configurations: Entrenched State–Business Power Relations

Claim: Indonesia's low-carbon policy landscape is structured by historically constituted configurations of state–business elite networks that privilege fossil fuel interests and constrain transformative reform.

Evidence:

- 1) **Fragmented state architecture:** Presidential commitments to reduce coal-fired power plants (PLTU) systematically conflict with the Ministry of Energy and Mineral Resources (ESDM), which continues to ratify PLN's business plans for 14 GW of new coal capacity through 2030 (Prihandono & Widiati, 2023). This misalignment reflects institutional silos wherein the Ministry of Environment and Forestry (KLHK) possesses limited influence in energy planning relative to MEMR and the Coordinating Ministry for Maritime Affairs and Investment (Apriliyanti & Nugraha, 2025).
- 2) **Extractive business dominance:** The coal mining industry serves as a primary source of political financing at national and regional levels, enabling favorable policy lobbying (Prihandono & Widiati, 2023). Legislative members frequently act as proxies for coal interests, with many operating as coal entrepreneurs within mid-sized corporations (Massagony et al., 2025).
- 3) **Asymmetric resource control:** Land allocation data reveal a stark disparity: 36.8 million hectares allocated to corporations versus only 3.1 million hectares to communities (Rohmy et al., 2024). This structural asymmetry concentrates decision-making power among state–business elites while marginalizing local stakeholders.

Network Mechanisms: How Power Operates in Policy Processes

Claim: Policy trajectories are mediated less by formal regulations than by informal political-economic mechanisms patronage, regulatory capture, and asymmetric resource mobilization that operate within actor networks.

Evidence:

- 1) Patronage and informal networks: Deeply entrenched patron-client relationships dominate coal business contracting, where political connections rather than competitive processes determine outcomes (Setyowati & Quist, 2022). The "revolving door" phenomenon is prevalent: regulators move between industry and government, creating conflicts of interest that shape regulations to protect firm interests rather than public welfare (Prihandono & Widiati, 2023). Kinship ties further consolidate power, exemplified by family members of senior ministers holding key positions in industry associations (Prihandono & Widiati, 2023).
- 2) Regulatory capture and rent-seeking: Regulatory agencies are frequently captured by the industries they oversee. Weak enforcement of Domestic Market Obligation (DMO) policies allows companies to prefer compensation over compliance (Prihandono & Widiati, 2023). Rent-seeking is institutionalized through legal instruments such as the 0% royalty clause in the Omnibus Law on Job Creation, enabling coal companies to retain revenue without state remittance (Prihandono & Widiati, 2023).
- 3) Asymmetric influence strategies: Business actors intensively employ lobbying and campaign contributions to shape policy formulation (Prihandono & Widiati, 2023; Apriliyanti & Nugraha, 2025). Conversely, civil society organizations face narrowing spaces for opposition and limited direct influence on national policymaking despite active litigation and advocacy efforts (Setyowati & Quist, 2022; Apristyan & Fidhata, 2023).

Table 1. Constellation of Actors and Power Relation's in Indonesia's Energy Governance

Actor Cluster	Key Entities	Power Position	Primary Interest/Role
State	President, Ministry of ESDM, Ministry of KLHK, PLN	Dominant/Fragmented	Policy direction, energy security, rent extraction
Business	Coal Mining Assoc. (APBI), IPPs, Conglomerates	High Influence	Profit maximization, regulatory capture, market expansion
Civil Society	NGOs (WALHI, Greenpeace), Indigenous Groups	Limited/Contested	Environmental justice, community rights, accountability
International	World Bank, ADB, JETP Partners	Moderate/External	Climate finance, governance reform, emissions reduction

Source : Synthesized from Prihandono & Widiati (2023), Setyowati & Quist (2022), Massagony et.al (2025).

Policy Outcomes: Implementation Gaps, Lock-in, and Distributive Injustice

Claim: The interaction of structural configurations and network mechanisms produces policy outcomes characterized by persistent implementation gaps, carbon lock-in, and distributive injustice.

Evidence:

- 1) Implementation gaps: Despite high-level commitments, renewable energy targets (23%) and carbon tax implementations remain delayed or aspirational (Massagony et al., 2025). Biomass co-firing strategies, intended as transition mechanisms, often reinforce carbon lock-in by extending the operational lifespan of coal-fired infrastructure (Apriliyanti & Nugraha, 2025).
- 2) Distributive injustice: Benefits concentrate among elite networks evidenced by ministerial connections to coal companies and favorable regulatory clauses while costs externalize to the public. Estimates suggest 6,500–15,700 annual premature deaths due to coal emissions (Prihandono & Widiati, 2023). Local communities face land grabbing and environmental degradation without adequate mitigation (Anderson et al., 2016).
- 3) System lock-in: The energy system exhibits strong path dependency toward coal-based development until 2050. Practices such as biomass co-firing and business-oriented forest governance strengthen carbon lock-in rather than facilitate transformative change (Prihandono & Widiati, 2023; Rohmy et al., 2024).

Table 2. Political-Economic Mechanism Hindering Low-Carbon Transition

Mechanism	Description	Evidence in Literature
Regulatory Capture	Regulators formulate policy based on private rather than public interest.	Weak DMO enforcement; 0% royalty clauses (Prihandono & Widiati, 2023).
Patronage Networks	Exchange of political support for economic favors via informal ties.	Coal financing of elections; kinship ties in task forces (Massagony et al., 2025).
Fragmentation	Overlapping mandates create silos exploited by dominant actors.	Conflict between Ministry of ESDM and KLHK; spatial data scattering (Anderson et al., 2016).
Elite Capture	Policy benefits accrue to a small group of powerful actors.	Land concessions to elites; village officials controlling land transactions (Juniyanti et al., 2021).

Source : Synthesized from Prihandono & Widiati (2023), Anderson et.al (2016, Rohmy et.al (2024)

Synthesis: The Political Network Governance Framework

Based on the CIMO analysis above, Figure 1 illustrates the proposed Political Network Governance framework. It demonstrates how contextual conditions (C) fragmented state architecture and extractive economic structures activate specific power mechanisms (M) patronage, regulatory capture, asymmetry that mediate the

implementation of green interventions (I) such as JETP and carbon pricing, resulting in observed policy outcomes (O) implementation gaps, lock-in, injustice.

Note: Flow chart depicting Context [Fragmented State, Extractive Economy] → Mechanisms [Patronage Networks, Regulatory Capture, Power Asymmetry] → Intervention [Green Policies, JETP, Carbon Tax] → Outcomes [Implementation Gaps, Carbon Lock-in, Distributive Injustice]. Bidirectional arrows indicate feedback loops whereby Outcomes reinforce Contextual conditions. Source: Authors' synthesis based on systematic review findings.

The framework underscores that technical interventions alone are insufficient to achieve Net Zero Emission targets without addressing the underlying informal ties between state elites and business interests. Results confirm that stagnation in green regulation is a consequence of historically constituted state–business power configurations (Hadiz, 2016).

5. DISCUSSION

Theoretical Interpretation: Beyond Hierarchical and Network-Only Models

The findings demonstrate that neither hierarchical state-centric models nor apolitical network governance approaches adequately explain Indonesia's low-carbon policy stagnation. Hierarchical models presuppose the state as a unitary rational actor (Falayi et al., 2021), yet our results reveal a fragmented state apparatus wherein ministries pursue divergent interests shaped by distinct political-economic incentives. Conversely, network governance approaches that emphasize collaborative interactions (Rhodes, 1997; Klijn & Koppenjan, 2016) risk obscuring the asymmetric power relations that structure those interactions.

By integrating Political Economy with Network Governance, the proposed framework elucidates how historically entrenched elite configurations activate informal mechanisms patronage, regulatory capture, asymmetric resource mobilization that systematically privilege fossil fuel interests. This synthesis advances theoretical understanding by specifying the conditions under which network interactions reproduce, rather than transform, extractive status quos.

Dialogue with Literature: Extending Scholarship on Indonesia's Climate Politics

Our findings extend three strands of existing literature. *First*, we deepen scholarship on regulatory capture in Indonesia's energy sector (Prihandono & Widiati, 2023) by tracing how capture operates through specific network mechanisms revolving doors, kinship ties, campaign financing rather than treating it as a static condition. *Second*, we bridge macro-level political economy analyses (Anderson et al., 2016; Hadizadeh et al., 2024) with micro-level governance processes by demonstrating how structural power asymmetries manifest in concrete policy design and implementation decisions. *Third*, we contribute to emerging literature on JETP and carbon market governance (Setyowati & Quist, 2022; Ridho & Marlinda, 2025) by identifying the actor configurations and informal mechanisms that explain implementation delays despite available financing.

Notably, our framework challenges optimistic assumptions about multi-stakeholder forums and participatory planning. Evidence indicates that such processes often become procedural formalities rather than genuine deliberative spaces when power asymmetries remain unaddressed (Setyowati & Quist, 2022; Sahide et al., 2020). This finding resonates with critical scholarship on participatory governance in Eastern Indonesia (cf. user's research focus), suggesting that formal inclusion mechanisms may inadvertently legitimize elite capture without transforming underlying power relations.

Practical Implications: Designing Governance for Just Transition

The Political Network Governance framework yields three actionable insights for policymakers:

- 1) Target informal power mechanisms, not just formal rules: Anti-corruption and transparency reforms must address patronage networks, revolving doors, and kinship-based consolidation of power not merely revise regulatory texts. Strengthening conflict-of-interest regulations for regulators moving between public and private sectors could mitigate regulatory capture.
- 2) Rebalance asymmetric resource access: Land governance reforms should prioritize community tenure security to counterbalance corporate dominance. The 36.8M ha vs. 3.1M ha allocation disparity (Rohmy et al., 2024) indicates that procedural participation alone cannot achieve energy justice without redistributive measures.
- 3) Design JETP and carbon market mechanisms with power analysis: Financing instruments should include governance conditionalities that require transparent stakeholder mapping and power asymmetry assessments. Loan-based climate finance risks reinforcing existing elite networks if disbursement mechanisms do not account for political-economic dynamics (Ridho & Marlinda, 2025).

Collectively, these implications suggest that accelerating Indonesia's low-carbon transition requires governance designs that explicitly anticipate and mitigate the influence of entrenched state–business networks rather than assuming that technical solutions or financial incentives will automatically overcome political barriers.

6. CONCLUSION

This study concludes that the primary barriers to low-carbon policy implementation in Indonesia stem from historically entrenched configurations of state–business actor networks, rather than merely technical incapacity or insufficient climate commitment. A literature synthesis through the Political Network Governance framework reveals that informal mechanisms such as patronage networks, regulatory capture, and power asymmetries systematically undermine formal legal mandates for a green transition. Institutional fragmentation within the state is exploited by fossil fuel business interests to sustain carbon lock-in, as evidenced by the gap between Indonesia's Net Zero Emission 2060 commitment and the on-ground realities of continued coal capacity expansion and delays in carbon tax implementation.

The consequence is distributive injustice: economic benefits remain concentrated among network elites, while social and environmental costs are disproportionately

borne by the broader public. Accordingly, this research recommends the design of more transparent governance structures to mitigate the dominance of fossil fuel interests, strengthen public participation in energy planning, and better align domestic policies with international norms. Future research is encouraged to explore specific strategies for disrupting post-electoral patronage networks and to assess the effectiveness of international financial mechanisms such as the Just Energy Transition Partnership (JETP) in reshaping local power dynamics..

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