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ACTOR INVOLVEMENT IN RENEWABLE ENERGY UTILIZATION: A MULTI-LEVEL GOVERNANCE PERSPECTIVE IN SOUTH SULAWESI PROVINCE

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ABSTRACT

This study analyzes the involvement of actors in renewable energy utilization in South Sulawesi Province from a multi-level governance perspective. Using a qualitative approach through case studies, data were collected through interviews with state and non-state actors across levels of government and analysis of energy policy documents. The results show that renewable energy utilization is still dominated by the central government, while the role of local governments tends to be limited and administrative. Non-state actors play a dominant role in technical aspects, while community involvement is relatively passive. These findings indicate that renewable energy governance practices in the region do not fully reflect the principles of multi-level governance, necessitating the strengthening of local government roles and increased community involvement to support more inclusive and sustainable energy governance.

KEYWORDS: Renewable Energy; Actor Involvement; Multi-Level Governance.

1. INTRODUCTION

Renewable energy development is a public policy process involving diverse actors with varying authority, interests, and capacities. Therefore, the success of renewable energy utilization is determined not only by the availability of resources and technology, but also by how these actors engage and interact within multilevel governance structures. In this context, the multi-level governance (MLG) approach provides a relevant analytical framework for understanding the authority relations and involvement of state and non-state actors in energy policy (Hooghe & Marks, 2001; Piattoni, 2010).

MLG literature emphasizes that public policy is no longer monopolized by a single level of government, but rather is shaped through the interaction of multiple levels and actors with interdependent authority (Hooghe & Marks, 2001; Marks & Hooghe, 2004). Enderlein, Wälti, and Zürn (2011) emphasize that MLG encompasses structural, actor, and process dimensions, so policy analysis must consider both the formal division of authority and the actual practices of actor involvement. In the energy and environmental sectors, the cross-sectoral and cross-regional nature of these policies further reinforces the need for coordination between levels of government and more substantive involvement of non-state actors (Scharpf, 2009; Zürn, 2010).

Several studies in the Handbook on Multi-Level Governance demonstrate that cross-level policy implementation is often characterized by tensions between centralized logic and demands for local actor participation (Benz, 2011; Wälti, 2011). In environmental and energy policies, vertical coordination between levels of government and horizontal coordination with non-state actors are key factors in policy effectiveness (Schreurs, 2011; Jordan & Schreurs, 2014). However, various studies also show that the involvement of subnational actors and communities is often limited or symbolic, especially when the policy sector is still dominated by central actors and technocratic logics (Hallerberg, 2011; Scholte, 2011).

In the context of developing countries, the issue of actor involvement in energy policy becomes increasingly complex. Marquardt (2014) showed that in Indonesia, renewable energy promotion is hampered by weak coordination between levels of government, limited capacity of regional actors, and minimal consultation in policy formulation. This finding aligns with Ostrom's (2010) view on the importance of polycentric governance, where the successful management of public resources depends heavily on the involvement of actors at various levels. However, Ostrom also emphasized that a strong hierarchical structure can hinder collaborative learning and the participation of local actors.

Conversely, studies in European countries indicate that more balanced involvement of actors across levels of government can increase the effectiveness of renewable energy policies. Dobravec et al. (2021) show that aligning roles between national, regional, and local governments, as well as the involvement of local actors in energy planning, contributes to more effective policy implementation. Other studies also emphasize the importance of inter-actor networks and public-private partnerships in cross-level governance, particularly in complex policy sectors such as energy and the environment (Bache & Flinders, 2004; Beisheim, Campe, & Schäferhoff, 2011; Slaughter & Hale, 2011).

In the Indonesian context, despite the implementation of decentralization, the energy sector still exhibits central government dominance in determining policy direction and technical control. Local governments tend to play an administrative role, while non-state actors such as private companies and state-owned enterprises are more involved in the technical aspects of energy production and distribution. Local communities, as the directly affected parties, are often passive and minimally involved in decision-making processes (Marquardt, 2014; Piattoni, 2010).

Based on these conditions, this study aims to analyze the involvement of actors in renewable energy utilization in South Sulawesi from a multi-level governance perspective. The research focuses on the division of authority, roles, and levels of involvement of state and non-state actors across levels of government. By examining the patterns of relationships between these actors, this study is expected to provide an empirical contribution to enriching MLG studies in the energy sector and providing a more critical understanding of the challenges of renewable energy governance at the regional level in Indonesia.

2. METHODS

This research uses a qualitative approach with a case study design, chosen to deeply understand the patterns of actor involvement in renewable energy utilization in South Sulawesi Province. This approach allows researchers to explore the authority relations, roles, and interactions between state and non-state actors across levels of government in the context of renewable energy policy. The analytical framework used is multi-level governance, focusing on the division of authority between levels of

government, vertical and horizontal coordination, and the involvement of non-state actors in the policy process.

Data collection was conducted through in-depth interviews with key informants from the central government, provincial government, district government, the private power plant operator, PLN Nusantara Power, and communities surrounding the renewable energy power plant. Furthermore, this study utilized document analysis of energy policies and planning, such as the National Energy General Plan (RUEN), the South Sulawesi Provincial Regional Energy General Plan (RUED), and PLN's Electricity Supply Business Plan (RUPTL). Data were analyzed thematically by linking empirical findings to the multi-level governance framework, thus obtaining a comprehensive picture of the patterns of actor involvement and the dynamics of renewable energy governance at the regional level.

3. RESULTS AND DISCUSSION

The involvement of actors in renewable energy utilization in South Sulawesi takes place within a multi-level structure and involves various parties from across government levels and the non-governmental sector. These actors include the central government through the National Energy Council (DEN) and the Ministry of Energy and Mineral Resources (ESDM), the provincial government through the South Sulawesi Provincial ESDM Office, the district governments as the locations of power plants, private companies as managers of renewable energy power plants, PT PLN (Persero) as the manager of the electricity distribution system, and the community as the party directly impacted by power plant construction. The relationships between these actors demonstrate differences in roles, authority, and levels of involvement in the overall process of renewable energy utilization.

At the central level, actor involvement is dominant in determining the direction of renewable energy policy and development. A member of the National Energy Council explained that renewable energy policy does not stand alone but is part of a comprehensive national energy policy that regulates all types of energy. He emphasized that renewable energy development is carried out in stages through the energy transition process, while still considering economic aspects and the stability of the national energy supply.

At the community level, involvement in renewable energy utilization appears very limited and passive. Communities surrounding the Jeneponto Wind Power Plant (PLTB) were not involved in the planning or decision-making process for the power plant's construction, thus lacking the opportunity to influence policy direction in their region. Their involvement was only temporary during the construction phase as laborers, and there was no ongoing pattern of continued involvement after construction was completed.

Interviews revealed that the involvement of actors in renewable energy utilization in South Sulawesi forms a hierarchical and centralized relationship structure. The central government, through the National Energy Council and the Ministry of Energy and Mineral Resources, holds primary control over policy direction, development design, and technical regulations for renewable energy. The central government plays a key role not only in formulating national policies but also in controlling the flow of infrastructure development through the institutional mechanisms of the Directorate General of New, Renewable Energy and Energy Conservation (DGREEKE), including regulating cooperation with external parties.

At the provincial level, the role of local governments appears to be more of an administrative extension of central policy. The South Sulawesi Provincial Government is not directly involved in the initial planning stages, strategic decision-making, or technical implementation of power plant construction. Its role is more focused on coordinating, receiving activity reports, and managing regional administration after the project is underway. This indicates that the provincial government's scope for intervention in renewable energy utilization is relatively limited.

At the district level, actor involvement has actually narrowed. The Jeneponto Regency Government no longer has authority in the energy sector since the transfer of this function to the provincial level. The district's involvement remains limited to overseeing community land use, receiving fiscal benefits through street lighting taxes, and managing social impacts. Thus, the district government is not a decision-maker, but rather a party that suffers the consequences of policy.

On the other hand, the involvement of private actors is strong in electricity production, but limited in direct relations with the community. The Sidrap Wind Power Plant (PLTB Sidrap) serves as a generator of electricity, which is fully distributed to PLN (State Electricity Company), with no involvement in the distribution process. The entire relationship between electricity production and utilization in the community is controlled by PT PLN, the electricity system operator. PLN serves as the

primary liaison between the generator and the community, as well as managing the network, distribution, and customer service.

At the most downstream level, the community is positioned as both the beneficiary and the beneficiary of the renewable energy plant development. They are not involved in the planning or decision-making process and are only involved in the construction phase as temporary labor. The impacts felt by the community are primarily related to road infrastructure improvements and changes in economic activity, although long-term economic benefits have not been felt evenly.

Thus, the results of this study indicate that actor involvement in renewable energy utilization in South Sulawesi occurs in a strong vertical pattern, with the central government dominating, provincial and district governments playing a limited role, private companies and PLN technically dominating electricity production and distribution, and the community remaining passively involved as beneficiaries and policy impact recipients.

The involvement of actors in renewable energy utilization in South Sulawesi is not only evident in field practices as revealed in interviews, but can also be clearly traced through national and regional energy planning documents, namely the National Energy General Plan (RUEN), the South Sulawesi Provincial Regional Energy General Plan (RUED), and the PLN Electricity Supply Business Plan (RUPTL). These three documents demonstrate how the relationships of authority, roles, and dominance of actors at each level of government have been systematically designed within a formal policy framework.

In the RUEN document (2017), the central government positions renewable energy as part of the long-term strategy for the national energy mix, targeting a gradual increase in the contribution of new and renewable energy. The RUEN explicitly positions the central government as the primary policy-directing actor, while regional governments play the role of implementing and adjusting policies at the local level. This aligns with the assertion of informants from energy council members that the energy transition will be carried out gradually while still considering the availability, affordability, and stability of the national energy supply. Thus, the RUEN is not only a technocratic document but also a political policy instrument that strengthens the central government's dominance in determining the direction of renewable energy development in the regions.

Furthermore, the South Sulawesi Provincial RUED, established through Regional Regulation Number 2 of 2022, demonstrates how the provincial government formalized the direction of regional energy policy within a framework that fully adheres to the RUEN. In the RUED, renewable energy specifically wind, solar, and bioenergy is designated as a superior regional potential. However, while this document normatively provides planning space for the provincial government, the province's role remains substantively coordinating and administrative, rather than as the primary determinant of the direction of power plant development. This position aligns with Bayu's admission that the provincial government primarily receives information and is not directly involved in the planning, decision-making, and operation of power plants. Thus, the RUED demonstrates that regional authority is delegative, not fully autonomous.

The dominance of central actors is further strengthened when examined through the PLN 2021–2030 RUPTL document. In the RUPTL, all power plant development plans, including the Sidrap PLTB and Jeneponto PLTB, are designated as part of a national electricity system project integrated into the PLN network. This means that although the power plant is geographically located in South Sulawesi, its technical, commercial, and distribution control systems are fully under the authority of PT PLN (Persero) as the state actor in the electricity sector. This is in line with Yanti's statement that the electricity generated by the PLTB is not distributed directly to the community, but is sold entirely to PLN, as well as the informant's explanation that all data, network administration, and electricity distribution are controlled through the PLN unit.

The district government's involvement in these documents is barely visible. In both the RUEN and RUPTL (Regional Development Plans), the district level is not mentioned as a decision-making actor, but rather as the administrative region where the project is located. This reinforces the findings of an interview with Mr. Andi that since 2017, authority in the energy sector has been transferred from the district to the province. In practice, the district only plays a role in overseeing land use and receiving indirect fiscal benefits through street lighting taxes. Thus, both in policy documents and in field practice, the district government's position is increasingly marginalized in renewable energy governance.

Meanwhile, in the RUPTL document, private companies are positioned as partners providing power generation infrastructure, not as system controllers. The private sector plays a role in the

construction and operation of power plants, but has no control over electricity distribution and policy. This position aligns with Yanti's explanation that the company's authority stops at electricity production, while distribution rests entirely with PLN. Thus, strategic control remains with the state, while the private sector serves as project implementer within the electricity business cooperation scheme.

At the community level, in both the RUEN (Energy Planning Plan), RUED (Energy Planning Plan), and RUPTL (Energy Planning Plan), communities are not positioned as decision-makers, but rather as beneficiaries of energy development. These documents position communities as objects of electricity services, rather than subjects of policy formulation. This is entirely consistent with interviews with residents surrounding the Jeneponto PLTB, who stated that they were not involved in planning or decision-making, and their involvement was only temporary as laborers during construction.

Thus, an integrated analysis of actor involvement, including policy documents and interviews, concludes that the governance of renewable energy utilization in South Sulawesi exhibits a highly hierarchical multi-level governance pattern. Central actors (DEN, the Ministry of Energy and Mineral Resources, and PLN) dominate the policy-making and system control processes, the provincial government serves as an administrative coordinator, district governments are marginalized, the private sector acts as a technical operator, and communities are in the weakest position as recipients of policy impacts.

Although the wind power plants in South Sulawesi are managed by private companies and operate under a business-to-business scheme through a power purchase agreement with PLN, their governance pattern still demonstrates the hierarchical nature of the state. The relationship between the private sector and PLN is indeed business-oriented through a Power Purchase Agreement (PPA), but the freedom of both actors is completely restricted by the national energy policy established by the central government.

Under this scheme, the private sector does not have the freedom to determine to whom electricity is sold, at what price, or how distribution is carried out. All electricity produced by the Sidrap and Jeneponto wind power plants is required to be fed into the PLN system. Yanti emphasized that the companies only sell electricity to PLN and do not distribute it directly to the public. This means that, although the relationship is a business contract, the chain of control remains hierarchical, as the state, through PLN, controls the transmission, distribution, and selling prices of electricity to the public.

On the other hand, from the private sector's perspective, the relationship with PLN is indeed contractual and commercial, where investment viability is determined by the certainty of electricity purchases, the contract term, and the tariff structure. This is what shapes the business-to-business character at the operational level, but not at the policy level. In other words, the private sector is sovereign at the operational production level, but not at the national energy system level.

When linked to PLN's RUPTL document, this position becomes even clearer. In the RUPTL, wind turbines are designated as part of an integrated national electricity supply system. The private sector is positioned solely as a provider of generating capacity, not as a controller of the system. Meanwhile, in the RUEN and RUED, the private sector is also not positioned as a policy-making actor, but rather as a partner in implementing state programs.

Thus, business between the private sector and PLN is not bureaucratic, but remains within a strong state-controlled structure. This model demonstrates that renewable energy governance in South Sulawesi is not a completely free market, but rather a tightly regulated market (state-regulated market). The state determines the direction of the energy transition, controls the grid, controls distribution, and sets tariffs through electricity regulation mechanisms.

From a Multi-Level Governance perspective, this situation indicates that relationships between actors are not entirely horizontal, despite the existence of contractual relations between PLN and the private sector. Interactions that appear horizontal at the business level are actually embedded within a vertical power architecture. Therefore, renewable energy utilization in South Sulawesi reflects a mixed-level governance structure.

The research findings indicate that renewable energy utilization in South Sulawesi takes place within a hierarchical and centralized multi-level governance structure, with strong central government dominance in almost all policy stages, from formulating strategic direction to technical implementation control. This pattern confirms that renewable energy governance practices in Indonesia do not fully reflect the principles of multi-level governance as conceptualized in the classic MLG literature.

Table 1: Comparison of State Actor Involvement in Renewable Energy Utilization Based on Government Level.

Actor Level	Institution	Form of Role	Field Findings	Position in Governance
Central	President, National Energy Council (DEN), Ministry of Energy and Mineral Resources (ESDM)	Determines national energy policy direction through the National Energy Policy (RUEN) and derivative regulations	Regions are required to adjust to the national energy policy; Regional Energy Plans (RUED) do not have independent policy-setting authority	Dominant actor (policy direction setter)
National Operational	Directorate General of New, Renewable Energy and Energy Conservation (EBTKE), PT PLN (Persero)	Technical planning, power plant construction, network management and electricity distribution	Development and operational interventions are fully controlled by the central government and PLN	Technical controller of the electricity system
Provincial	Provincial Government of South Sulawesi, South Sulawesi ESDM Office	Administrative coordination, facilitation, and reporting	Province only receives information and facilitates projects without strategic authority	Administrative facilitator
Regency (District)	Regency Governments of Sidrap & Jeneponto	Land supervision, monitoring fiscal and social impacts	Authority over energy sector is withdrawn to province; regency not involved in licensing	Marginal actor
Private Sector	Independent Power Producers (IPP) of wind power plants in Sidrap & Jeneponto	Electricity production and investment in power plants	All electricity sold to PLN through Power Purchase Agreements (PPA)	Economic actor (production operator)
Community	Local residents around wind power plants	Receivers of development impacts and temporary labor	Not involved in planning or decision-making processes	Passive actor (policy object)
Source: Research results and document searches				

Within the Multi-Level Governance framework, according to Hooghe and Marks (2001), authority in the MLG system should be distributed across levels of government and involve non-state actors in the decision-making process. However, empirical findings in South Sulawesi indicate that strategic authority remains concentrated at the central level, particularly through the National Energy Council and the Ministry of Energy and Mineral Resources. The central government not only sets targets and policy directions for renewable energy through the RUEN (Renewable Energy and Energy Conservation Agency), but also controls the technical mechanisms for development through the Directorate General of New, Renewable Energy, and Energy Conservation (EBTKE), including cooperation patterns with the private sector and PLN.

This situation demonstrates that the established governance structure is closer to a sectoral hierarchical model, rather than the polycentric governance idealized in the MLG. Piattoni (2010) emphasized that one of the main characteristics of the MLG is the dynamic interaction between the central government and regions and the state and society within the same policy space. However, this study reveals minimal policy negotiation space for regional and non-state actors.

The role of the South Sulawesi provincial government, for example, tends to be administrative and coordinative, rather than strategic. The provincial government is not significantly involved in the initial planning, location determination, or policy design stages of renewable energy projects. This indicates that although energy matters formally fall at the provincial level, substantively, this authority remains controlled by the central government. This finding aligns with the argument of Enderlein, Wälti, and Zürn (2011) that MLG cannot be viewed solely from the formal division of authority but must also be analyzed from the actual capacity and decision-making space at each level. Furthermore, at the district level, actor involvement is even more limited. The Jeneponto Regency Government, as the location of the PLTB, does not have a position as an energy policy decision-maker, but rather plays a role in managing social impacts and receiving fiscal benefits. The transfer of energy authority from the district to the province narrows the scope for local policy, leaving the district government in a more reactive position to policies set from above. This pattern emphasizes the top-down nature of governance in the utilization of renewable energy in the region.

From the perspective of non-state actors, this study shows that the private sector and PT PLN (Persero) play a dominant role in the technical

aspects of electricity production and distribution, but with minimal social participation. Private companies, as power plant operators, operate under a contractual framework with the state and hand over all production to PLN. PLN itself serves as a key liaison between the power plant and the community, but this relationship is one-way and technocratic. Thus, the involvement of non-state actors in this context reflects delegated authority rather than participation in policy governance.

The most striking situation is observed at the community level. Interviews indicate that communities surrounding the wind turbine power plant are not involved in the planning or decision-making process. Their involvement is limited to the construction phase as temporary labor, with no ongoing participation mechanisms. This contradicts the principle of state-society interaction in MLG, which emphasizes the importance of community involvement as part of the legitimacy of public policy (Piattoni, 2010). These findings reinforce the findings of Marquardt's (2014) study, which stated that the renewable energy transition in Indonesia faces serious obstacles due to weak local capacity, a lack of cross-level communication, and minimal consultation in policy formulation. In other words, the main problem lies not in the absence of renewable energy policies, but rather in governance patterns that are not yet inclusive and integrated across multiple levels.

Compared to the context of other countries, such as Austria (Dobravec et al., 2021), where targets and roles across levels of government are aligned, practices in South Sulawesi demonstrate a weakness in the horizontal and vertical dimensions of MLG. Cross-level coordination is more administrative than collaborative, while horizontal relationships with communities and local actors have not yet developed substantively.

Thus, this discussion confirms that renewable energy utilization in South Sulawesi takes place within a multi-level governance framework that is normatively recognized but has not yet been fully realized empirically. The existing governance structure is still dominated by sectoral and centralistic logic, resulting in marginalized roles for local governments and communities. This situation poses a major challenge to efforts to achieve a sustainable and equitable energy transition at the regional level.

4. CONCLUSION

This study concludes that renewable energy utilization in South Sulawesi occurs within a hierarchical and centralized multi-level governance structure, with strong central government dominance in policy formulation, technical control, and the direction of renewable energy development. Although the national policy framework normatively adopts the principle of multi-level governance, field practice indicates that the distribution of authority between levels of government is not yet balanced. Provincial governments play a limited coordinating and administrative role, while district governments lack substantive space in strategic decision-making, instead merely managing the impact of policies established from above.

Conversely, non-state actors such as private companies and PT PLN (Persero) play a dominant role in electricity production and distribution, but their involvement is technocratic and lacks strong participatory relationships with the community. Communities, as the directly impacted parties, are passive and excluded from the planning and decision-making processes. This condition shows that the utilization of renewable energy in South Sulawesi is still dominated by a top-down approach and does not fully reflect the main principles of multi-level governance, especially in terms of coordination across levels of government and the meaningful involvement of non-state actors, thus having implications for the limited legitimacy and sustainability of policies at the local level.

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