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ARTICLE

COLLABORATIVE GOVERNANCE IN ENVIRONMENTAL IMPACT ANALYSIS OF MARGAMULYA VILLAGE ROAD CONSTRUCTION, PASIRJAMBU DISTRICT, BANDUNG REGENCY

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Abstract

The Environmental Impact Assessment (EIA) serves as a policy instrument to manage and mitigate environmental impacts arising from development activities. Beyond its technical dimension, the EIA process requires interaction and cooperation among multiple stakeholders within a collaborative governance framework. This study aims to examine the roles of government, private sector, and community actors in the implementation of collaborative governance in the EIA process in Margamulya Village, Pasirjambu District, Bandung Regency. This research adopts a qualitative approach using a case study design. Data were collected through in-depth interviews with relevant stakeholders, field observations, and document review. The findings reveal that the government performs regulatory, supervisory, and facilitative roles in the EIA process, while the private sector is responsible for fulfilling environmental obligations in accordance with applicable regulations. Meanwhile, the community plays a strategic role as directly affected stakeholders and as a channel for public aspirations and social control. However, collaborative practices among actors have not been fully optimized due to limited access to information, low community participation capacity, and weak coordination among stakeholders. This study highlights the need to strengthen collaborative governance mechanisms to improve the quality of the EIA process and to support sustainable development.

Keywords: Collaborative Governance, Environmental Impact Assessment (EIA), Policy Actors, Sustainable Development.

A. INTRODUCTION

Economic and infrastructure development are key agendas for improving public welfare and stimulating regional growth. However, development activities that are not managed in a sustainable manner can generate adverse impacts on the environment and on the social life of communities. Therefore, policy instruments are needed to ensure that every proposed business plan or activity comprehensively considers environmental aspects. One of the most important instruments in environmental management is the Environmental Impact Assessment (EIA) or Analisis Mengenai Dampak Lingkungan (AMDAL), which functions as a preventive tool to identify, predict, and control environmental impacts before a project is implemented (Enríquez-de-Salamanca, 2021).

In practice, the EIA process is not merely technocratic; it also requires the involvement of multiple actors with different interests and roles. The government, as regulator, holds

authority over policy formulation, permitting, and oversight of EIA implementation (Morrison-Saunders et al., 2021). Meanwhile, the private sector, as project proponent, is obliged to comply with environmental provisions, prepare EIA documents in an accountable manner, and implement environmental management and monitoring plans. On the other hand, communities those most directly affected by development activities have the right to access information, express their views, and participate in decision-making processes, yet the quality of participation is often shaped by how citizen inputs are collected and communicated in practice (Lee et al., 2022). This situation indicates that the success of EIA implementation depends heavily on synergy and collaboration among actors.

A collaborative governance approach is increasingly relevant in the context of environmental management, particularly within the EIA process. Collaborative governance emphasizes joint decision-making that involves government, the private sector, and communities in an equitable, transparent, and participatory manner (Avoyan et al., 2024). Through collaboration, it is expected that environmental policies will become not only administratively legal, but also socially legitimate and ecologically sustainable. Nevertheless, implementing collaborative governance in the EIA process still faces various challenges, including power imbalances among actors, limited community capacity, and constraints in transparency and accountability (Arai et al., 2021).

At the national level, EIA implementation in Indonesia is grounded in Law No. 32 of 2009 on Environmental Protection and Management, which affirms that any planned business and/or activity that may cause significant environmental impacts is required to have an AMDAL as a prerequisite for permitting. This law also guarantees the public's right to obtain information, participate, and seek justice in environmental management. These provisions were further reinforced through Law No. 11 of 2020 on Job Creation, which integrates AMDAL into a risk-based business licensing system (Hadi et al., 2023).

As an implementing regulation, the government issued Government Regulation No. 22 of 2021 on the Implementation of Environmental Protection and Management, which provides detailed rules on AMDAL preparation procedures, public participation, the role of government, the responsibilities of business actors, and oversight of environmental approvals. This regulation underscores the importance of multi-stakeholder involvement in the AMDAL process, in line with the principles of collaborative governance (Azhara & Mardhatillah, 2023).

At the provincial level, the Government of West Java Province has established various policies and regulations related to environmental management and sustainable development, such as the West Java Provincial Regulation on Environmental Protection and Management, as well as regional planning documents (RPJMD and Provincial RTRW) that serve as references for AMDAL implementation in West Java. These regulations function to translate national policy into the regional context and characteristics.

Furthermore, at the regency level, the Bandung Regency Government has authority to implement AMDAL in accordance with the scale and delegated powers of the region. This is reflected in the Bandung Regency Regulation on Environmental Protection and Management, along with regent regulations governing licensing services procedures, environmental approvals, and public involvement in the AMDAL process. The regency government plays a significant role as a facilitator and supervisor of EIA implementation at the local level.

At the sub-district *(kecamatan*) level, the role of the sub-district government is primarily coordinative and facilitative, especially in bridging communication between the regency government, business actors, and village administrations. The sub-district helps ensure that AMDAL socialization and public consultation processes effectively reach affected

communities.

Meanwhile, at the village level, provisions related to environmental management and public participation may be set out in Village Regulations (*Perdes*), Village Head Decrees, and village deliberation forums (*Musdes*). Under Law No. 6 of 2014 on Villages, village governments have the authority to protect community interests and the village environment, including facilitating citizen participation in the AMDAL process and conveying community aspirations to higher levels of government. In the context of Margamulya Village, the village's role becomes crucial as a representative of affected community interests within a collaborative governance framework.

In Bandung Regency particularly in Margamulya Village, Pasirjambu Sub-district—the dynamics of development and economic activities have the potential to generate significant environmental impacts. Geographic conditions, local social characteristics, and the presence of multiple development interests make the EIA process an arena of interaction among local government, private actors, and the local community; in many contexts, affected groups also pursue multiple formal and informal channels when statutory participation alone is experienced as insufficient (Neto & Mallett, 2023). Therefore, it is important to examine how the roles of each actor are enacted within the framework of collaborative governance, and the extent to which such collaboration supports sustainable environmental management.

Based on this background, the present study aims to analyze the roles of government, the private sector, and community actors in collaborative governance within the Environmental Impact Assessment (EIA) process in Margamulya Village, Pasirjambu Sub-district, Bandung Regency. This study is expected to contribute academically to the advancement of collaborative governance and environmental management scholarship, while also providing practical input for stakeholders to improve the effectiveness and quality of EIA implementation at the local level

B. LITERATURE REVIEW

Environmental Impact Assessment (EIA)

Environmental Impact Assessment (EIA) or *Analisis Mengenai Dampak Lingkungan* (AMDAL) is a policy instrument used to ensure that environmental considerations become an integral part of development planning and decision-making processes. Glasson, Therivel, and Chadwick (2012) state that EIA is a systematic process aimed at identifying, predicting, and evaluating the environmental impacts of a proposed plan, business activity, or development project before a development decision is made.

This perspective indicates that EIA functions as a preventive tool oriented toward avoiding environmental degradation from the earliest planning stages. From the author's standpoint, EIA is crucial because it can steer development not merely toward short-term economic interests, but also toward environmental sustainability and long-term community welfare. Canter (1996) explains that EIA covers not only analyses of biophysical impacts, but also social, economic, and public health impacts. This illustrates that EIA has a broad multidisciplinary dimension and cannot be separated from the social life of communities.

The author views this multidimensional approach in EIA as strengthening the argument that community involvement is an inseparable element of the process. Communities are not only affected parties; they also possess direct experience and local knowledge that are important for identifying potential environmental impacts that may not be captured through technical analysis alone.

Furthermore, Jay et al. (2007) in *Environmental Impact Assessment Review* emphasize that EIA is fundamentally a participatory and transparent public decision-making process. They reveal that many EIA failures across countries stem from weak public participation and

limited information transparency during the preparation and appraisal of EIA documents. This view suggests that the primary problem in EIA often lies not in document completeness or analytical methods, but in process governance. The author argues that when EIA is implemented merely as an administrative procedure, the goals of environmental protection and social justice are difficult to achieve optimally. Cashmore (2004) sees EIA as a policy instrument that cannot be detached from political contexts and power relations. EIA often becomes an arena where multiple interests meet—ranging from government interests in promoting development, private-sector interests in securing profits, to community interests in safeguarding environmental quality.

From the author's perspective, this condition shows that EIA is not a neutral process. Therefore, managing interactions among actors becomes critical so that the EIA process is not dominated by particular interests, but instead produces decisions that are fair and socially acceptable. In relation to environmental policy effectiveness, Bond, Morrison-Saunders, and Howitt (2013) argue that EIA loses its meaning if it cannot influence substantive decisions regarding the feasibility of a project. They stress that EIA should function as a decision-making tool, not merely as a formal requirement in the permitting process.

The author interprets this position as a critique of EIA practices that tend to be procedural. If EIA recommendations are not seriously integrated into development decisions, then EIA becomes a formality document that fails to provide real environmental protection.

O'Faircheallaigh (2010) underscores the importance of public participation in EIA, particularly for local communities directly affected by a project. He states that meaningful public participation can improve decision quality, reduce conflict, and strengthen the social legitimacy of development projects.

The author argues that public participation in EIA is important not only from a democratic standpoint, but also from the standpoint of policy quality. Local communities often have contextual understanding of environmental and social conditions that is not always reflected in technical assessments. Moreover, Morgan (2012) notes that the main challenges of EIA in developing countries include weak institutional capacity, limited transparency, and low public involvement in environmental decision-making. This observation is relevant to the Indonesian context, especially at the local level. The author contends that improving EIA quality requires strengthening governance to promote openness, accountability, and collaboration among involved actors.

Thus, it can be concluded that EIA is a complex and multidimensional environmental policy instrument. Its success is determined not only by the quality of technical analysis, but also strongly influenced by patterns of interaction, participation, and cooperation among government, the private sector, and communities. Therefore, a collaborative governance approach becomes relevant to examine in order to enhance the effectiveness and legitimacy of the EIA process, particularly at the local level such as in Margamulya Village, Pasirjambu District, Bandung Regency.

The Concept of Collaborative Governance

Collaborative governance is an approach to public governance that emphasizes the involvement of cross-sector actors in decision-making processes and in implementing public policies. This approach emerged as a response to the increasing complexity of public problems that cannot be resolved effectively through hierarchical government mechanisms or market mechanisms alone. Emerson, Nabatchi, and Balogh (2012) define collaborative governance as a process and structure of public decision-making that constructively involves government actors, the private sector, and society to achieve shared goals. This definition emphasizes that collaboration is not merely informal cooperation; rather, it is a structured process oriented toward the public interest.

From the author's standpoint, this definition suggests that collaborative governance focuses on interactions among actors who are relatively equal and mutually interdependent. In the context of environmental policy, this approach is particularly relevant because environmental issues involve multiple interests and directly affect communities and ecosystems. Bryson, Crosby, and Stone (2006) argue that cross-sector collaboration arises when a public problem is complex, highly uncertain, and involves actors whose resources and authority are dispersed. They assert that no single actor is capable of solving such problems independently.

This view reinforces the argument that environmental policy, including the EIA process, requires the involvement of many parties. The author considers that government needs technical information and compliance from business actors, while communities have direct stakes and empirical experience regarding environmental impacts occurring in their area. Ansell and Torfing (2016) emphasize that collaborative governance also contributes to improving democratic quality through dialogue, deliberation, and trust-building among actors. They note that collaborative processes enable knowledge exchange and collective learning.

The author interprets this argument as evidence that collaborative governance not only produces more inclusive policies, but also strengthens policy legitimacy in the eyes of the public. In the EIA process, social legitimacy is a key factor for ensuring that development decisions are accepted and implemented sustainably. Newig and Fritsch (2009), in their study on environmental policy, find that participation and collaboration of non-government actors can increase policy legitimacy, although effectiveness is strongly influenced by institutional design and power balance among actors.

This suggests that collaboration does not always proceed ideally. The author argues that without clear rules of the game and fair participation mechanisms, collaborative processes may be dominated by actors with greater power and resources, such as government or the private sector. Emerson and Nabatchi (2015) emphasize that collaborative governance requires long-term commitment, clarity of roles, and sustained communication mechanisms. They state that collaboration failures often stem from low trust and weak leadership in facilitating dialogue.

The author views trust and facilitative leadership as keys to successful collaborative governance. In the context of EIA, local governments play a strategic role as facilitators who bridge private-sector interests and community aspirations so that the process can proceed transparently and participatorily. Huxham and Vangen (2005) note that collaboration often faces challenges such as conflicting interests, differing values, and unequal capacities among actors. They stress the importance of collaborative management to sustain cooperation. This is relevant at the local level, where communities often face limited access to information and technical capacity. The author argues that without efforts to empower communities, collaborative governance in EIA risks becoming symbolic and failing to generate tangible environmental management outcomes.

In the context of local public policy, Sirianni (2009) emphasizes that collaborative governance can enhance policy effectiveness when supported by inclusive institutions and a strong culture of participation. He argues that collaboration requires deliberative spaces that are safe and open to all actors. The author suggests that the success of collaborative governance is strongly shaped by local context, including social characteristics of the community, institutional capacity of local government, and private-sector commitment to sustainable development principles.

In summary, collaborative governance can be understood as a governance approach emphasizing cross-sector cooperation, dialogue, and participation in public decision-making.

In the context of the EIA process, this approach is important to ensure that environmental policy is not only administratively valid, but also socially legitimate and capable of promoting sustainable environmental management at the local level, including in Margamulya Village, Pasirjambu District, Bandung Regency.

The Role of Communities in the Environmental Impact Assessment (EIA) Process

Communities are key actors in the EIA process because they are the parties most directly affected by proposed development plans or activities. Community involvement in EIA is not only related to democratic rights, but also contributes to the quality and legitimacy of environmental policy. Arnstein (1969), through the concept of the *ladder of citizen participation*, explains that participation has levels ranging from tokenistic participation to participation that grants real power to citizens in decision-making. Although developed in a broader public planning context, the principle is relevant for understanding community participation in EIA. The author argues that participation in EIA should ideally reach meaningful participation, rather than mere formality. When communities are involved only as listeners without the ability to influence decisions, the EIA process loses social legitimacy.

O'Faircheallaigh (2010) emphasizes that community participation in EIA can enhance decision quality, reduce conflict, and strengthen social acceptance of development projects. He also highlights that local communities often have contextual knowledge that is important regarding environmental and social conditions in their area. This indicates that communities are not only impact recipients, but also valuable information sources. The author argues that day-to-day experiences of communities interacting with their environment can provide input not always captured in technical studies. Petts (2004) states that public participation in EIA plays a vital role in building trust among communities, government, and business actors. Open and transparent consultation processes can reduce suspicion and foster shared understanding of project risks and benefits.

The author sees trust as a key element in EIA. When communities feel heard and respected, social conflicts can be minimized, and environmental policy implementation becomes more effective. However, Morgan (2012) notes that in many developing countries, community participation in EIA is constrained by limited access to information, low technical capacity, and power asymmetries with other actors. The author argues that these conditions often weaken the community's position in EIA. Therefore, empowerment and facilitation are necessary so communities can participate effectively and on more equal footing in environmental decision-making.

The Role of Government in the Environmental Impact Assessment (EIA) Process

Government plays a central role in EIA as regulator, facilitator, and supervisor of environmental policy implementation. Government is responsible for ensuring that development plans comply with principles of environmental protection and management. Howlett and Ramesh (2003) state that within the public policy cycle, government roles include policy formulation, implementation, and evaluation. In the EIA context, these roles are reflected in drafting regulations, issuing environmental permits, and monitoring the implementation of environmental management plans.

The author argues that the government's role is not only administrative, but also strategic in balancing development interests with environmental protection. Government has the authority to determine a project's environmental feasibility based on EIA results. Birkland (2016) emphasizes that government acts as a guardian of the public interest in environmental policy. Government must ensure decisions do not benefit only particular groups, but also protect broader public interests and future generations. This perspective implies moral and political responsibility in EIA. The author argues that failure in government oversight can lead to environmental violations and social conflict.

Within collaborative governance, Emerson and Nabatchi (2015) note that government has an important role as dialogue facilitator and mediator among actors. Government is expected to create inclusive and transparent participation spaces. The author views this facilitative role as crucial in EIA, especially at the local level. Local governments serve as a bridge between private-sector interests and community aspirations, so the EIA process can be conducted fairly and participatorily. However, Cashmore et al. (2010) note that governments often face political and economic pressures during EIA, which can affect the objectivity of decision-making. The author argues that such challenges demand strong governmental commitment to integrity and independence of the EIA process so that environmental protection goals remain achievable.

The Role of the Private Sector in the Environmental Impact Assessment (EIA) Process

The private sector is a key actor in implementing development and is the primary subject of the EIA process. Business actors are obliged to prepare EIA documents and implement environmental management and monitoring plans in accordance with applicable regulations. Porter and Kramer (2006) argue that corporate social and environmental responsibility is inseparable from business activities. They emphasize that environmental sustainability should be part of corporate strategy, not merely a legal obligation.

The author views this as relevant to EIA, where the private sector is expected not only to comply with regulations but also to demonstrate genuine commitment to environmental protection and local community welfare. Jenkins (2005) notes that private-sector engagement in environmental management is often driven by regulatory pressure, community demands, and corporate reputation. In many cases, compliance with EIA is seen as part of maintaining corporate social legitimacy.

The author argues that social legitimacy is crucial for the private sector. When companies disregard environmental and social impacts, risks of conflict with communities and government increase, potentially undermining business sustainability. Hart (1995) suggests that companies integrating environmental issues into business strategy tend to gain long-term competitive advantage. This implies EIA compliance is not always a burden; it may provide strategic benefits. The author interprets this as encouraging the private sector to view EIA as an opportunity to strengthen environmental management and community relations, rather than merely an administrative obligation. However, Banerjee (2008) criticizes that in practice, corporate environmental commitments are often symbolic and image-oriented. This can lead to EIA documents being prepared only to meet permitting requirements. The author argues that this condition is a serious challenge to EIA. Therefore, government oversight and community participation are needed to ensure the private sector carries out substantive environmental responsibility.

Environmental Impact Assessment in Indonesia (AMDAL)

AMDAL is a primary instrument in Indonesia's environmental protection and management system. AMDAL functions as a tool to thoroughly assess significant impacts of a proposed business and/or activity on the environment before the activity is carried out. Its purpose is to ensure that development proceeds in balance with economic, social, and environmental sustainability concerns. Sadler (1996) explains that AMDAL is part of the EIA process formalized within a country's national legal framework. AMDAL functions not only as an impact analysis tool, but also as a public decision-making mechanism regarding a project's environmental feasibility.

The author argues that AMDAL is strategically important because it forms the basis for determining whether a proposed activity is environmentally feasible. Thus, AMDAL is not merely a technical document; it is a policy instrument with wide legal and social implications. Wood (2003) states that AMDAL is designed to anticipate negative

environmental impacts from the early planning stage, so that management and monitoring measures can be prepared before project implementation. This highlights AMDAL's preventive function in environmental management.

From the author's perspective, this preventive function is crucial at the local level. Without careful impact assessment, development risks causing environmental damage and social conflict that may be difficult to remedy later. In Indonesia, Siahaan (2009) explains that AMDAL is an environmental administrative law instrument and a requirement for issuing environmental permits. AMDAL is legally binding for business actors and serves as a basis for government oversight and environmental law enforcement.

The author argues that AMDAL's legal position reinforces the government's role as the primary controller in ensuring compliance with environmental protection principles. However, AMDAL effectiveness depends heavily on implementation quality and commitment from all actors involved. Fischer (2007) emphasizes that effective AMDAL requires meaningful public participation. Community involvement is not only to capture aspirations, but also to improve information quality and decision legitimacy. This suggests AMDAL cannot be separated from public engagement. The author contends that without substantive participation, AMDAL may lose public trust and trigger rejection of development projects. Nevertheless, Hardjasoemantri (2010) notes that AMDAL implementation in Indonesia still faces problems such as weak document quality, limited capacity among AMDAL preparers, and low levels of monitoring for implementing the Environmental Management Plan (RKL) and Environmental Monitoring Plan (RPL).

The author argues that these issues show a gap between legal norms and field practice. AMDAL is often treated as an administrative requirement, while substantive environmental management receives insufficient attention. Marsudi (2015) further notes that AMDAL challenges at the regional level relate to limited human resources, weak inter-agency coordination, and minimal involvement of local communities in the AMDAL appraisal process. This is relevant to Margamulya Village, where AMDAL involves multiple actors with differing capacities and interests. The author argues that without effective coordination and collaboration mechanisms, AMDAL will struggle to function optimally as an environmental protection instrument.

In conclusion, AMDAL is a technical, administrative, and socio-political environmental policy instrument. Its success is determined not only by the quality of impact analysis but also by the engagement of government, the private sector, and communities in a transparent, participatory, and accountable process. Therefore, strengthening collaborative governance in AMDAL implementation is essential to support sustainable environmental management at the local level.

Theoretical Framework

Village road construction in Margamulya Village requires careful attention to environmental impacts. Although the primary purpose of development is to improve accessibility, community mobility, and distribution of agricultural products, every development activity can potentially produce negative impacts on the environment and society. Therefore, the AMDAL process becomes an important instrument to ensure that village road construction is carried out sustainably.

In practice, AMDAL cannot be conducted in a purely technocratic manner. The process demands collaboration among the village government, communities, and the private sector so that decisions about village road construction are legally, socially, and ecologically acceptable. Collaborative governance is a relevant approach because it emphasizes participation, transparency, coordination, and joint decision-making among actors.

This collaboration is influenced by several key factors: starting conditions, facilitative

leadership, institutional design, and the collaborative process itself. By understanding this theoretical framework, the researcher can analyze how each actor's role operates in the AMDAL process and how collaboration can improve the effectiveness of mitigating environmental impacts of village road construction.

Collaborative Governance is an approach to managing public policies or development projects that emphasizes active participation from multiple actors, transparency, and joint decision-making. According to Ansell & Gash (2008), collaborative governance emerges when government, communities, and the private sector interact in formal and informal arenas to achieve shared goals

In Ansell & Gash's theory, the success of collaborative governance is shaped by four main components:

- Starting Conditions: These include the shared issue at stake, actors' interests, resource capacity, and the history of interaction among stakeholders. More favorable starting conditions make collaboration easier to establish.
- Facilitative Leadership: The role of leadership in mediating conflicts, encouraging participation, and maintaining effective communication.
- Institutional Design: The structures, rules, procedures, and formal mechanisms that regulate collaborative interactions.
- Collaborative Process: The actual interaction among actors, participatory decision-making, and the implementation of collaborative outcomes.

In the context of AMDAL (Environmental Impact Assessment), collaborative governance helps ensure that development decisions are not only administratively lawful, but also socially legitimate and ecologically sustainable.

C. RESEARCH METHODOLOGY

This study employs a qualitative approach with a descriptive research type to develop an in-depth understanding of the processes, meanings, and interaction dynamics among actors in implementing collaborative governance within the Environmental Impact Assessment (EIA) process, known locally as AMDAL. A qualitative approach is selected because it enables the researcher to explore social realities comprehensively from the perspectives of actors who are directly involved in the AMDAL process. The descriptive type is used to systematically and factually describe the roles of government, the private sector, and the community without testing hypotheses. The analysis focuses on how inter-actor roles are enacted, what obstacles arise, and what solutions can be proposed within a collaborative governance framework. Through this lens, the study is expected to generate a complete empirical account of AMDAL practices at the local level.

The research method is qualitative with a case study design because the inquiry concentrates on a single specific context, namely Margamulya Village, Pasirjambu District, Bandung Regency. A case study design allows the researcher to examine the phenomenon holistically, including local characteristics, social conditions, institutional configurations, and the interplay of interests among actors within the AMDAL process. Under this approach, AMDAL implementation is interpreted not only from a normative and regulatory standpoint but also through on-the-ground implementation practices and coordination mechanisms. The complexity of collaborative governance in AMDAL is understood as the outcome of interactions among social factors, institutional arrangements, and shifting interests that may evolve with project dynamics. Accordingly, the study positions actors' perceptions, trust, and commitment as key dimensions that must be interpreted qualitatively.

Data are collected through semi-structured in-depth interviews, participant observation, and document analysis to ensure that the evidence is valid, comprehensive, and contextually

grounded. Interviews target informants from three primary groups: village government (the Village Head and Village Secretary), private-sector actors/business operators with active AMDAL documentation, and community members who are affected by and involved in environmental oversight. Community informants are purposively drawn from RW 04, RW 11, and RW 19 to capture variation in experiences and participation across different socio-environmental conditions. Observation is used to examine development activities, patterns of interaction among actors, and the implementation of the Environmental Management and Monitoring Plans (RKL–RPL) or other management measures specified in AMDAL documents. Document analysis covers AMDAL/UKL-UPL files, relevant laws and regulations, monitoring reports and coordination meeting minutes produced by local government, and supporting archives such as local publications and reports on development activities.

The collected data are processed through transcription, reduction, thematic classification, and systematic archiving to ensure traceability while maintaining informant confidentiality. Data analysis follows the interactive model proposed by Miles, Huberman, and Saldaña, which involves iterative cycles of data reduction, data display, and conclusion drawing/verification. Findings are presented in descriptive narratives, which may be complemented by tables or diagrams to highlight relationship patterns, differences in perspectives, and bottlenecks in collaboration. The credibility of the findings is strengthened through source triangulation (government, private sector, community) and methodological triangulation (interviews, observation, documentation) to ensure informational consistency. Through these procedures, the study is expected to clarify the dynamics of collaborative governance in AMDAL and to formulate recommendations for strengthening environmental management coordination in Margamulya Village.

D. RESULT AND DISCUSSION

Existing Condition of Village Road Development in Margamulya Village

Based on field observations and documentation carried out by the researcher, the condition of the village road in Margamulya Village prior to the implementation of the development project was inadequate. The road had a limited width, with an uneven surface, and parts of it still consisted of an older layer that had already deteriorated. In several sections, the road exhibited signs of declining quality, including cracks, small potholes, and a surface that became slippery when exposed to rainwater. These conditions reduced community accessibility, particularly for vehicles transporting agricultural products and four-wheeled vehicles.

Figure 1. Initial Existing Documentation
Source: Processed by Researchers, 2025

In addition to the physical road issues, the surrounding environmental conditions also present significant potential environmental impacts. Village roads are located in areas with relatively hilly terrain and are flanked by agricultural land and residential areas. During the rainy season, rainwater tends to flow directly onto the road surface due to the lack of an adequate drainage system. This has the potential to cause waterlogging, accelerate road damage, and increase the risk of soil erosion along the roadside.

After the village road construction, the physical condition of the road has significantly improved. The road surface has become smoother and more robust, facilitating community mobility in carrying out daily activities, whether for economic, educational, or social purposes. This improved road quality has also impacted the smooth distribution of agricultural products and public access to public services. However, field observations indicate that road construction also has consequences for the surrounding environment. In some sections of the road, changes in surface structure and elevation of the road surface affect rainwater flow patterns. If not managed properly, this condition has the potential to cause flooding on the roadside and accelerate erosion of cliffs and surrounding land. Therefore, the presence of well-functioning drainage channels is a crucial aspect in maintaining the sustainability of village road development.

Figure 2: Existing Condition After Construction
Source: Processed by Researchers, 2025

The existing conditions indicate that the construction of village roads cannot be viewed merely as physical infrastructure development, but also as an activity with environmental and social implications. In this context, the application of Environmental Impact Assessment (AMDAL/EIA) becomes an essential instrument to identify, mitigate, and control potential negative impacts that may arise. In addition, the involvement of the village government, local communities, and other relevant stakeholders in the planning and oversight process forms part of *collaborative governance* practices, aiming to ensure that village road development proceeds in a sustainable manner and remains responsive to local conditions.

The construction of a village road in Margamulya Village, Pasirjambu Sub-district, Bandung Regency, represents one of the village government's efforts to improve accessibility, residents' mobility, and the distribution of agricultural products. The road, which was previously damaged and narrow, hindered residents' daily activities especially during the rainy season when the soil became slippery and prone to landslides. This situation limited access for vehicles, including agricultural vehicles and public transportation.

In the field, I found that residents from RW 04, RW 11, and RW 19 were highly aware of the importance of road construction, yet they were also concerned about environmental

impacts such as waterlogging, soil erosion, and potential damage to agricultural land. Some residents actively participated in village deliberation meetings, providing input on road alignment and risk mitigation, while others appeared passive due to limited technical understanding of AMDAL documentation.

The village government—represented by the Village Head (Kades) and Village Secretary (Sekdes)—attempted to facilitate deliberation forums and cross-actor coordination, ensuring that residents received information regarding the construction plan and environmental impact mitigation. The private sector involved in the road project played a primary technical role, ranging from preparing the AMDAL document to implementing construction; however, their engagement in community forums remained limited.

This empirical reality shows that AMDAL implementation in Margamulya Village is not merely a matter of regulatory compliance, but also a collaborative process among government, community, and private actors. The success of village road development depends heavily on the strength of collaboration, communication, and the engagement of all actors, so that development can proceed smoothly without compromising environmental sustainability and residents' interests.

Based on these observations, the following analysis elaborates on how *collaborative governance* is applied in the AMDAL process for village road construction, using the theoretical framework of Ansell & Gash (2008), which emphasizes Starting Conditions, **Facilitative Leadership**, **Institutional Design**, and the **Collaborative Process**.

Starting Conditions

Within Ansell & Gash's framework, *starting conditions* refer to initial factors that shape the formation of collaborative governance. These conditions include shared issues, actors' interests and objectives, resource capacities, and the history of interaction among actors. In the village road construction in Margamulya Village, these starting conditions are clearly visible in the field.

The existing village road was severely damaged, narrow, and difficult to pass especially during the rainy season. This became a shared issue felt by all residents because, beyond restricting mobility, road damage also affected the distribution of agricultural products and access to public facilities. This issue created interdependent interests among the village government, the community, and the private sector, although each actor's specific goals differed. The village government aimed to ensure the project complied with regulations and procedures; residents wanted environmental and social impacts minimized; and the private sector focused on completing the project according to technical standards and the established schedule.

Each actor's resource capacity also differed. The village government, represented by the Village Head and Secretary, had authority for coordination and permitting, yet was limited in technical capacity and the number of supervisory personnel. The community possessed local knowledge and environmental concern, but had limited skills in understanding technical AMDAL documents. Meanwhile, the private sector held technical expertise and capital to build the road, but its involvement in deliberation forums and participatory AMDAL preparation remained limited.

The history of interaction among actors also influenced the starting conditions. Village residents and the government had experience with several previous development projects, creating a basic level of trust that enabled dialogue and deliberation to proceed. However, the community's limited experience in decision-making involving technical documents required the village government to adopt a facilitative role to ensure participation remained effective.

In addition, environmental risks associated with road construction such as soil erosion, waterlogging, and impacts on agricultural land heightened the urgency for collaboration.

Awareness of these risks encouraged all parties to interact, deliberate, and seek solutions together, ensuring that the road project not only followed the physical plan but also accounted for environmental and social sustainability.

With these initial conditions, it is evident that Margamulya Village's starting conditions were supportive of collaborative governance. A clear shared problem, interrelated interests, complementary resource capacities, prior interaction experience, and awareness of environmental risks provided a foundation that enabled a collaborative process in the AMDAL implementation for village road construction to function effectively.

Facilitative Leadership

In Ansell & Gash (2008), *facilitative leadership* refers to leaders' capacity to encourage participation from all actors, mediate conflicts, maintain open communication, and create a conducive collaborative environment. In the Margamulya village road project, this leadership became a key determinant of whether the AMDAL process could be implemented effectively and accepted by all parties.

In the field, the Village Head and Secretary played facilitative leadership roles by maintaining a balance between the interests of government, community, and private actors. The Village Head not only managed administrative and permitting matters, but also ensured that residents from RW 04, RW 11, and RW 19 had space to voice aspirations regarding road alignment, environmental risks, and socio-ecological impact mitigation. In village deliberation forums and neighborhood meetings, the Village Head acted as a mediator when differences emerged among residents for example, concerning road routes crossing productive agricultural land or areas vulnerable to erosion.

The Village Secretary played a strategic role in supporting the Village Head's facilitative leadership. The Secretary provided technical information related to the AMDAL document, explained permitting procedures, and supported coordination between the community and project implementers. In this way, the Secretary served as a liaison who ensured communication remained smooth and that each party understood their roles and responsibilities.

This facilitative leadership enabled residents to participate actively despite limited technical understanding of AMDAL documentation. Residents felt heard and perceived that their inputs were considered in decision-making, thereby increasing the project's social legitimacy. Moreover, facilitative leadership helped build trust between residents and the village government—an important asset for resolving potential conflicts and ensuring environmental mitigation measures were properly implemented.

In practice, facilitative leadership in Margamulya was demonstrated through several concrete actions. The Village Head and Secretary routinely held coordination meetings with residents and project implementers, listened to feedback on drainage channels to anticipate waterlogging, discussed safer road routes that avoided productive land, and emphasized environmental maintenance around the project area. This leadership style prioritized openness, clear communication, and active mediation, allowing all parties to work together harmoniously and ensuring that the village road development could be achieved without significant negative impacts.

Thus, facilitative leadership formed a crucial foundation for collaborative governance in Margamulya Village. Without leadership that can facilitate interaction, manage competing interests, and encourage participation, AMDAL implementation for village road construction risks becoming technocratic, non-participatory, and insufficiently responsive to community and environmental needs.

Institutional Design

Institutional design is one of the key components in Ansell & Gash's (2008)

collaborative governance framework. It includes formal rules, procedures, organizational structures, and coordination mechanisms that regulate interaction among actors in joint decision-making. In the context of village road construction in Margamulya Village, institutional design serves as an important instrument to ensure the AMDAL process is orderly, transparent, and participatory.

In Margamulya, institutional design was manifested through several formal mechanisms. Village deliberation meetings and RW meetings functioned as official forums that enabled the village government, residents from RW 04, RW 11, and RW 19, and the private sector to discuss road development plans and environmental impact mitigation. These forums ensured that each actor had the opportunity to express aspirations, critiques, and suggestions regarding road alignment, impacts on agricultural land, erosion risks, environmental management plans, and related concerns.

In addition, roles and responsibilities among actors were clearly defined. The village government, through the Village Head and Secretary, was responsible for coordination, administrative oversight, and facilitating community participation. Residents contributed by providing input based on local experience, overseeing mitigation measures, and monitoring social impacts. The private sector was responsible for preparing the AMDAL document, carrying out construction, and implementing environmental management measures in accordance with technical standards. With clear role distribution, role conflicts could be minimized and each party understood the boundaries of its responsibilities.

Institutional design was also shaped by compliance with formal regulations. Village road construction followed Law No. 32 of 2009 on Environmental Protection and Management, Government Regulation No. 27 of 2012 related to AMDAL procedures, and village-level rules on development and environmental management. These formal mechanisms ensured that each stage ranging from AMDAL preparation and participatory deliberation to mitigation implementation proceeded according to legal and technical standards.

Moreover, institutional design provided mechanisms for conflict management and participatory decision-making. For example, when disagreements arose about road routes crossing productive land, the final decision was reached through deliberation and consensus, considering technical data, residents' input, and environmental mitigation aspects. This procedure emphasized equality, transparency, and social legitimacy, resulting in decisions that were broadly accepted.

Overall, institutional design in Margamulya Village enabled a systematic collaborative structure. Village deliberation forums, clearly defined roles, regulatory compliance, and participatory decision-making mechanisms formed an essential foundation for effective collaborative governance. With a strong institutional design, AMDAL implementation for village road construction not only follows formal rules, but also creates a process that is participatory, accountable, and responsive to environmental and community needs.

Collaborative Process

The collaborative process is the core of collaborative governance because it emphasizes real interaction among actors in achieving shared goals. According to Ansell & Gash (2008), the success of this process depends heavily on open communication, equal participation, joint decision-making, and the implementation of collaborative outcomes. In the village road construction in Margamulya, this collaborative process was visible across multiple stages of AMDAL preparation and physical project implementation.

In Margamulya, the collaborative process began with village deliberation forums and RW meetings involving the Village Head, Village Secretary, residents of RW 04, RW 11, RW 19, and the private sector project implementer. These meetings served as arenas to discuss road construction plans, potential impacts on agricultural land, erosion risks, waterlogging,

and environmental protection. All actors had opportunities to express aspirations and suggestions, ensuring that decisions were not solely driven by government authority or private technical preferences, but were participatory decisions that accounted for social, economic, and ecological considerations.

In practice, the collaborative process also involved technical coordination between the community and the project implementer. Residents contributed local knowledge about soil conditions, safe road routes that avoided productive land, and points prone to flooding or landslides. The private sector adjusted technical design and mitigation plans based on such inputs, while the village government ensured the process complied with AMDAL regulations and was officially documented.

This collaborative process did not occur only once, but was iterative throughout the project. Discussions and meetings were conducted periodically, especially when road routes were revised, mitigation plans were adjusted, or technical problems emerged on site. This approach enabled continuous community feedback, strengthened accountability, and reinforced trust among actors.

Furthermore, the collaborative process helped resolve potential conflicts peacefully. For example, differing views among RW groups regarding road routes were addressed through joint discussion with mediation by the village government. Final decisions consistently sought balance among community interests, technical requirements, and environmental protection. As a result, the road project not only progressed smoothly but also gained social and ecological acceptance.

Overall, this collaborative process demonstrates that AMDAL implementation for village road construction is not purely technocratic, but rather an interactive and participatory process involving all relevant actors. Through open communication, participatory decision-making, and mitigation implementation informed by multi-actor inputs, village road development in Margamulya can proceed effectively, safely, and sustainably.

Barriers in Collaborative Governance in the Environmental Impact Assessment (AMDAL) of Village Road Development

The implementation of collaborative governance in the AMDAL process for village road construction in Margamulya Village faces various barriers that affect the effectiveness of inter-actor collaboration. These barriers arise from differences in capacity, limited resources, communication problems, and regulatory challenges.

One of the main barriers is the disparity in capacity and understanding among actors. Although the community participates actively in deliberative meetings, there remains limited technical knowledge regarding AMDAL documents and environmental mitigation procedures. This condition makes it difficult for some residents to grasp complex environmental impacts or to provide technically specific input. On the other hand, private-sector actors who possess stronger technical capabilities often concentrate on completing construction according to specifications, so engagement with residents has not been fully optimal. As a result, a capacity gap emerges that needs to be bridged through facilitation and mentoring by the village government.

The next barrier relates to unequal interests and priorities. The village government is responsible for ensuring development complies with regulations, while residents emphasize social and environmental impacts, and private actors prioritize project efficiency. All three objectives are legitimate, yet these differing priorities can trigger conflict or delays in decision-making particularly when the road alignment crosses productive land or erosion-prone areas.

In addition, limited resources and budgets also constitute a barrier. The village government faces constraints in supervisory personnel and funding to implement ideal

environmental mitigation measures. Meanwhile, community participation requires time and effort, which can be constrained by residents' daily economic activities; consequently, participation is not always consistent.

Another barrier stems from limited communication and information transparency. Although village deliberations and neighborhood (RW) meetings serve as formal forums, some residents still feel that information about AMDAL and technical aspects of construction is not sufficiently understood. This lack of understanding can generate distrust or concern that the development will damage the environment or their agricultural land.

Solutions and Strategies to Strengthen Collaborative Governance in the AMDAL Process for Village Road Development in Margamulya Village, Pasirjambu District, Bandung Regency

To address these barriers in implementing collaborative governance for the AMDAL process of village road construction in Margamulya Village, a set of strategies is needed to strengthen participation, coordination, and the overall effectiveness of the collaborative process. These strategies should emphasize active community involvement, the facilitative role of the village government, and the responsible integration of the private sector.

- First, improving community capacity and strengthening understanding of the EIA/AMDAL documents is a key step. Residents from RW 04, RW 11, and RW 19 need training or accessible outreach on the purpose of AMDAL, potential environmental impacts, and the mitigation mechanisms to be applied. With better understanding, citizens can provide more technical, relevant, and constructive input during deliberation processes.
- Second, strengthening facilitative leadership from the Village Head (*Kades*) and Village Secretary (*Sekdes*) is essential to manage differences in interests among actors. The village government should facilitate deliberative forums that are fair, transparent, and held regularly, while ensuring residents' voices are not overlooked. In this context, facilitative leadership is not merely about chairing meetings, but also about mediating when conflicts arise for example, disputes over road alignments that pass through productive land or erosion-prone areas.
- Third, refining institutional design can help clarify the roles and responsibilities of each actor. The structure of village deliberation forums, neighborhood (RW) meetings, and coordination with project implementers should be arranged so that participatory decision-making can proceed smoothly. Meeting schedules, documentation of deliberation outcomes, and mechanisms for monitoring the implementation of environmental-impact mitigation are all institutional design elements that can enhance collaborative effectiveness.
- Fourth, improving communication and information transparency is an equally important strategy. Every decision related to road construction, AMDAL documentation, and mitigation plans should be communicated openly to all parties. For instance, the village government can use public notice boards, direct outreach sessions, or routine meetings to explain project progress and the rationale behind technical decisions. This approach can increase public trust and reduce concerns about environmental impacts.

In addition to the strategies above, several concrete solutions can be implemented, including:

- Involving environmental consultants or external facilitators to support deliberation processes and translate technical information into accessible language.
- Conducting routine monitoring and evaluation of mitigation implementation, actively involving both residents and the village government.
- Applying incentive mechanisms for citizen participation, such as awards or recognition for residents who contribute actively to AMDAL forums.

- Maintaining continuous coordination among the village government, private actors, and residents so that any technical changes or issues can be discussed and resolved promptly.
- By applying these strategies, barriers in collaborative governance can be minimized. Community participation will increase, conflicts of interest will be easier to manage, and the implementation of AMDAL for village road development can become more effective, accountable, and sustainable. This approach not only ensures regulatory compliance, but also strengthens social legitimacy and improves environmental quality in Margamulya Village.

E. CONCLUSION

This study shows that the construction of a village road in Margamulya Village, Pasirjambu Subdistrict, Bandung Regency is an infrastructure development activity that affects not only the community's physical conditions and economy, but also has significant implications for environmental conditions. Therefore, the application of Environmental Impact Assessment (EIA/AMDAL) becomes an important instrument to ensure that the development proceeds sustainably and does not generate prolonged negative impacts. In this context, AMDAL should not be viewed merely as an administrative obligation, but rather as a process that requires the involvement of multiple actors through a collaborative governance approach so that environmental, social, and development interests can be integrated in a balanced manner.

Based on field observations, the condition of the village road prior to construction was inadequate, characterized by an uneven surface, limited road width, and high vulnerability to damage, especially during the rainy season. These conditions hindered community mobility, constrained economic activity, and potentially caused environmental impacts such as waterlogging and soil erosion around the road body. After construction, the physical quality of the road improved significantly and provided direct benefits to the community, particularly by enhancing accessibility and facilitating the distribution of agricultural products. Nevertheless, road construction also introduced potential new environmental impacts, especially related to changes in water flow patterns and the need for sustainable drainage management, thereby underscoring the importance of AMDAL-based environmental planning and supervision.

In implementing AMDAL for the village road development, the village government plays a central role as the primary actor facilitating coordination and collaboration among stakeholders. The village government exercises facilitative leadership by opening spaces for dialogue through village deliberations and neighborhood (RW-level) meetings to collect community aspirations and communicate development plans. This role is particularly crucial because the village government occupies a strategic position that bridges community interests, private-sector involvement, and environmental regulatory requirements. Through this role, the village government seeks to ensure that the development process is not solely oriented toward physical acceleration, but also takes into account local environmental and social dynamics.

The community, as the party directly affected by the village road development, also participates in the AMDAL process, mainly by conveying aspirations and complaints and by monitoring project implementation. Community participation reflects an awareness of the importance of road development for everyday life. However, this participation still faces limitations, particularly in technical understanding of AMDAL documents and environmental impact management mechanisms. As a result, the community's role in decision-making remains largely consultative and has not yet become fully equal to that of other actors. This condition indicates the need to strengthen community capacity so that participation is not

merely formal, but also substantive.

Meanwhile, the private sector plays a role in preparing the AMDAL document and undertaking the technical implementation of the village road construction. The private sector possesses adequate technical capacity and resources to support implementation. However, private-sector involvement in direct dialogue with the community remains relatively limited, meaning that transparency and inter-actor communication have not yet operated optimally. This affects the extent to which trust and equality of roles are fully developed within a collaborative governance framework. Therefore, more open collaboration mechanisms are needed so that the private sector functions not only as a technical implementer, but also as a partner accountable for the social and environmental impacts of development.

Overall, this study concludes that the application of collaborative governance in the AMDAL process for village road construction in Margamulya Village has been underway, but has not yet been fully optimal. The main obstacles include limited community capacity, the dominance of the village government's role, insufficient private-sector engagement in dialogue processes, as well as limited resources and technical understanding related to AMDAL. Accordingly, strengthening the village government's facilitative leadership, improving community capacity through environmental outreach and mentoring, and increasing transparency and private-sector participation are important steps to reinforce inter-actor collaboration.

Thus, the study emphasizes that the success of AMDAL in village infrastructure development depends heavily on the quality of collaboration among the actors involved. A collaborative governance approach that is implemented consistently and inclusively is expected to produce village road development that is not only physically effective, but also environmentally and socially sustainable, and responsive to the needs and local conditions of rural communities.

REFERENCES

Ansell, C., & Gash, A. (2008). Collaborative governance in theory and practice. *Journal of Public Administration Research and Theory*, 18(4), 543–571.

Arai, Y., Maswadi, Oktoriana, S., Suharyani, A., Didik, & Inoue, M. (2021). How can we mitigate power imbalances in collaborative environmental governance? Examining the role of the village facilitation team approach observed in West Kalimantan, Indonesia. *Sustainability, 13*(7), 3972. doi:10.3390/su13073972.

Avoyan, E., Kaufmann, M., Lagendijk, A., & Meijerink, S. (2024). Output performance of collaborative governance: Examining collaborative conditions for achieving output performance of the Dutch Flood Protection Program. *Public Performance & Management Review, 47*(2), 291–322. doi:10.1080/15309576.2023.2301409.

Azhara, M. A., & Mardhatillah, S. R. (2023). Partisipasi publik dalam penyusunan dokumen analisis dampak lingkungan pasca berlakunya Undang-Undang/Perppu Cipta Kerja. *Jurnal Hukum IUS QUIA IUSTUM, 30*(2), 256–276. doi:10.20885/iustum.vol30.iss2.art2.

Emerson, K., Nabatchi, T., & Balogh, S. (2012). An integrative framework for collaborative governance. *Journal of Public Administration Research and Theory*, 22(1), 1–29.

Enríquez-de-Salamanca, Á. (2021). Simplified environmental impact assessment processes: Review and implementation proposals. *Environmental Impact Assessment Review, 90*, 106640. doi:10.1016/j.eiar.2021.106640.

Dwiyanto, A. (2010). *Manajemen pelayanan publik: Peduli, inklusif, dan kolaboratif*. Yogyakarta: Gadjah Mada University Press.

Hadi, S. P., Hamdani, R. S., & Roziqin, A. (2023). A sustainability review on the Indonesian

job creation law. *Heliyon, 9*(2), e13431. doi:10.1016/j.heliyon.2023.e13431.

Lee, J.-h., Shin, K.-h., Park, J.-m., Kim, C.-g., & Cho, K. (2022). Communication problems and alternatives in the process of collecting resident opinions for environmental impact assessment through text mining: A case study of the Dangjin landfill in Korea. *Environmental Impact Assessment Review, 95*, 106781. doi:10.1016/j.eiar.2022.106781.

Miles, M. B., & Huberman, A. M. (2014). *Qualitative data analysis: A methods sourcebook (3rd ed.)*. Thousand Oaks, CA: Sage Publications.

Moleong, L. J. (2017). *Metodologi penelitian kualitatif*. Bandung: PT Remaja Rosdakarya.

Morrison-Saunders, A., Arts, J., Bond, A., Pope, J., & Retief, F. (2021). Reflecting on, and revising, international best practice principles for EIA follow-up. *Environmental Impact Assessment Review, 89*, 106596. doi:10.1016/j.eiar.2021.106596.

Neto, P. B., & Mallett, A. (2023). Public participation in environmental impact assessment processes through various channels—Can you listen to us now? Lessons from a Brazilian mining case. *The Extractive Industries and Society, 13*, 101186. doi:10.1016/j.exis.2022.101186.

Peraturan Pemerintah Republik Indonesia Nomor 22 Tahun 2021 tentang *Penyelenggaraan Perlindungan dan Pengelolaan Lingkungan Hidup.*

Peraturan Menteri Lingkungan Hidup dan Kehutanan Republik Indonesia Nomor 4 Tahun 2021 tentang *Daftar Usaha dan/atau Kegiatan yang Wajib Memiliki AMDAL, UKL-UPL, atau SPPL.*

Pemerintah Desa Margamulya. (2024). *Dokumen perencanaan pembangunan jalan desa*. Desa Margamulya, Kecamatan Pasirjambu, Kabupaten Bandung

Sugiyono. (2019). *Metode penelitian kualitatif, kuantitatif, dan R&D*. Bandung: Alfabeta.

Undang-Undang Republik Indonesia Nomor 6 Tahun 2014 tentang *Desa*.

Undang-Undang Republik Indonesia Nomor 32 Tahun 2009 tentang *Perlindungan dan Pengelolaan Lingkungan Hidup*.

Wibawa, S. (2011). *Administrasi negara: Isu-isu kontemporer*. Yogyakarta: Graha Ilmu.