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Implementing Infrastructure Policy in Remote Papua: Intergovernmental Coordination and Local Participation in the Bian–Tamulik Bridge Development

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Abstract

Infrastructure development in remote areas faces challenges related not only to geographical conditions and limited accessibility, but also to intergovernmental coordination and the involvement of local actors. This study aims to analyze the implementation of the Bian-Tamulik Bridge construction policy in Kaptel District, Merauke Regency, and examine the coordination between the central and regional governments, the involvement of local actors, and the supporting and inhibiting factors of its implementation. The study used a qualitative approach with a case study design. Data were obtained through interviews, observations, and documentation studies of central government actors, regional governments, district governments, and the community. The primary analysis used George C. Edward III's policy implementation model, which encompasses communication, resources, disposition, and bureaucratic structure, with intergovernmental relations and collaborative governance perspectives as supporting analysis. The results show that development implementation has generally proceeded well, supported by the availability of resources, implementer commitment, a relatively clear division of authority, and community acceptance. However, implementation has not been fully optimal because operational coordination with the district government is still limited and tends to be reactive. Supporting factors include government support, inter-institutional coordination, acceptance of indigenous communities, and financing readiness, while obstacles include geographical and weather conditions, logistical challenges, customary rights issues, sectoral egos, and the lack of integration of supporting roads. The availability of bridges is also perceived to increase ease of mobility, distribution of goods, and access to public services.

Keywords: Policy Implementation; Infrastructure; Intergovernmental Coordination; Collaborative Governance; Bian–Tamulik Bridge.

1. Introduction

Infrastructure development is a crucial instrument for strengthening regional connectivity, increasing public access to public services, and supporting social and economic activities, particularly in areas with limited accessibility. However, the success of infrastructure development is determined not only by budget availability and the construction of physical facilities, but also by the government's ability to translate policies into effective implementation tailored to regional conditions. Infrastructure provision at the local level in Indonesia, for example, is influenced by institutional aspects, regulations, oversight mechanisms, and local characteristics (Maryati et al., 2021). These challenges are further complicated in remote areas due to geographic conditions, limited access, and the need to integrate the interests of various actors in the development process. In this context, infrastructure development needs to be understood not merely as a construction process, but as a policy implementation process involving institutional, administrative, and social dimensions.

From a policy implementation perspective, Edward III (1980) explains that the success of policy implementation is influenced by four main factors: communication, resources, disposition, and bureaucratic structure. Communication relates to the extent to which policy objectives and directions are understood by implementers; resources include human capacity, budget, information, facilities, and the necessary authority; disposition relates to the commitment and attitude of implementers; while bureaucratic structure determines the division of tasks and procedures in policy implementation. This framework is relevant for analyzing infrastructure development because policy implementation involves various institutions with different authorities and responsibilities. Mazmanian and Sabatier (1983) also emphasize that implementation is influenced by policy characteristics, environmental conditions, and the capacity of implementing institutions. Thus, the success of infrastructure implementation is not only assessed by the availability of resources and formal structures, but also by the ability of various actors to translate policies into coordinated actions at the implementation level.

Coordination issues become increasingly important when policy implementation involves more than one level of government. From an intergovernmental relations perspective, the relationship between the central and regional governments encompasses interactions in the distribution of authority, resources, information, and responsibility for policy implementation (Wright, 1988). A multi-level governance perspective demonstrates that public policy is implemented through interactions between different levels of government, as well as horizontal relationships between actors with differing interests and capacities (Marks & Hooghe, 2004). In a multi-level government system, formal division of authority does not always guarantee effective coordination, as policy implementation remains dependent on the ability of actors to align actions, information, and interests at each level of government (Kleider & Toubeau, 2022). This issue is also evident in infrastructure development in Indonesia, where resource constraints, geographic conditions, and sectoral interests can influence the implementation process at the regional level (Hidayat et al., 2025).

Intergovernmental coordination needs to be viewed in conjunction with the involvement of local actors because policy

implementation takes place in a social environment that directly impacts the community. The collaborative governance perspective emphasizes the importance of dialogue, trust, commitment, and shared understanding in aligning the interests of government and other stakeholders (Ansell & Gash, 2008). Emerson et al. (2012) define collaboration as a process that enables different actors to combine capacities, interests, and resources to achieve common goals. However, formal engagement does not always result in substantive participation. Research by Haryanto et al. (2025) shows that participation spaces at the village level can provide opportunities for communities to express their aspirations, but do not always result in strong accountability. While Harsanto and Wahyuningrat (2024) show that intergovernmental collaboration at the local level can face institutional barriers and strategic misalignments. These findings suggest that effective implementation needs to consider not only the existence of coordination and participation mechanisms, but also how these relationships operate at the operational level.

This issue is particularly relevant to infrastructure development in Papua, which faces geographic challenges and high connectivity needs. Infrastructure development is a crucial component in supporting mobility and regional development in Papua (Hewada et al., 2019), in line with the framework of Presidential Regulation of the Republic of Indonesia Number 24 of 2023 concerning the Master Plan for the Acceleration of Papuan Development 2022–2041. In this context, the construction of the Bian–Tamulik Bridge in Kaptel District, Merauke Regency, South Papua, is aimed at improving accessibility and mobility for communities previously facing transportation limitations. The study shows that the bridge construction has brought positive changes to community mobility, but its implementation still faces coordination issues at the local level. Although coordination between the central and regional governments has generally been well established, the Kaptel District Government's involvement in operational coordination is still suboptimal and tends to be passive or reactive when problems arise.

This situation indicates a gap between formal intergovernmental coordination and the involvement of local actors in infrastructure policy implementation. Previous research has extensively discussed policy implementation (Edward III, 1980; Mazmanian & Sabatier, 1983), intergovernmental relations (Wright, 1988; Kleider & Toubeau, 2022), and collaborative governance and community participation (Ansell & Gash, 2008; Emerson et al., 2012). However, there is limited research linking these three aspects to infrastructure policy implementation in remote Papua. This study aims to analyze the implementation of the Bian–Tamulik Bridge construction policy through the dimensions of communication, resources, disposition, and bureaucratic structure, as well as the role of intergovernmental coordination and the involvement of local actors in the implementation process. This research shows that the availability of resources and formal structures does not automatically guarantee optimal implementation when operational coordination and the involvement of local actors are not effectively integrated.

2. Literature Review

2.1 Policy Implementation

Policy implementation is the stage when policy decisions are translated into concrete actions by implementing actors and organizations. The success of implementation is determined not

only by the substance of the policy, but also by the organizational conditions and the implementer's capacity to carry out the policy. Edward III (1980) identified four main variables in policy implementation: communication, resources, disposition, and bureaucratic structure. Communication relates to the clarity and consistency of policy information; resources include people, budget, information, facilities, and authority; disposition reflects the implementer's attitude and commitment; and bureaucratic structure relates to the division of tasks and implementation procedures.

The Edward III framework provides an analytical basis for examining how policies are translated into practice and why implementation can produce different outcomes in different contexts. This perspective is reinforced by Mazmanian and Sabatier (1983), who identified policy characteristics, the capacity of implementing institutions, and environmental conditions as critical factors in successful implementation. In the context of infrastructure development, this approach is relevant because the implementation process requires institutional capacity capable of managing resources and adapting implementation to local conditions. Maryati et al. (2021) show that infrastructure provision in Indonesia is also influenced by institutions, regulations, oversight mechanisms, and local characteristics.

2.2 Intergovernmental Relations and Multi-Level Governance

Infrastructure policies generally involve multiple levels of government, making intergovernmental relations a crucial part of their implementation. Wright (1988) defines intergovernmental relations as the relationship between different levels of government, encompassing interactions regarding authority, resources, information, and responsibility. This perspective is crucial in a government system that divides development functions between the central and regional governments. The concept of multi-level governance further expands this understanding by recognizing that public policy proceeds through interactions between different levels of government and horizontal relationships between actors (Marks & Hooghe, 2004). Kleider and Toubeau (2022) demonstrate that the distribution of authority within a multi-level system can influence how policies are translated at the regional and local levels.

The existence of a formal division of authority does not always equate to effective coordination. Effective implementation also depends on the ability of various levels of government to align objectives, information, resources, and actions. In the context of Indonesian infrastructure development, these issues can be further complicated by differences in institutional capacity, geographic conditions, sectoral interests, and resource constraints (Hidayat et al., 2025). Therefore, intergovernmental relations are a crucial aspect in understanding the infrastructure policy implementation process.

2.3 Collaborative Governance and Local Participation

Infrastructure policy implementation also involves local actors and communities in the environment where development takes place. Collaborative governance emphasizes the importance of government and stakeholder engagement in a shared process to achieve public goals through dialogue, trust, commitment, and shared understanding (Ansell & Gash, 2008). Emerson et al. (2012)

add that collaboration requires the capacity to connect the interests, actions, and resources of various actors. Meanwhile, Agranoff and McGuire (2003) emphasize the importance of government's ability to manage cross-organizational relationships when facing complex public issues.

In practice, the existence of participation mechanisms does not always indicate substantive community involvement. Kasapa and Gyan (2023) show that community participation in local infrastructure planning can be facilitated through institutional mechanisms, but community influence on decision-making processes can remain limited. In the Indonesian context, Haryanto et al. (2025) also show that spaces for deliberation and participation at the village level do not always result in strong accountability. Harsanto and Wahyuningrat (2024) further demonstrate that collaboration at the local government level can face institutional barriers and strategic misalignments. These findings suggest that policy implementation analysis needs to consider the quality of coordination and participation, not just the existence of formal structures.

2.4 Infrastructure Development in Remote and Local Contexts

Infrastructure policy implementation has distinct characteristics when taking place in areas with limited accessibility and complex geographic conditions. In the Indonesian context, infrastructure development in rural areas is related to the need to strengthen access and support community economic activities (Arifin & Sukmana, 2024). Research by Hewada et al. (2019) demonstrates the importance of road infrastructure development for connectivity and regional economic development in Papua. At the regional policy level, Hidayat et al. (2025) show that infrastructure development is also influenced by geographic conditions and political-economic interests.

Meanwhile, research by Fikar et al. (2024) shows that bridge construction can be analyzed as the implementation of policies related to the social and economic conditions of the community, while Saragih et al. (2024) highlights the relationship between bridge infrastructure and economic activity in rural areas. From a social perspective, Dakyaga et al. (2023) shows that infrastructure management in rural areas is also influenced by power relations, local interests, and collaboration processes. This literature suggests that infrastructure development in remote areas needs to be analyzed by considering the relationship between implementation capacity, geographic conditions, intergovernmental coordination, and the involvement of local actors.

2.5 Analytical Framework

This study uses George C. Edward III's (1980) policy implementation model as the primary analytical framework, encompassing communication, resources, disposition, and bureaucratic structure. To deepen the analysis, this study employs an intergovernmental relations perspective to understand coordination between the central and regional governments (Wright, 1988) and a collaborative governance perspective to understand the involvement of local actors and communities in the implementation process (Ansell & Gash, 2008; Emerson et al., 2012). These three perspectives are used in a complementary manner to analyze the implementation of the Bian–Tamulik Bridge construction policy.

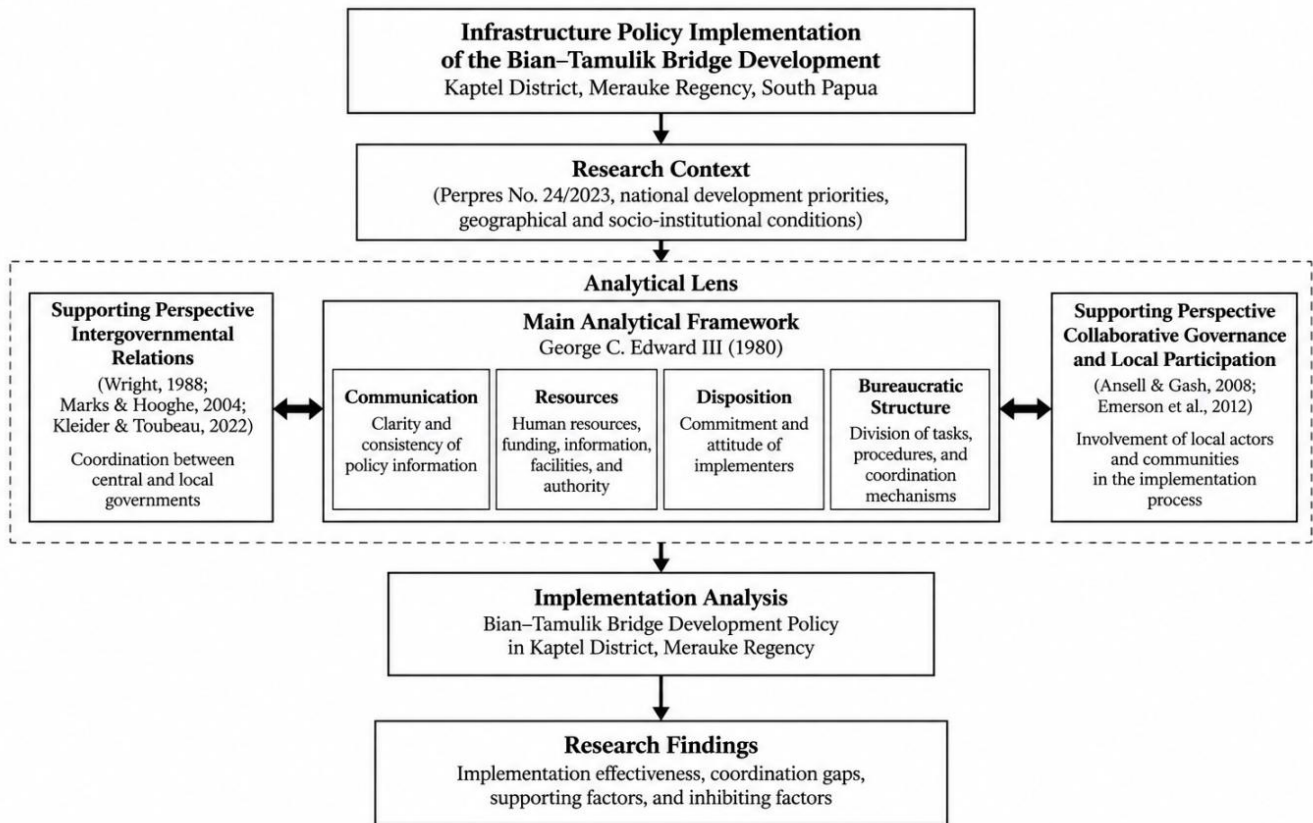


Figure 1. Analytical Framework of the Research

Source: Author's elaboration based on Edward III (1980), Wright (1988), Marks and Hooghe (2004), Kleider and Toubeau (2022), Ansell and Gash (2008), and Emerson et al. (2012).

This analytical framework serves as the basis for identifying and interpreting the implementation process of the Bian–Tamulik Bridge development policy, particularly regarding the effectiveness of implementation, intergovernmental coordination, and the involvement of local actors.

3. Methods

3.1 Research Design

This research uses a qualitative approach with a case study design to analyze the implementation of the Bian–Tamulik Bridge construction policy in Kaptel District, Merauke Regency, South Papua. The qualitative approach was chosen to understand the implementation process, relationships between actors, and the social and institutional conditions that accompany policy implementation. The case study design was used because the research focuses on a single case within a specific geographic and institutional context and utilizes multiple sources of evidence (Creswell & Poth, 2018; Yin, 2018). The primary analysis uses the Edward III policy implementation model, which encompasses communication, resources, disposition, and bureaucratic structure, with intergovernmental relations and collaborative governance perspectives as analytical reinforcement.

3.2 Research Location and Focus

The research was conducted in Kaptel District, Merauke Regency, South Papua, focusing on the construction of the Bian–Tamulik Bridge. The research location also included agencies directly involved in the implementation, namely the South Papua National

Development Planning Agency (BPJN) and the Merauke Regency Public Works and Housing Agency (PUPR). The location was selected based on challenging geographic characteristics, limited transportation access, and the importance of bridge construction for regional connectivity. The research focuses on policy implementation based on the four dimensions of Edward III, coordination between central and regional governments, involvement of local actors and communities, and supporting and inhibiting factors for implementation.

3.3 Data Sources and Informants

The research data consists of primary and secondary data. Primary data was obtained through interviews and observations, while secondary data was obtained from planning documents, project documents, regulations, reports, and relevant publications. Informants were selected purposively based on their position, experience, knowledge, and direct involvement in bridge construction. Informants included representatives from the central government, local governments, district governments, and beneficiary communities.

Table 1. Research Informants and Interview Codes

No.	Category	Position/Role	Code
1	Central government	Head of BPJN South Papua	CG1
2	Local government	Head of the PUPR Service of Merauke Regency	LG1
3	District government	Head of Kaptel District	DG1
4	Public	Beneficiary citizens	C1–Cn

Source: Author's processing based on field data.

Informant codes are used consistently in the presentation of interview excerpts to indicate the source of information without revealing the informant's personal identity. The available data explicitly identify the four informant groups but do not include the exact number of residents interviewed.

3.4 Data collection technique

Data collection was conducted through semi-structured interviews, observations, and document analysis. Interviews were used to gather information on policy implementation, inter-agency coordination, supporting and inhibiting factors, and community experiences with changes in accessibility and services. Observations were made of the physical condition of the bridge, the surrounding environment, the mobility of people and goods, and interactions between actors. Document analysis included planning documents, regulations, project reports, official letters, and documentation of development activities. The use of multiple sources allowed for cross-checking of the information obtained.

3.5 Data Analysis Techniques

Data were analyzed in stages through data organization, coding, theme identification, interpretation, and conclusion drawing. Data from interviews, observations, and documents were grouped based on research focus, then coded to identify patterns and themes. The primary analysis was conducted based on Edward III's four dimensions: communication, resources, disposition, and bureaucratic structure. Furthermore, findings regarding intergovernmental coordination and local actor involvement were analyzed using intergovernmental relations and collaborative governance perspectives. Comparisons between sources were used to strengthen interpretations and ensure that conclusions were based on consistent empirical evidence.

3.6 Data Validity

Data validity was strengthened through triangulation of sources and techniques by comparing information from the central government, regional governments, district governments, and the community, and matching it with observations and documents. The analysis process was also systematically documented through recording data, codes, themes, and interpretations to maintain traceability of the research process.

4. Results

4.1 Implementation of the Bian–Tamulik Bridge Construction Policy

The research results show that the implementation of the Bian–Tamulik Bridge in Kaptel District has proceeded with the support of the central government, regional government, district government, and the community. Implementation is supported by communication between implementers, resource availability, implementer commitment, and a relatively clear division of authority. However, implementation has not been fully optimized due to limitations in operational coordination, particularly at the district government level. Research data were obtained through interviews, observations, and documentation and analyzed based on the four dimensions of Edward III policy implementation.

4.1.1 Communication

Communication in development implementation is carried out through coordination meetings, reports, field monitoring, data exchange, and information dissemination to the public. At the

central and regional government levels, formal communication has taken place through technical and administrative coordination. Informant CG1 explained:

"Coordination between the central and regional governments in the construction of the Bian–Tamulik Bridge is carried out through formal and technical mechanisms to ensure the project is in line with national policies while taking local conditions into account."(CG1, interview, June 8, 2026).

Although formal communication is ongoing, routine communication at the district level is not yet optimal. Informant DG1 stated:

"However, if we honestly evaluate the daily, periodic, or proactive coordination from the contractual parties, BPJN, and the PUPR Office to us in the District Government, it is actually still very lacking."(DG1, interview, June 8, 2026).

The findings indicate that intergovernmental communication has been ongoing at a formal level, but district government involvement in day-to-day operational communication has not been consistent.

4.1.2 Resource

The available human resources are considered sufficient to support development implementation, particularly for coordination and oversight. The Merauke Regency Government stated that it has technical personnel who understand road and bridge construction and can provide support within their authority. In terms of facilities, infrastructure, and logistics, the region's geographical conditions pose a challenge. Informant CG1 explained:

"The availability of facilities, infrastructure, and construction equipment for the construction of the Bian–Tamulik Bridge is quite challenging because the project location is in a remote area in Merauke Regency."(CG1, interview, June 8, 2026).

In addition to government resources, local communities are also involved in supporting work, such as material guards, cooks, and speedboat drivers, as well as in procuring local materials. Funding-wise, the main construction project is supported by the state budget (APBN). Research data indicates that the initial substructure work package is valued at approximately IDR 164 billion, while the bridge is approximately 500 meters long. This IDR 164 billion represents the initial package and not the total construction cost. Therefore, resources are generally available, although the geographical conditions pose challenges to equipment mobilization and logistics.

4.1.3 Disposition of the Executor

The construction implementers demonstrated acceptance and commitment to the project's implementation. The Merauke Regency Government views bridge construction as strategic infrastructure for regional connectivity. Informant LG1 stated:

"The Merauke Regency Government is strongly committed to supporting the construction of the Bian–Tamulik Bridge because this infrastructure has strategic value in improving regional connectivity and encouraging equitable development."(LG1, interview, June 8, 2026).

This commitment is also evident in the district government. Informant DG1 explained:

"The form of support is always being there when there are problems in the field, helping to find solutions and resolve them in the field."(DG1, interview, June 8, 2026).

Field findings also show that local governments are following up on various obstacles through coordination and facilitation based on their respective authorities.

4.1.4 Bureaucratic Structure

Development implementation is supported by a relatively clear division of authority between the central and regional governments. The central government, through the Ministry of Public Works and Public Housing (PUPR) and the South Papua National Development Planning Agency (BPJN), is responsible for technical planning, procurement, financing, construction implementation, and supervision. The Merauke Regency Government provides support within its authority, including coordination with district governments and facilitation of local issues. Informant LG1 stated:

"In the Bian-Tamulik Bridge construction project, the division of authority is quite clear. The central government, through the Ministry of Public Works and Public Housing (PUPR) and the South Papua National Development Planning Agency (BPJN), is responsible for technical planning, procurement, financing, construction implementation, and work supervision."(LG1, interview, June 8, 2026).

Despite the existing division of authority, effective implementation still faces sectoral egos, limited communication, and suboptimal inter-organizational cooperation. When issues such as customary land rights disputes or blockades arise, a multi-level coordination mechanism can involve village governments, district governments, companies, security forces, regional apparatus, and district governments.

4.2 Intergovernmental Coordination and Involvement of Local Actors

Coordination between the central government and the Merauke Regency Government is based on a complementary division of functions. The central government plays a role in technical and financial aspects, while the regional government provides administrative support and facilitation on social and local issues. Informant CG1 explained:

"The central government plays a role as a policy director and budget provider, while regional governments act as socio-administrative facilitators."(CG1, interview, June 8, 2026).

At the district level, engagement has not been consistent. The Kaptel District Government has the capacity to conduct oversight and social facilitation, but its involvement often increases when issues arise in the field. Meanwhile, community involvement is primarily in development support activities and social processes related to the project. Direct involvement in major construction is limited because such work requires specialized expertise and equipment.

4.3 Supporting and Inhibiting Factors

The research results show that the implementation of the Bian-Tamulik Bridge construction was supported by central government commitment, local government support, financing readiness, project management, interagency coordination, acceptance by indigenous communities, and support from local actors. The Acting Head of the South Papua National Development Planning Agency (BPJN) explained that the successful construction was supported by a combination of central government policies, local government support, project management, community participation, and state budget readiness.

At the local level, community acceptance of development and support from officials are also important factors. Informant DG1 stated:

"What contributed to the success of the bridge construction was the local wisdom of the community in accepting their customary land for the bridge construction, and the solidarity of the District, Police, and Military District Command officials..."(DG1, interview, June 8, 2026).

In addition to these supporting factors, implementation still faces several obstacles. Geographical and weather conditions complicate the mobilization of materials and equipment, while administrative processes, customary rights issues, and inter-organizational coordination also impact smooth implementation. Research has found that sectoral egos, limited communication, and suboptimal inter-organizational cooperation persist. Furthermore, bridge construction has not been fully integrated with improvements to access roads to surrounding areas.

Overall, these supporting and inhibiting factors indicate that the success of development implementation is not only determined by technical and budgetary readiness, but also by the ability of actors to manage geographical conditions, social issues, and inter-institutional coordination in a sustainable manner.

4.4 Changes in Community Accessibility and Mobility

Interview results revealed changes in mobility and distribution of goods experienced by the community. Before the bridge, people faced difficult transportation, requiring water transportation and repeated loading and unloading of goods. Informant C1 explained:

"Access is very difficult, you have to cross the road, and carrying things is also difficult because you have to unload them from the car, put them on a bus or speedboat, and then unload them again..."(C1, interview, June 3, 2026).

After the bridge was available, informant C1 reported:

"Now the process of distributing goods and basic necessities for us is much easier, safer, and faster."(C1, interview, June 3, 2026).

In addition to the distribution of goods, informants reported ease of access to various needs and services. The Head of Kaptel District also stated that the bridge facilitates community activities and the mobility of teachers, health workers, and officials in carrying out their duties. Therefore, based on the informants' experiences, the presence of the Bian-Tamulik Bridge is associated with increased ease of mobility, distribution of goods, and access to public services. To provide a brief overview of the research results, Table

2 presents a synthesis of findings based on aspects of policy implementation, intergovernmental coordination, supporting and inhibiting factors, and changes in public accessibility.

Table 2. Summary of Research Findings

Dimensions	Key Findings
Communication	Formal communication is ongoing, but routine and proactive communication at the district level is not yet optimal.
Resource	Human resources, funding, and supporting resources are available; geographical conditions pose logistical challenges.
Disposition	The implementer shows commitment and support for the implementation of development.
Bureaucratic structure	The division of authority is relatively clear, but coordination between organizations is not always optimal.
Coordination and local actors	Central-regional coordination is relatively well-functioning; district involvement is inconsistent; communities are primarily involved in support activities and social aspects.
Accessibility	Informants reported that mobility and distribution of goods became easier, safer, and faster after the bridge was available.

Source: Author's processing based on the results of interviews, observations, and documentation (2026).

5. Discussion

5.1 Implementation of the Bian–Tamulik Bridge Construction Policy

The research findings indicate that the implementation of the Bian–Tamulik Bridge construction has generally gone well, although not yet fully optimal. Resource availability, implementer commitment, and the division of authority have supported implementation, while weaknesses were primarily seen in communication and operational coordination at the district level. These findings align with Edward III's (1980) framework, which places communication, resources, disposition, and bureaucratic structure as key implementation factors.

In this case, resources and disposition relatively supported implementation, but the adequacy of both aspects did not fully result in optimal implementation due to inconsistent communication between actors. The Kaptel District Government has the capacity to support social supervision and facilitation, but its involvement in routine coordination remains limited. This situation suggests that implementation success is determined not only by internal organizational readiness but also by the ability to connect actors in the implementation process. This finding supports Mubarak et al.'s (2020) study on the importance of implementer capacity and the process of policy translation into practice.

5.2 Intergovernmental Coordination in the Perspective of Intergovernmental Relations and Multi-Level Governance

The construction of the Bian-Tamulik Bridge demonstrates a division of functions between the central and regional governments. The central government, through the Ministry of Public Works and Public Housing (PUPR) and the South Papua National Development Planning Agency (BPJN), handles technical aspects, financing, construction, and supervision, while the regional government provides administrative support, data provision, and facilitation of local issues. From Wright's (1988) perspective, this pattern demonstrates an interdependent intergovernmental relationship. The central government possesses the technical and financial capacity, but implementation at the local level requires support from regional and district governments. The multi-level governance perspective of Marks and Hooghe (2004) and Kleider and Toubeau (2022) helps explain that implementation occurs through the interaction of multiple levels of government, not simply through hierarchical relationships.

However, the clear distribution of functions has not been fully followed by integrated operational coordination. Limited routine coordination with district governments demonstrates a gap between institutional structures and implementation practices. Thus, the primary challenge in intergovernmental relations in this case lies in consistent interactions between levels, not solely in the division of authority.

5.3 Community Engagement and Collaborative Governance

The community plays a crucial role in supporting implementation, particularly through acceptance of development, involvement in supporting activities, utilization of local resources, and social processes related to customary rights. The community also understands the bridge construction as fulfilling aspirations long expressed through the Musrenbang (Regional Development Planning Forum). These findings support the collaborative governance perspective of Ansell and Gash (2008), which emphasizes dialogue, trust, and shared commitment in resolving public issues. Emerson et al. (2012) also place the ability of actors to act together as a crucial element in collaborative governance. In the construction of the Bian-Tamulik Bridge, collaborative patterns were particularly evident in the resolution of customary rights issues and community acceptance of the development.

However, community involvement does not yet encompass all stages of development. Communities are more involved in social aspects and supporting work, while core construction is handled by personnel with technical competence. This suggests that participation in implementation needs to be distinguished from direct involvement in decision-making or technical work. These findings are relevant to Kasapa and Gyan (2023) and Haryanto et al. (2025) regarding the importance of examining the quality and form of participation, not just its presence.

5.4 Resources, Regional Conditions, and Implementation Challenges

The availability of human resources and funding is one of the factors supporting development. The initial substructure work package is valued at approximately IDR 164 billion, with a bridge length of approximately 500 meters. However, the remote geographical conditions of the area pose challenges in mobilizing equipment and logistics. This finding indicates that resource adequacy cannot be separated from the context of the implementation environment. Arifin and Sukmana (2024) emphasize that geographical conditions and limited supporting

infrastructure can impact development implementation in rural areas. In the context of Papua, Hewada et al. (2019) also demonstrate the importance of infrastructure connectivity for regional development.

Another challenge stems from institutional aspects. Sectoral egos, limited communication, and suboptimal interorganizational collaboration persist despite the existence of a shared authority. This demonstrates that successful implementation requires not only adequate resources but also the organizational capacity to manage cross-sectoral relationships. Agranoff and McGuire's (2003) perspective supports the importance of managing cross-organizational relationships and resources in complex government environments.

5.5 Changes in Accessibility and Infrastructure Benefits for the Community

The construction of the Bian–Tamulik Bridge has brought about significant changes in the mobility and distribution of goods. Before the bridge was built, people faced transportation processes that required repeated crossings and loading and unloading. After the bridge was built, informants reported that the distribution of goods became easier, safer, and faster. These findings support the research of Fikar et al. (2024) and Saragih et al. (2024) on the role of bridges in supporting connectivity and community economic activity. Omowumi et al. (2025) also demonstrated that bridge construction can be linked to mobility, livelihood resilience, and social inclusion.

In the context of the Bian–Tamulik Bridge, the perceived benefits extend beyond the distribution of goods, including the ease of mobility for teachers, healthcare workers, and government officials. This demonstrates that physical connectivity is directly linked to the accessibility of public services in areas previously hampered by geographic barriers. However, these findings should be understood as the experiences and perceptions of informants, not as quantitative measures of the magnitude of socio-economic impacts.

6. Conclusion

This study shows that the implementation of the Bian–Tamulik Bridge construction in Kaptel District, Merauke Regency, has generally gone well, but not yet fully optimal. Based on the four dimensions of Edward III, implementation is supported by the availability of resources, the commitment of implementers, and a relatively clear division of authority. The main obstacles lie in operational communication and coordination, particularly the inconsistent involvement of the Kaptel District Government in routine coordination with project implementers.

Coordination between the central and regional governments has been achieved through a complementary division of functions. The central government is responsible for technical aspects, financing, and construction implementation, while regional governments provide administrative support, social facilitation, and resolution of local issues. Acceptance of indigenous communities, support from local governments, and resolution of customary rights issues through coordination and deliberation are important factors supporting implementation. Conversely, geographical and weather conditions, logistical challenges, administrative processes, sectoral egos, and the lack of integration of bridge construction with supporting roads are factors that limit the effectiveness of implementation.

The presence of the Bian–Tamulik Bridge is also perceived by the public as providing ease of mobility, distribution of goods, and access to public services. These findings confirm that the success of infrastructure development in remote areas is determined not only by budget availability and technical capacity, but also by the quality of intergovernmental coordination, the involvement of local actors, and the ability to integrate physical development with social needs and regional connectivity. Future research can expand the study by comparing it with infrastructure projects in other remote or 3T areas and using quantitative data to measure changes in travel time, transportation costs, economic activity, and access to public services following infrastructure development.

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