

Village Government In The Management Of Sicanang Mangrove Forest : A Governmental Studies Perspective On Public Transparency And Accountability

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Abstract

This study examines village-level governance in the management of the Sicanang mangrove forest in Belawan Sicanang Sub-District, Medan Belawan District, Medan City, Indonesia, with a particular focus on the practice of public transparency and accountability. Since 2015, the local community and government have designated 178.24 hectares of the area as a Community-Based Mangrove Protection Zone (Daerah Perlindungan Mangrove Berbasis Masyarakat/DPM-BM). However, recent reports indicate deteriorating physical conditions, damaged public facilities, and reduced institutional oversight since 2020, raising questions about the effectiveness of governance arrangements at the village and sub-district level. This research uses a descriptive qualitative approach, collecting data through observation, in-depth interviews with local government officials and community mangrove management groups, and documentation study, which were then analyzed through data reduction, data display, and conclusion drawing. The findings indicate that transparency practices remain informal and are not institutionalized through a standardized public reporting or information-disclosure system, while accountability mechanisms—both vertical, to the provincial forestry agency, and horizontal, to the surrounding community—are weakly enforced. Overlapping authority among the sub-district (kelurahan) government, city agencies, and the provincial forestry service, combined with limited resources and low community environmental literacy, further constrains effective governance. The study concludes that strengthening formal transparency instruments, clarifying institutional coordination, and building periodic public accountability forums are essential to sustaining community-based mangrove governance in Sicanang.



Keywords: village governance; transparency; public accountability; mangrove forest management; Sicanang

INTRODUCTION

Indonesia possesses one of the largest expanses of mangrove ecosystems in the world, providing essential ecological functions such as coastal abrasion control, carbon sequestration, and habitat provision for marine biota, alongside significant socio-economic value for coastal communities. Following the enactment of Village Law Number 6 of 2014 and its implementing regulation, Government Regulation Number 47 of 2015, village and sub-district governments in Indonesia were granted broader authority and greater fiscal autonomy, including in matters of local environmental and natural resource management (Peraturan Pemerintah Nomor 47 Tahun 2015). This decentralization was expected to bring governance closer to the community, yet it simultaneously placed heavier demands on local government capacity to manage public resources transparently and accountably (Antlöv et al., 2016).

Within the framework of governmental studies (Ilmu Pemerintahan), transparency and accountability are widely regarded as two of the core pillars of good governance. Transparency refers to the openness of government processes and the accessibility of information to the public, while accountability concerns the obligation of government actors to report, explain, and justify their decisions and the use of public resources to relevant stakeholders (Porumbescu, 2017; Said et al., 2015). Numerous studies on Indonesian village governance have shown that the consistent application of these two principles is strongly associated with higher levels of public trust in local government (Sofyani, Pratolo, & Saleh, 2021; Sofyani, Yaya, & Saleh, 2023; Pratolo, Sofyani, & Maulidini, 2022). Comparable findings have also been reported in other transitional and developing-country contexts, where participatory and transparent local governance correlates with stronger citizen trust (Tran & La, 2022).

One area where these governance principles are increasingly tested is community-based natural resource management, including community-based mangrove forest management (CBMM), an approach that decentralizes authority from central or provincial government to local communities while requiring clear, transparent, and accountable management arrangements to succeed (Hanifah & Eddiwan, 2018). In Medan City, North Sumatra, the Sicanang mangrove forest, located in Belawan Sicanang Sub-District, Medan Belawan District, exemplifies this approach. In 2015, the local community, together with the sub-district government, agreed to designate 178.24 hectares of mangrove area as a Community-Based Mangrove Protection Zone (DPM-BM), divided



into a core zone, a buffer zone, and a utilization zone, and subsequently developed as a mangrove ecotourism destination managed with the support of a local foundation (Restu et al., 2024).

Despite this promising institutional design, recent studies report a troubling decline in the condition of the Sicanang mangrove area. Since 2020, ecotourism infrastructure—including bridges, tree houses, and sanitation facilities—has been reported as damaged and unmaintained, while solid waste pollution and illegal cutting of mangrove trees for furniture wood have continued largely unchecked (Harefa et al., 2024). Studies on the performance of the North Sumatra Provincial Forestry Service further indicate that supervisory functions over the Sicanang mangrove area remain limited in scope and enforcement (Hutauruk & Trimurni, 2025). These conditions suggest a governance gap between the normative principles of transparency and accountability mandated by national regulation—such as Minister of Home Affairs Regulation Number 20 of 2018 on Village Financial Management—and the empirical practice of local government in managing a shared natural resource.

Most existing research on the Sicanang mangrove area has approached the subject from the perspective of tourism management, conservation strategy, or environmental science, employing SWOT analysis or general descriptive methods to assess ecotourism potential (Harefa et al., 2024; Restu et al., 2024). Comparatively little attention has been given to the subject from the standpoint of governmental studies, specifically examining how transparency and public accountability function—or fail to function—within the institutional arrangement of village/sub-district government in managing this shared resource. This study addresses that gap by asking: how does village government governance operate in the management of the Sicanang mangrove forest, particularly in terms of transparency and public accountability practices, and what factors constrain the effective implementation of these principles? Accordingly, this research aims to describe and analyze the governance arrangement, transparency practices, accountability mechanisms, and constraining factors present in the management of the Sicanang mangrove forest.

RESEARCH METHOD

This study employed a descriptive qualitative approach, which is appropriate for producing an in-depth, contextual description of a governance phenomenon as it occurs in a specific social and institutional setting, without seeking to test predetermined hypotheses. The research was conducted in the Sicanang mangrove forest area, located in Belawan Sicanang Sub-District (Kelurahan Belawan Sicanang), Medan Belawan District, Medan City, North Sumatra Province.



Data for this study were obtained from both primary and secondary sources. Primary data were collected through in-depth interviews with informants selected purposively, comprising: (1) the sub-district (kelurahan) government apparatus responsible for environmental and community affairs; (2) members of the community-based mangrove management group and the local foundation overseeing the DPM-BM area; and (3) residents of Belawan Sicanang who interact directly with the mangrove area. Field observation was also conducted to document the physical condition of the mangrove area, its supporting infrastructure, and visible information or reporting mechanisms available to the public. Secondary data were obtained through documentation study, including relevant laws and regulations, sub-district and city government reports, and prior academic studies on the Sicanang mangrove area.

Data analysis followed the standard stages of qualitative analysis: data reduction, in which raw field notes and interview transcripts were sorted and simplified according to the research focus on transparency and accountability; data display, in which the reduced data were organized into descriptive categories concerning institutional arrangement, transparency practice, accountability mechanism, and constraining factors; and conclusion drawing and verification, in which patterns across data sources were cross-checked to arrive at coherent findings. To enhance the credibility of the findings, source and technique triangulation were applied by comparing information obtained from different categories of informants with the results of field observation and documentation study.

RESULTS AND DISCUSSION

Institutional Arrangement of Sicanang Mangrove Governance

The management of the Sicanang mangrove forest is structured around the Community-Based Mangrove Protection Zone (DPM-BM), an area of 178.24 hectares agreed upon by the local community and government in 2015, comprising a core zone, a buffer zone, and a utilization zone (Restu et al., 2024). Day-to-day management on the ground is largely delegated to a community-based management group, supported by a local foundation, while the Medan City Tourism and Environmental Agencies provide programmatic support, and the North Sumatra Provincial Forestry Service holds a formal supervisory mandate over the mangrove area (Hutauruk & Trimurni, 2025). This arrangement reflects a multi-level governance structure in which the sub-district government functions as the primary point of coordination between the community and higher levels of government, rather than as the sole manager of the resource.

However, findings from this study indicate that the division of roles and responsibilities



among these actors is not always clearly understood at the operational level. Several informants noted uncertainty regarding which institution is responsible for facility maintenance, waste management, and enforcement against illegal tree cutting, suggesting that authority over the Sicanang mangrove area is functionally overlapping rather than clearly delineated. This ambiguity mirrors broader findings in Indonesian village governance literature, where unclear division of authority between village-level and higher-level government institutions is frequently identified as a structural obstacle to effective local governance (Antlöv et al., 2016).

Transparency Practices

In terms of transparency, this study found that information regarding the management of the Sicanang mangrove area—including budget allocation, program planning, and maintenance schedules—is rarely disseminated through formal or standardized channels. Unlike the relatively well-established practice of publishing village budget summaries (APBDes) mandated for village financial management under Minister of Home Affairs Regulation Number 20 of 2018, no equivalent public information mechanism was found to be consistently applied to the management of the mangrove protection area. Community awareness of ongoing programs is instead built largely through informal channels, such as periodic mangrove-planting activities involving local government officials and volunteers, rather than through accessible written reports, public information boards, or digital disclosure platforms.

This finding is consistent with the broader literature, which shows that transparency in Indonesian local governance tends to be strongest where clear regulatory reporting obligations exist, and considerably weaker in areas of governance—such as communal natural resource management—that fall outside standard village financial reporting frameworks (Sofyani et al., 2021; Porumbescu, 2017). The absence of routine, accessible information about the state of the mangrove area and the use of associated resources limits the community's capacity to monitor government performance and reduces opportunities for constructive public feedback.

Accountability Mechanisms

Accountability in the management of the Sicanang mangrove area operates along two dimensions: vertical accountability from the sub-district and community management group to the provincial forestry agency, and horizontal accountability from the sub-district government to the local community. This study found that vertical accountability, while formally present through the supervisory role of the North Sumatra Provincial Forestry Service, is weakly enforced in practice, consistent with prior findings that supervision of the Sicanang mangrove area by the



relevant forestry agency remains limited (Hutauruk & Trimurni, 2025). Horizontal accountability to the community was found to be even less institutionalized: no regular public forum, community meeting, or reporting mechanism was identified through which the sub-district government or the community management group formally accounts for the condition of the mangrove area or the outcomes of conservation and ecotourism programs.

The consequences of this weak accountability structure are visible in the physical deterioration of the Sicanang mangrove ecotourism area since 2020, including collapsed bridges, damaged visitor facilities, unmanaged solid waste, and continued illegal cutting of mangrove trees for furniture material (Harefa et al., 2024). These outcomes align with the broader theoretical expectation that where accountability mechanisms are weak or largely symbolic, the sustainability of community-based natural resource management is placed at risk (Sofyani, Suryanto, Wibowo, & Widiastuti, 2018; Tambuwun et al., 2018).

Constraining Factors

Several interrelated factors were identified as constraining the implementation of transparent and accountable governance in the Sicanang mangrove area. First, the overlapping and unclear division of authority among the sub-district government, city agencies, and the provincial forestry service diffuses responsibility and complicates coordinated action. Second, both the sub-district government and the community management group face limited human and financial resources, restricting their capacity to establish and maintain formal information-disclosure or reporting systems. Third, the study found relatively low levels of community environmental literacy and understanding of sustainable ecotourism principles, which contributes both to environmentally damaging practices, such as illegal tree cutting, and to limited community demand for transparency and accountability from local government. Fourth, no standardized reporting format or information-disclosure mechanism specific to communal natural resource management—as opposed to general village financial management—currently exists at the sub-district level, leaving transparency and accountability practices dependent on the initiative of individual officials or community leaders rather than institutionalized procedure.

Discussion

Taken together, these findings suggest that the governance gap observed in the Sicanang mangrove area is not primarily a matter of absent regulation or normative commitment—since national and municipal regulatory frameworks for good governance, transparency, and accountability are well established (Peraturan Menteri Dalam Negeri Nomor 20 Tahun 2018)—but



rather a matter of weak institutionalization at the operational level of village and sub-district government. This is consistent with studies showing that Indonesian village governments with clearer internal management practices and more consistent reporting routines tend to generate significantly higher levels of community trust (Sofyani, Yaya, & Saleh, 2023; Pratolo et al., 2022), and with comparative evidence from other transitional contexts that participatory and transparent local governance produces stronger citizen confidence in government (Tran & La, 2022).

The experience of Sicanang further illustrates that community-based natural resource governance requires more than the initial designation of a protected zone or the formation of a community management group; it requires deliberate investment in governance infrastructure—clear institutional roles, routine public reporting, and accessible accountability forums—that mirrors, and ideally exceeds, the standards applied to conventional village financial management. This aligns with the broader premise of community-based mangrove management literature, which holds that sustainable outcomes depend substantially on the quality of local governance rather than ecological potential alone (Hanifah & Eddiwan, 2018; Karlina, 2015; Herlitasari et al., 2021).

CONCLUSION

This study concludes that village government governance in the management of the Sicanang mangrove forest remains constrained by weak institutionalization of transparency and public accountability practices. While a community-based institutional framework—the Community-Based Mangrove Protection Zone (DPM-BM)—has existed since 2015, information about program planning, budget use, and maintenance activities is disseminated largely through informal channels rather than standardized public disclosure mechanisms, and both vertical accountability to the provincial forestry agency and horizontal accountability to the local community remain weakly enforced. These governance shortcomings, compounded by overlapping institutional authority, limited resources, and low community environmental literacy, are reflected in the deteriorating physical condition of the mangrove ecotourism area since 2020.

To strengthen governance in the Sicanang mangrove area, this study recommends: (1) establishing a standardized, periodic public information-disclosure mechanism specific to communal natural resource management, comparable to existing village financial reporting requirements; (2) clarifying the division of authority and coordination procedures among the sub-district government, city agencies, and the provincial forestry service; (3) building the technical



and administrative capacity of the community management group to sustain transparent record-keeping and reporting; and (4) establishing a regular public accountability forum through which the sub-district government and community management group report program outcomes directly to residents. Future research may build on these findings by examining the perspectives of higher-level government agencies in greater depth or by conducting comparative studies across multiple community-based mangrove management sites in Indonesia.

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