



From Fragmentation to Integration? Collaborative Governance Dynamics in Jakarta's Metropolitan Flood Mitigation

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Abstract. *This paper looks into the extent to which the governance of flood mitigation in Jakarta is changing from fragmented coordination towards a more holistic collaborative mode of governance. The study, guided by collaborative governance perspectives, investigates the process of cross-sectoral and multi-level collaboration in the Jakarta metropolitan region (Jabodetabek-Punjur). A post-positivist approach with qualitative method was employed, using face-to-face interviews with 16 informants from government agencies, NGOs and experts, as well as members of affected communities. The findings indicate that although recurring flood events have fostered shared motivation and initiated cross-sectoral engagement, collaboration remains structurally fragmented. This fragmentation is evident in weak intergovernmental trust, sectoral self-interest, inconsistent resource allocation, and misaligned institutional capacities, particularly regarding land acquisition and cross-regional coordination. While intermediate outcomes such as flood control infrastructure, early warning systems, and joint action plans demonstrate progress, these initiatives are not yet supported by a fully integrated governance framework. Jakarta's flood mitigation efforts constitute an evolving yet incomplete transition toward collaborative integration. Enhancing facilitative leadership, institutional alignment, and sustained metropolitan-scale coordination is necessary to address fragmentation and improve the effectiveness of long-term flood governance. This study also contributes to collaborative governance literature by demonstrating that collaborative governance in decentralized metropolitan settings develops unevenly across analytical dimensions, with relational collaboration advancing faster than institutional integration.*

Keywords: collaborative governance, flood mitigation, Jakarta

Introduction

Indonesia is among the countries with the highest disaster risk globally due to its distinctive geographical and geological characteristics. Over the past five years, a total of 17,494 natural disasters have been recorded, with the peak occurring in 2020, reaching 4,886 incidents. Flooding constitutes one of the most dominant disaster types, with 6,913 events documented between 2020 and 2024 (BNPB, 2025). Jakarta, as the nation's economic center and most densely populated city, is particularly vulnerable. This vulnerability is largely attributed to its geomorphological condition as a basin and floodplain, combined with a long recorded history of flooding dating back to 1621 (Harsoyo, 2013; Octavianti & Charles, 2019; Rosyidie, 2013).

The Provincial Government of Jakarta has implemented various flood mitigation policies, including the construction of the West and East Flood Canals, river normalization under

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Governors Joko Widodo and Basuki Tjahaja Purnama (2013), and river naturalization initiated by Governor Anies Baswedan (2017). More recent strategies include the development of infiltration wells and weather modification (Sari, 2025). However, these efforts have not yet achieved optimal outcomes, as flooding remains a persistent issue. This reflects weaknesses in policy implementation, which are associated with factors such as the failure to effectively execute the flood prevention master plan (Wals, 2015), institutional misalignment between central and local governments, and the exclusion of key actors from the policymaking process (Simanjuntak et al., 2012).

These challenges highlight that flood management cannot be addressed solely by local government, but instead requires cross-sectoral and multi-level collaboration from upstream to downstream areas. Former President Joko Widodo emphasized the necessity of coordinated action among multiple stakeholders. This aligns with the perspective that collaborative governance can reduce uncertainty in flood risk management, foster collective learning, and strengthen resilience (Challies et al., 2016; Kusumasari and Alam, 2012). Moreover, such an approach supports the decentralization of decision-making processes and enhances stakeholder participation in disaster management.

Collaborative initiatives in Jakarta have been pursued through mechanisms such as the 2020 joint commitment for flood and landslide management in the Jabodetabek-Punjur region, as well as partnerships involving 21 institutions and community groups in disaster management. These collaborations encompass activities such as mapping affected areas, evacuation, logistics, and monitoring and evaluation. Nevertheless, collaboration remains predominantly focused on response and post-disaster phases, with mitigation efforts yet to become a central priority. Accordingly, this study emphasizes the need to examine collaborative processes in Jakarta's flood mitigation policy by employing the collaborative governance frameworks of Ansell and Gash (2007) and Emerson and Nabatchi (2015) as analytical lenses.

This study uses a qualitative method with a post-positivism paradigm that refers to two collaborative governance theories, namely the collaborative process from Ansell and Gash and the collaborative dynamic from Emerson and Nabatchi. The data collection technique used was in-depth interviews with nine government actors, consisting of three informants from the Regional Development Planning Agency (*Badan Perencanaan Pembangunan Daerah/BAPPEDA*) of Jakarta Provincial Government; one informant from the Ciliwung Cisadane River Basin Agency (*Balai Besar Wilayah Sungai/BBWS*), Ministry of Public Works (*Kementerian Pekerjaan Umum/PU*) of the Republic of Indonesia; one informant from the Directorate General of Regional Development of the Ministry of Home Affairs of the Republic of Indonesia (*Kementerian Dalam Negeri/Kemendagri*); two informants from the Regional Disaster Management Agency (*Badan Penanggulangan Bencana Daerah/BPBD*) of Jakarta Province, the Mayor of Bogor; and one technical officer from the Katulampa Dam. In addition, this study also conducted in-depth interviews with 7 informants from non-governmental actors, consisting of 3 informants from non-governmental organizations (NGOs); 1 urban observer; and 1 informant from academics; and 2 residents from the area affected by flooding. This study used illustrative method and narrative analysis techniques to analyze the interview transcripts, which had been coded previously.

Collaborative Governance and Disaster Management: A Theoretical Review

Disaster is defined as an event—natural or human-made, sudden or gradual—that causes severe disruption requiring extraordinary responses from affected communities (Carter, 2008).

Consequently, disaster management is a dynamic process involving planning, organizing, staffing, leadership, and supervision, and requires coordination among multiple organizations. It encompasses four interconnected phases: mitigation, preparedness, response, and recovery (Waugh and Streib, 2006; McEntire, 2006). These phases are not linear but functionally interrelated, where pre-disaster efforts such as mitigation and preparedness shape the effectiveness of response and recovery (Alesch et al., 2009; Kapucu and Ozerdam, 2013; Phillips, 2009). However, coordination across government agencies remains a key challenge, especially in urgent situations (Derthick, 2007). In this context, flood risk management (FRM) emerges as a holistic approach that integrates structural measures—such as dams and flood control infrastructure—and non-structural measures like spatial planning, regulation, and community resilience to reduce flood risks (Schanze, 2006; Merz et al., 2010; Jha, Bloch, & Lamond, 2012; Petry, 2002).

To address the complexity of disaster management, collaborative governance is increasingly adopted as an approach that involves public and private stakeholders in consensus-based decision-making (Ansell and Gash, 2007; Emerson et al., 2012; Kapucu, 2012b). This model emphasizes inclusive, formal, and deliberative processes where non-state actors actively participate in policymaking rather than merely being consulted (Ansell and Gash, 2007). Furthermore, collaborative governance enables the integration of diverse knowledge, resources, and capacities across sectors within complex institutional settings (Moynihan, 2005). Emerson, Nabatchi, and Balogh (2012) conceptualize this approach through the Collaborative Governance Regime (CGR), which highlights the interaction between system context, collaborative dynamics, and structured patterns of decision-making. Overall, collaborative governance provides a framework for cross-sector and multi-level collaboration that is essential for addressing complex public problems such as disaster and flood risk management.

Collaborative governance in disaster management refers to the collective efforts of various stakeholders to jointly respond to and recover from the impacts of a disaster. This approach is crucial because disasters often transcend jurisdictional boundaries and the capacity of a single authority, thereby requiring a strong collaborative network during emergencies (Drabek and McEntire, 2002; Kapucu and Garayev, 2012; Waugh and Streib, 2006). This model also serves as a response to the limitations of rigid and closed traditional bureaucratic approaches, by prioritizing a more flexible, network-based system that is consensus-oriented in decision-making (Birkland, 2007; Kapucu, 2006, 2008; Kapucu et al., 2010a; Ward and Wamsley, 2007; Waugh and Streib, 2006).

In the pre-disaster phase, collaborative governance focuses on mitigation and preparedness through disaster risk reduction efforts and the strengthening of community resilience. UNISDR emphasizes that risk reduction is carried out systematically through the management of disaster-causing factors, the reduction of vulnerability, and the enhancement of preparedness (UNISDR, 2009a in Dwirahmadi, 2016, p. 70). To achieve a resilient society, it is necessary to increase public awareness, government commitment, cross-sectoral partnerships, network strengthening, and the development of scientific knowledge (United Nations, 2001 in Dwirahmadi, 2016, p. 71). In this context, collaborative governance enables the strengthening of community capacity through adaptive management and continuous learning while also fostering the involvement of various actors, both governmental and non-governmental (Comfort, Boin, & Demchak, 2010; Kapucu, Hawkins, & Rivera, 2013; Kapucu, 2006; FEMA, 2011 in Kapucu, 2014; Kapucu et al., 2013).

The implementation of collaborative governance during the pre-disaster phase also underscores the importance of multi-level coordination between the government and the community. A study in Jakarta showed that collaboration involves various actors with coordination led by National Disaster Management Agency (*Badan Nasional Penanggulangan Bencana*/BNPB) and BPBD, and combines top-down and bottom-up mechanisms in information exchange (Sunarharum et al., 2014; Jha and Stanton-Geddes, 2013). Nevertheless, authority remains within a top-down command structure. Overall, this approach enables the formation of flexible formal and informal cross-sectoral networks that not only enhance community preparedness but also strengthen the flow of information from the community level to the government in building disaster resilience.

Collaborative governance has become a major method of dealing with complex public problems that go beyond the powers of individual organizations or separate government areas (Ansell & Gash, 2008; Emerson et al., 2012). Yet the success of collaborative efforts is generally restricted by institutional fragmentation, especially in decentralized systems, since the various independent bodies involved have different responsibilities, resources, and political objectives. Agranoff and McGuire (2003) claim that collaborative public management is based on networks that are formed through negotiation, the building of trust, and the sharing of resources, not just on hierarchical authority. In this regard, the Institutional Collective Action (ICA) framework created by Feiock (2009) states that fragmentation raises transaction costs in cooperation between institutions and thus obstructs the attainment of collective action, even if the different parties have the same policy aims. Hence, fragmented collaboration describes a situation in which collaborative relationships and common goals have been set up but effective coordination is still impeded by institutional complexity and fragmented governance structures.

The difficulties are especially clear in the context of metropolitan governance, since issues involving flood control, transportation, and environmental sustainability go beyond administrative borders. Although decentralization enhances the autonomy and democratic accountability of local governments, it can also lead to overlapping areas of authority, unequal levels of institutional capability, and inconsistent implementation of policy among adjacent governments (Ostrom, 2010; Firman, 2009). Deslatte and Feiock (2018) claim that metropolitan governance needs institutional arrangements which are able to lower coordination costs and bring together the interests of various jurisdictions.

It is therefore necessary to understand fragmented collaboration to explain why collaborative governance usually results in uneven outcomes. Collaboration does not tend to develop simultaneously in all areas but tends to move more quickly in the relational elements—such as trust, dialogue, and shared understanding—than in the structural elements, for example in institutional commitment, resource integration, and joint implementation capacity (Ansell & Gash, 2008; Emerson et al., 2012). Drawing on this view, this study conceived of fragmented collaboration as a situation in which collaborative governance advances in an asymmetric manner across its various analytical dimensions. Even though stakeholders have increasingly come to share common goals and collaborative relationships, institutional fragmentation still acts to limit coordinated implementation. This concept formed the theoretical foundation for the analysis of collaborative flood governance in Jakarta and helps to extend the body of literature on collaborative governance within the context of decentralized unitary states.

Dynamics of Fragmented Collaboration in Jakarta's Flood Mitigation

The collaboration process within Jakarta's flood mitigation policy demonstrates complex dynamics and characteristics that can be analyzed using two collaborative governance concepts: the collaborative process by Ansell & Gash and the collaborative dynamics by Emerson & Nabatchi. Based on the dimensions outlined in Ansell & Gash's Collaborative Process and Emerson & Nabatchi's Collaborative Dynamics, these dimensions can be grouped into five major categories: Initial Engagement, which includes face-to-face dialogue and principled engagement; Relational Foundation, which includes trust building and shared motivation; Collaborative Commitment, which consists of commitment to process and shared commitment (as part of shared motivation); Shared Understanding, which includes shared understanding and mutual understanding (also part of shared motivation); and Joint Capacity and Outcomes, which incorporate intermediate outcomes and capacity for joint action. The following section presents an analysis using these five integrated dimensions:

Initiating Collaboration: Dialogue without Deep Coordination

The collaborative process in flood mitigation in Jakarta shows that face-to-face dialogue is the main foundation for building trust and understanding between actors. The initiation of cross-regional meetings facilitated by the Minister of Home Affairs after the 2020 floods shows how direct communication can bring together various interests in one deliberative space. Various forums such as Water Resources Management Coordination Team (TKPSDA/*Tim Koordinasi Pengelolaan Sumber Daya Air*) and River Basin Forum (Forum DAS), as well as the proposal to establish a 'regular forum' by the Mayor of Bogor, illustrate the need for a platform for ongoing dialogue. Beyond formal forums, informal relationships between institutions—such as the closeness between the DKI Jakarta Regional Disaster Management Agency (BPBD DKI) and NGOs—show that interpersonal networks also play an important role. This is confirmed by informants who explain that collaboration often grows from 'long-established relationships', not solely from institutional mechanisms.

The dynamics of principled engagement were evident in the formulation of cross-regional commitments for Jakarta, Bogor, Depok, Tangerang, Bekasi, Puncak and Cianjur (Jabodetabek-Punjur) initiated by the Ministry of Home Affairs. The forum served as a starting point for aligning visions through direct negotiations between actors. As stated by the informant from the Directorate General of Regional Development:

"The Minister of Home Affairs has called on us to discuss the role of the Ministry of Home Affairs in handling issues that affect the Greater Jakarta area... The flood management commitment that was signed in 2020... This is a commitment from everyone, including ministries/agencies, the DKI Jakarta Provincial Government, regents, and mayors in Jabodetabek... This action plan is not a fixed document... it is a living document. That is why we conduct this evaluation every year."

This quote emphasizes that collaboration does not stop at symbolic declarations but continues through an annual evaluation mechanism that opens up space for joint reflection. However, from the perspective of the DKI Jakarta Regional Development Planning Agency (Bappeda DKI), this evaluation process still "tends to be normative," indicating that although the forum has been established, the quality of substantive deliberation still needs to be strengthened.

Although the foundations for communication have been laid, the collaboration process still faces structural challenges such as conflicts of interest, fragmented coordination, and weak problem-solving mechanisms. The case of land acquisition for river normalization shows that classic obstacles cannot yet be resolved through collaborative forums. Criticism that the Renaksi evaluation is “complicated in terms of administration” shows that engagement is still procedural in nature, rather than problem-solving. However, more flexible collaboration dynamics can be seen in the field cooperation between the DKI Jakarta Regional Disaster Management Agency (BPBD DKI) and NGOs such as Human Initiative, as explained by one of the informants from BPBD: *“We work closely with NGOs such as Human Initiative... sometimes without a memorandum of understanding, because what matters is that we share a common vision and complement each other.”* Nevertheless, various obstacles show that trust-building has still not been established and a common perception has not been fully achieved.

The strength of principled engagement in this context lies not only in the existence of formal forums but also in the continuity of dialogue, the willingness to listen, and flexibility in building communication across actors—both formal and informal. Although challenges remain, such as the bureaucratization of evaluation and the lack of community involvement in the initial planning process, the existence of face-to-face interactions and cooperation based on shared values is an important foundation for long-term collaboration. This shows that principled engagement is not only a technical mechanism, but also a strategy for building trust, learning, and equality in the collaborative process.

Uneven Trust and the Limits of Shared Motivation

Trust is one of the foundations for effective collaboration. The process of building trust can be created through face-to-face dialogue between the actors involved in the collaboration process. In the flood mitigation collaboration process in Jakarta, efforts to build trust between these actors have begun to emerge. The intensive approach between BPBD and various NGOs working in the field of disaster management or those concerned with disaster response efforts is the foundation for building this trust. An interesting aspect of building trust between government actors (BPBD) and non-government actors (NGOs) can also be seen in the collaboration process, which is based more on a sense of mutual benefit between the two actors than on a formal agreement between them. The participation of non-governmental actors in various activities carried out by government actors is currently often not regulated in a formal cooperation agreement, but the commitment to carry out activities is based more on mutual dependence between government and non-governmental actors.

Government actors (BPBD) need non-government actors (NGOs) as their extension in providing education to the community, and non-government actors (NGOs) need government actors (BPBD) to validate and provide recognition and support for their activities. The following is an explanation from a non-government actor (Human Initiative) regarding this matter:

“We don’t have any obligations ourselves, except that the Regional Disaster Management Agency (BPBD) always invites us when they have programs. That’s right, ma’am, so we always help the government, especially the BPBD here, and automatically we have to ask for something in return. Just yesterday, we asked for recognition, such as a statement that the school had implemented SPAB, from the BPBD directly.” (NGO informant, 2023)

Building trust among government actors is actually more complex because there are still challenges in establishing that trust. The first challenge relates to finding a leader who can lead collaboration among government actors themselves. Uncertainty about who will be the leader of this collaboration could ultimately hinder the building of trust among lower-level actors, as explained by the urban observer informant, as follows: *"People need guarantees. Who will be the guarantor? That's why, in a collaboration, if there is a big boss, who is it? The president."* (Urban observer informant, 2023). The next challenge is that trust regarding the commitment to share resources has not been fully established or sustained, which can hinder further upstream-downstream collaboration. The mayor of Bogor, for example, sees that unsustainable grants make it difficult for the city of Bogor to finance infrastructure programs that can mitigate the risk of flooding in Jakarta.

Thus, in this collaboration, trust appears to be built through community outreach and recognition of the role of NGOs. This trust is formed from experiences of cooperation in the field, where institutions such as the Jakarta Disaster Management Agency openly acknowledge the strategic role of civil society and non-governmental organizations in aid distribution and psychosocial support. When each actor understands their respective strengths and limitations, mutual trust grows as social capital for collaboration. However, at the inter-regional government level (especially upstream-downstream), issues of grant commitment sustainability and the need for collaborative leadership indicate that building full trust remains a challenge.

In Emerson and Nabatchi's Collaborative Governance Regime model, 'shared motivation' is an important element that binds various actors together in the collaborative process. This component includes awareness of common threats, understanding of the interrelationships between regions and actors, and the perception that collaboration will produce more effective results. The main trigger for the emergence of shared motivation in this context was the major flooding that occurred in Jakarta in 2020. This event not only affected Jakarta, but also surrounding areas such as Bekasi and Tangerang. The informant from the Directorate General of Regional Development, Ministry of Home Affairs, said that the floods triggered complaints from the community and prompted the then Minister of Home Affairs, to initiate a joint commitment between ministries, the DKI Provincial Government, and surrounding local governments. He stated:

"Regarding the floods, in 2020 there was a major flood in DKI Jakarta and it not only affected DKI Jakarta but also West Java, especially Bekasi and Tangerang. That is why at that time, the new Minister of Home Affairs, Mr. Tito Karnavian, was elected. Many complaints were also reported to Mr. Tito..."

The increase in the frequency of flooding was also emphasized by Academician from Research and Innovation Agencies, who stated that: *"Floods used to occur every five years, but now they are becoming more frequent."* This statement confirms that changes in the intensity of disasters are also a factor in creating a sense of urgency that encourages actors to collaborate.

Understanding the interdependence between regions, especially between upstream and downstream, also strengthens shared motivation. A common understanding of the interdependence between upstream and downstream areas makes actors realize that massive changes in land use in upstream areas will have an impact on downstream areas, namely Jakarta, which is part of the Jabodetabek-Punjur ecological region. In addition, the informant from the Ciliwung Cisadane River Basin Agency also explained that the function of the Ciawi and Sukamahi dams as part of flood control demonstrates an understanding of the interconnection

between upstream and downstream systems. Finally, shared motivation also stems from the belief that collaboration can produce more effective solutions. As stated by the informant from the Ministry of Home Affairs: *“That’s right, through collaboration we can handle flooding to the maximum extent possible.”* This reflects a positive perception of the strategic value of cross-sector and cross-regional cooperation.

Trust as the relational foundation for collaboration in Jakarta’s flood mitigation efforts is built through accumulated interactions and shared work experiences in the field. In many cases, trust grows strong between non-governmental actors and technical implementing agencies, as seen in the collaboration between the Jakarta Regional Disaster Management Agency (BPBD DKI) and NGOs, where cooperation is carried out without a formal contract, but rather based on the principles of mutual trust and mutual benefit. This practice demonstrates the development of relational trust through direct recognition of each party’s competence, integrity, and commitment in the field. As revealed by one of the informants from BPBD DKI, the success of disaster response often depends on the speed and flexibility of these relationships rather than on bureaucratic rigidity.

However, the relationship between local governments and ministries still poses challenges in building trust. Issues of sectoral ego, for example in the difference in approach between river normalization and naturalization, have caused resistance between agencies. Leadership that has not been clearly defined—whether it should be controlled by the Ministry of Public Works, the Ministry of Home Affairs, or cross-regional entities such as the Metropolitan Council—has further clouded the clarity of coordination. As a result, institutional trust at the inter-organizational level of government has not been firmly established. The urban observer informant even suggested the need for a ‘big boss’ with clear authority to ensure that all actors move in the same direction, as the level of governor or regional head alone is considered insufficient to break the deadlock of sectoral and political interests.

On the other hand, shared motivation as another dimension in the relational foundation of collaboration can be seen from the common perception of flooding as a shared problem. The big floods in Jakarta in 2020 became a focusing event that made actors across sectors realize that mitigation cannot be done separately. The high frequency of disasters and their impact on vital sectors such as transportation, health, and the economy also reinforced the collective understanding that flood management cannot be delayed and must be collaborative. In addition, the awareness that upstream and downstream issues are interconnected has formed a shared narrative among actors, although cross-regional implementation still faces technical and political obstacles.

Thus, shared motivation develops in response to external pressures and common long-term goals but is not yet fully supported by widespread trust across all levels. To strengthen this relational foundation, there is a need to enhance cross-institutional communication, recognize the strategic roles of each actor, and establish incentive mechanisms that encourage synergy rather than sectoral competition. Without these, collaboration tends to be situational and unsustainable in the long term.

Formal Commitments, Fragmented Implementation

Commitment to the process means developing the belief that negotiating in good faith for mutual benefit is the best way to achieve the desired policy outcomes. This commitment is also related to a sense of ownership over the collaborative process taking place. In 2020, the central

government together with regional governments in the Jabodetabek-Punjur area (Jakarta, Bogor, Depok, Tangerang, Bekasi, Puncak, and Cianjur) signed a joint commitment for flood and landslide management. This commitment was signed online on June 2, 2020, led by the Minister of Home Affairs and attended by several relevant ministers and regional leaders across the Jabodetabek-Punjur area. The main objective of this commitment was to synchronize flood and landslide management programs across regions in an integrated manner, as the area is an interconnected ecosystem between upstream, midstream, and downstream zones. In the agreed-upon action plan, several priority programs were proposed, such as river normalization, dam construction, lake revitalization, and strengthening coastal embankments.

Follow-up to the 2020 Jabodetabek-Punjur joint commitment was carried out through the formulation and implementation of the *Flood and Landslide Management Action Plan for 2020–2024*. The central and regional governments allocated significant budgets; for example, in 2022 alone, the total budget allocated by all regions in the Jabodetabek-Punjur area reached approximately IDR 5.54 trillion to support various flood and landslide mitigation activities. These funds were allocated for activities in upstream, midstream, and downstream areas, with the largest portion used for downstream regions such as DKI Jakarta and its surroundings.

In addition to budgeting, concrete follow-up actions also included the implementation of more than 600 physical and non-physical activities, such as river normalization, construction of flood-control infrastructure, and riverbank protection and regulation. Four main strategies were implemented: coordination and synchronization of cross-regional activities, prevention and risk reduction, increased preparedness, and protection of upstream, midstream, and downstream areas. Regular evaluations were also conducted through assistance and monitoring meetings by the Ministry of Home Affairs and relevant ministries to ensure that action plan implementation met its targets.

Collaboration between the central and regional governments has produced positive impacts, such as a decline in flood frequency in several areas over the past two years. However, up to 2025, the effectiveness of implementing this commitment remains a concern—particularly after a major flood in Jabodetabek-Punjur highlighted the need for continuous evaluation and improvement of flood and landslide management programs in the region.

However, the implementation of this action plan and joint commitment has not been free from problems and criticism. One major criticism relates to the action plan's implementation, which has been heavily administrative, involving complicated reports, rather than focusing on practical solutions. This was expressed by one of the informants from Jakarta's Bappeda as follows: *"The purpose should simply be whether the program is implemented or not, what the obstacles are. That's it—there's no need to make the reporting too complicated."* (Bappeda Jakarta informant, 2023). A change in the action plan mechanism from manual to system-based also made the reporting process more complicated, resulting in regional governments focusing more on preparing reports with various formats instead of the substantive aspects of the action plan.

The existence of this joint commitment reflects an effort to implement integrated flood management in the Jabodetabek-Punjur area. Therefore, although the commitment only applies until 2024, it is hoped that it can be continued, even though implementation is quite difficult due to the sectoral ego of each government actor involved. The following statement was delivered by the informant from the Environmental Development Division, Bappeda Jakarta:

"Hopefully in 2024 this commitment continues, because honestly it is very difficult. It's difficult because each ministry brings its own sectoral ego and the regions are the same."

But at that time, everything could be unified because for us at the regional level, if there was a problem, we went to the Ministry of Home Affairs—our ‘parent.’ Many activities involved BNPB, BPBD, the Ministry of Environment, the Ministry of Public Works, ATR/BPN, and Bappenas. All of this had to be brought together.” (Bappeda Jakarta informant, 2023)

Another important commitment relates to the implementation of grants provided by the Jakarta Provincial Government to surrounding municipalities/regencies, where a two-way commitment is required between Jakarta as the donor and the recipient regional governments in the Jabodetabek-Punjur area to carry out their duties and obligations according to the mutual agreement (based on interview with one of the informants from Bappeda Jakarta, 2023).

Commitment to the process is also shown in collaboration between government actors and non-government actors. However, there is a significant difference in the form of commitment: in collaboration among government actors, commitments are formalized in legally binding agreements, whereas in collaboration between government and non-government actors, commitment is demonstrated through active participation of NGOs and volunteers in BPBD activities rather than through formal agreements. Thus, the nature of commitment differs between collaborations among government actors and those involving government and non-government actors.

In collaboration among government actors, commitment to the process is demonstrated in formal agreements binding all signatories, but implementation in the field still faces difficulties, especially related to coordination challenges and capacity gaps between central and regional governments. Meanwhile, in collaborations between government and non-government actors, commitment is not formalized in written agreements; instead, it is shown through the active participation of NGOs in disaster management and mitigation activities.

Formal commitment in Jakarta’s flood mitigation collaboration is also evident through the signing of the Action Plan (*Renaksi*) by various cross-regional government actors within Jabodetabek as well as through interregional funding mechanisms such as grants from the Jakarta Provincial Government to upstream areas. This demonstrates a shared intention to build a shared commitment as the foundation for collaboration. The Ministry of Home Affairs’ initiative to facilitate the joint commitment after the 2020 major flood became an important starting point for consolidating government actors within a collaborative action framework.

However, although formal structures exist, implementation continues to face various technocratic obstacles, such as bureaucratic complexity, land acquisition delays, and unsynchronized schedules and priorities across agencies. One of the informants from Bappeda DKI noted that *Renaksi* evaluations still tended to be administrative and insufficiently adaptive to field dynamics.

Further challenges also arise from weak commitment across sectors outside the main technical agencies. Key sectors such as environment, health, and spatial planning are still not fully integrated into the collaborative *Renaksi* framework, causing program implementation to remain sectoral. This limits the inter-sectoral synergy expected in collaborative governance.

Among non-government actors, collective commitment is demonstrated through the active participation of NGOs and community groups in various activities, including education, mitigation outreach, and emergency response. As shown by Human Initiative, activities such as

river rafting, tree planting, and community training reflect shared motivation to address flooding not only as a government responsibility but as a shared public concern.

The development of shared commitment is gradual—shaped through collaborative experience, shared perception of the urgency of flood problems, and the awareness that individual efforts alone are insufficient for sustainable impact. Proposals to extend the Renaksi beyond 2024 by key actors indicate a desire for continuity, even though political challenges and coordination barriers remain significant obstacles. Misalignment between government levels, leadership turnover, and sectoral political interests still have the potential to reduce the effectiveness of the joint commitment. Therefore, strengthening institutions, establishing adaptive monitoring and evaluation systems, and providing collaborative incentives are crucial steps to maintain and expand the commitment that has begun to form.

Shared Understanding without Operational Alignment

In a collaborative process, stakeholders must develop a shared understanding of what they can achieve together, which later can become part of a broader learning process. Collaboration in Jakarta's flood mitigation efforts demonstrates that a shared understanding among actors regarding the problems and solutions has begun to form, although it is not yet perfect. Actors involved in flood management collaboration show a relatively aligned understanding of the complexity of flooding and the need for cross-sectoral and cross-regional solutions. This understanding emerges not only at the technical-analytical level but also from awareness of limitations in authority, institutional coordination, and the social impacts of flooding on communities, as conveyed by the former Head of Jakarta's Regional Development Planning Agency (Bappeda) for 2018–2022:

“When we look at Jakarta, it is not only DKI, but I see it based on ecological boundaries. Those ecological boundaries stretch across Jabodetabek—Jakarta, Bogor, Depok, Tangerang, Bekasi. The flood problem cannot be solved by the Jakarta Provincial Government alone. We must work together with upstream regions such as Bogor and Depok because water does not recognize administrative boundaries.”

A similar statement was delivered by the Mayor of Bogor:

“In the past five years, many plans have actually been made to reduce flood risk in Jakarta by managing the environment in Bogor as one of the sources of surface and rainwater. From upstream to downstream; downstream is Jakarta. We understand that upstream regions like Bogor contribute significantly to water flow entering Jakarta. That is why we are very open to cooperation in managing the Ciliwung watershed, but we also need financial support and commitment from the national government and Jakarta... But how do we ensure that the regional heads included in the Ciliwung alliance have the same agreement, including sharing solutions and budgeting?”

Both statements show that government actors—Jakarta Province and Bogor City—already share an understanding that Jakarta's flood problem cannot be resolved without addressing upstream issues. Thus, integrated solutions between upstream and downstream areas of the Ciliwung River are necessary.

Shared understanding is also reflected in the alignment of views regarding the ultimate goals of structural interventions. For example, although the policies of normalization and naturalization

are often seen as opposites, the two share the same objective: restoring the river's function. As stated by one of the informants from BPBD: *"The spirit is actually the same—naturalization and normalization both aim to restore the river's function."* The difference lies only in the most appropriate locus of implementation. Naturalization is more suitable for upstream areas where conditions remain relatively natural, while normalization is more appropriate downstream, where development and construction are more intensive.

However, because the initiation of naturalization led to the halting of river normalization programs, debates emerged about which program is more effective for flood control. According to urban planning expert, normalization is technically more suitable for Jakarta because it restores river capacity. Meanwhile, naturalization in Jakarta attempted to adopt the Singapore model—where a single area is redesigned with controlled river flow and aesthetic embankments. The expert also argued that such a model is difficult to apply in Jakarta due to its longer rivers, larger territory, and higher rainfall. He also cautioned the Jakarta government against being trapped by aesthetics while forgetting historical flood risks:

"Usually the debate is normalization versus naturalization. Technically, normalization is considered the answer because it restores river system capacity. Naturalization is unnecessary in that sense because the Singapore model only applies to one small area where they control water flow and build aesthetic embankments. In the context of spatial aesthetics, naturalization is fine, but Singapore is not like us—shorter rivers, smaller territory, lower rainfall. It's different in scale. But yes, these aesthetic traps are what we must be careful about... Choosing Jakarta as the capital means inheriting a past history of being on a floodplain." (Urban observer informant, 2023)

Today, both programs operate side by side. Their main focus remains river dredging and widening with concrete reinforcement in central urban segments. Evaluations show that naturalization in downstream areas is far less effective (reducing flooding by 5–10%) compared to normalization, which can reduce flooding by up to 40%. Thus, effective and sustainable flood control requires synergy between naturalization and normalization.

Both programs also face the same obstacle: land acquisition. This issue caused naturalization to pause in 2022. Jakarta's Deputy Governor for 2019–2024, Ahmad Riza Patria, stated that the program stopped due to land disputes, as many Jakarta lands lack certification. Land mafia involvement worsened these disputes. Another problem is the large number of illegal settlements along riverbanks. The Jakarta Provincial Government struggles to relocate residents due to rejection stemming from inadequate compensation, lack of available public housing, or outright refusal. Relocation challenges are compounded by limited budget and former Governor Anies Baswedan's political promise to avoid forced evictions.

Thus, although a shared understanding of the flood problem and mitigation goals has developed among government actors, differing views on priorities and implementation—such as normalization versus naturalization and issues with land acquisition—suggest that shared understanding has not yet fully translated into operational alignment. Shared understanding also appears in collaboration between government and non-government actors, especially regarding role division during educational and socialization activities. One of the informants of BPBD Jakarta explained: *"We know who is an expert in what. Some are strong in logistics, others in evacuation, others in psychosocial support. We complement each other."*

This role-sharing understanding was echoed by NGO representative from Human Initiative:

"We have maintained communication with BPBD for a long time—since Ahok's era. There has always been a relationship between NGOs and the government. Usually, we coordinate who goes where, who prepares logistics, who helps evacuation... We don't work alone. For example, public kitchens may be run by BPBD, ACT, or the Social Office—we fill in each other's roles."

This reflects that actors share a common understanding of how to respond to disasters, with clear and flexible role allocation. This collaboration is shaped not only by formal structures but also by shared experience in crisis situations, which strengthens cross-organizational intuition and coordination.

Overall, shared understanding in Jakarta's flood mitigation policy has developed substantially among actors, marked by collective recognition that flooding cannot be addressed in isolation or through sectoral approaches. There is broad agreement that Jakarta's flooding is a systemic ecological issue spanning upstream to downstream areas, requiring coordination across Bogor, Depok, Bekasi, and Jakarta. The mayor of Bogor emphasized this interconnectedness by stating that *"the source of the problem is in Bogor, the river management authority is in Bandung, and the impact is felt in Jakarta."*

The shared understanding also extends to technical matters, where stakeholders increasingly perceive normalization and naturalization as complementary rather than competing approaches, as noted by one of the BPBD informants: *"The political will of regional leaders is to ensure the river returns to its function and that flooding is addressed."* Similarly, during disaster response, role division between government agencies and NGOs runs relatively well, supported by collective experience through training, simulations, early warning systems, and collaborative networks such as the Disaster Response Squad.

Nevertheless, even with substantial shared understanding, challenges remain in translating this into consistent, institutionalized collaborative action—especially for long-term planning and cross-sector integration. Without stronger institutional frameworks and sustained political commitment, shared understanding risks remaining normative rather than fully implemented.

Partial Capacity and the Persistence of Fragmented Outcomes

The presence of intermediate outcomes indicates that collaboration is progressing effectively, as concrete outputs have emerged from the collaborative process. Ansell and Gash consider these outcomes an essential part of building momentum toward successful collaboration. Intermediate outcomes are 'products' generated from the collaborative process that can eventually lead to the final intended results. In Jakarta's flood mitigation efforts, several intermediate outcomes have begun to materialize. One definite example is the development of an action plan as a follow-up to the joint commitment signed by the national and regional governments in the Jabodetabek-Punjur area in 2020. In addition, the construction of several infrastructures—such as the Sukamahi and Ciawi dams, the Ciliwung River diversion tunnel (*sodetan*), and retention ponds in Bogor—represents tangible outcomes resulting from collaboration between central and regional government actors.

One of the more innovative and ongoing intermediate outcomes from structural mitigation efforts is the Giant Sea Wall project, a large-scale coastal barrier designed to protect Jakarta's northern coastline from tidal flooding, erosion, and land subsidence caused by climate change

and excessive groundwater extraction. This project is part of the National Capital Integrated Coastal Development (NCICD) strategy aimed at strengthening Jakarta's resilience to climate change and protecting millions of residents along the northern coast (Antaranews, 2025).

In terms of non-structural mitigation, intermediate outcomes include early warning systems developed through collaboration between BPBD Jakarta, the Ministry of Communication and Digital Affairs, and cellular network providers. Several applications have been created to support flood management in Jakarta, such as: 1) the *Pantau Banjir* App, developed by the Jakarta Provincial Government to provide real-time flood information; 2) the Flood Early Warning App, offering updated information on river water levels over the past 24 hours, CCTV access at water gates, alert notifications, and weather forecasts from BMKG; 3) a flood control system that uses sensors, Internet of Things (IoT) technologies, and artificial intelligence for automated real-time monitoring and flood response.

Regular disaster education and simulation activities conducted in various flood-prone areas and schools in Jakarta—along with the establishment of disaster response forums and squads—also represent intermediate outcomes of collaboration between government and non-government actors. Thus, in Jakarta's flood mitigation collaboration, various intermediate outcomes can be observed, ranging from policy documents, infrastructure development, operational systems, and community-level activities. These demonstrate that despite challenges, collaboration has produced concrete outputs contributing to flood mitigation efforts.

Capacity for Joint Action is a key component in sustaining collaboration. This dimension includes the organization of authority, resource provision, leadership, and supporting infrastructure that enables actors to act in a coordinated manner. In the context of flood management in Jabodetabek, the allocation of authority between the Jakarta Provincial Government and the Ministry of Public Works (PU) reflects a clear division of capacities. The Ministry of Public Works, through the River Basin Authority (*Balai Besar Wilayah Sungai*), is responsible for physical construction such as embankments and dams, while the Jakarta Provincial Government handles land acquisition. Meanwhile, in collaborations between government and non-government actors, capacity for joint action can be seen in the balanced division of roles between BPBD and NGOs, where both parties benefit from the partnership. BPBD acknowledges that NGOs possess adequate competence and capability to provide education and assist in disaster response in Jakarta.

However, significant challenges in land acquisition reveal gaps in collaborative capacity. One of the informants from BPBD DKI stated: *"The construction of the embankment is done by the Ministry, while land acquisition is the responsibility of the Jakarta Government."* Similarly, the informant from BBWS emphasized: *"For projects under the Ministry of PUPR, the land must be provided by the regional government. The obstacle is land acquisition... We have the funding but cannot proceed. That is why we continually coordinate with the Jakarta Government..."* This illustrates that although each governmental actor has its own capacity, successful collaborative action depends on the alignment of these capacities—where one actor's work cannot proceed without the other.

Facilitative leadership also emerges as a crucial factor in driving collaboration. The Minister of Home Affairs plays a central role as the initiator of cross-sectoral commitment. Urban planning expert also highlights the importance of a 'big boss', such as the president or a minister, to unify commitments across agencies and regions. Likewise, researcher from BRIN emphasizes: *"A leader must be able to mobilize the resources under their authority to achieve the targets within*

their scope." Thus, in this collaborative process—particularly between government actors—there remains uncertainty regarding who should serve as the definitive leader of the collaboration.

Regarding resources, two primary funding sources support infrastructure development. For example, the construction of the Sukamahi and Ciawi dams is funded mainly through the national budget (APBN), while river normalization and the Ciliwung diversion tunnel rely on a combination of APBN for physical construction and Jakarta's regional budget (APBD) for land acquisition. However, financial sustainability across regions remains a challenge, as noted by the Mayor of Bogor, who stated that Jakarta has provided grants to Bogor only once, raising concerns about program continuity in Bogor. Beyond funding, collaboration is also reflected in personnel allocation, such as officers from West Java and Jakarta's Water Resource Agencies working together to maintain and monitor the Katulampa Gate. Meanwhile, resource-sharing between government and non-government actors is relatively balanced—BPBD often provides logistical and material support during flood mitigation education activities, while NGOs supply trainers and facilitators. An important aspect is supporting infrastructure and systems. BPBD DKI has developed an early warning system in collaboration with Kominfo and communication service providers. One of the BPBD informants explained that this system strengthens institutional and technological capacity for collaborative flood preparedness and response.

Interestingly, the role of the community also reflects a form of capacity for joint action. Although community members are often passive beneficiaries rather than active collaborators, they have developed strong adaptive capacities based on long-term experience with flooding. In many flood-prone areas, residents have modified their homes into two-story structures, using the upper floor as a refuge during floods. Residents living near riverbanks are also accustomed to monitoring water level increases as evacuation indicators. These experiential adaptations enhance community resilience, but also create reluctance among residents to relocate, thereby complicating land acquisition efforts by the Jakarta Government.

Joint capacity remains partial, indicating that a fully integrated and systematic collective capability among stakeholders has not yet been realized. While each actor—national government, regional governments, technical agencies such as BBWS, and NGOs—possesses capacity, these capabilities have not been fully integrated into a sustainable collaborative system. Fragmentation is evident in the division of responsibilities between central and local governments, where strategic projects—such as river normalization—depend on coordination between PUPR as the technical executor and the Jakarta Government as the provider of land. When one side is unprepared, the entire project becomes delayed, as emphasized by BBWS and BPBD representatives.

Although the allocation of authority between PUPR and Jakarta suggests a supportive structure, implementation challenges persist. BPBD DKI's development of early warning systems and Kominfo's involvement indicate growing technological capacity. Intermediate outcomes such as dam construction, diversion tunnel development, and community-based disaster education demonstrate that collaboration—whether between government actors or between government and civil society—has generated tangible outputs. Yet issues such as inconsistent cross-regional funding and the absence of a clear 'big boss' continue to limit the full potential of collaboration.

Moreover, joint capacity remains ad hoc and reactive, emerging most strongly during large-scale disasters such as the 2020 flood. Outside crisis periods, there is no permanent collaborative institution ensuring continuity of cross-regional programs. Even though a shared

Action Plan (Renaksi) exists as a living document, its implementation is hindered by bureaucracy and limited field-based evaluation. Weaknesses also appear in the absence of a shared data platform accessible across institutions, despite the critical need for hydrological data, project updates, and land status to support joint decision-making.

Furthermore, although civil society organizations and local communities play active roles in education and emergency response, their capacities have not been fully integrated into formal collaborative systems. This indicates that the social and technical capabilities of non-government actors are not yet maximized within the planning and implementation of flood management policies. Thus, joint capacity in Jakarta's flood mitigation collaboration remains fragmented and partial, requiring strengthened institutional coordination, resource integration, and incentive mechanisms to encourage shared commitment and long-term collaboration.

Although the five dimensions of collaborative governance provide complementary perspectives for understanding Jakarta's flood mitigation governance, the findings demonstrate that these dimensions have not progressed uniformly. Rather than reflecting a linear or simultaneous process of collaborative development, the analysis reveals an uneven pattern in which relational dimensions have advanced more substantially than structural and institutional dimensions.

Among the five dimensions, shared understanding represents the most developed aspects of collaboration. Recurrent flood disasters have gradually fostered a common recognition among government agencies, civil society organizations, academics, and affected communities that flooding constitutes a metropolitan-scale problem requiring cross-jurisdictional solutions. This shared awareness has encouraged consensus regarding the need for upstream–downstream coordination, integrated watershed management, and climate adaptation. Similarly, the relational foundation dimension has shown relatively strong progress, as repeated interactions during emergency response, disaster preparedness, and community outreach have strengthened interpersonal trust and communication among operational actors, particularly between BPBD's, NGOs, local communities, and technical agencies. These relational capacities have evolved through continuous interaction and shared experience rather than through formal institutional arrangements.

By contrast, initial engagement and collaborative commitment remain only moderately developed. While numerous coordination forums, multi-stakeholder meetings, and intergovernmental discussions have created opportunities for dialogue, participation is often driven by administrative obligations or specific disaster events rather than sustained collaborative planning. Furthermore, formal commitments among participating organizations remain uneven because agencies continue to prioritize sectoral mandates, institutional interests, and jurisdictional responsibilities. Leadership changes, differing regional priorities, and limited incentives for long-term collaboration further constrain the institutionalization of collaborative commitments.

The weakest dimension is joint capacity and outcomes, where institutional fragmentation continues to limit the effectiveness of collective action despite improvements in communication and shared understanding. Although several collaboration initiatives—including flood infrastructure development, early warning systems, emergency response coordination, and river restoration programs—have generated tangible outcomes, these achievements remain constrained by fragmented authority, inconsistent resources allocation, overlapping institutional mandates, and the absence of permanent metropolitan coordinating mechanism. Consequently, collaboration frequently depends on ad hoc coordination among individual organizations rather than on an integrated governance system capable of sustaining long-term metropolitan flood management.

These differences suggest that collaborative governance develops asymmetrically rather than uniformly across analytical dimensions. Relational dimensions, including shared understanding and trust-building, tend to emerge more rapidly because they are reinforced through repeated interaction and common experiences of flood disasters. In contrast, structural dimensions—including institutional commitment and joint implementation capacity—require more fundamental organizational and political reforms that are inherently more difficult to achieve within Indonesia's decentralized governance system. The coexistence of relatively strong relational collaboration with comparatively weak institutional integration explains why Jakarta has achieved important collaborative initiatives while continuing to experience fragmented implementation.

This comparative analysis also extends the collaborative governance literature beyond the Jakarta case. Much of the existing scholarship has examined collaborative governance within federal systems, where fragmentation primarily arises from constitutionally divided authority across different levels of government. In contrast, the Jakarta case demonstrates that fragmentation in a decentralized unitary state is shaped by overlapping sectoral mandates, fiscal asymmetries, and institutional coordination challenges across multiple autonomous local governments. Consequently, strengthening collaborative governance in metropolitan regions requires not only fostering trust and shared understanding among actors but also establishing durable institutional arrangements capable of coordinating policies, resources, and implementation across administrative boundaries. These findings therefore contribute to collaborative governance theory by demonstrating that the successful evolution of collaboration depends on balancing relational development with institutional integration rather than assuming that all dimensions progress simultaneously. Table 1 shows a comparison matrix of the dimensions from this combined analysis.

Table 1. Comparative analysis of the five dimensions of collaborative governance in Jakarta's flood mitigation

Collaborative Governance Dimension	Level of Implementation	Key Findings	Main Challenges	Interpretation
Shared Understanding	High	Government agencies, NGOs, academics, and communities increasingly recognize flooding as a metropolitan-scale issue requiring upstream–downstream coordination. Recurrent flood events have strengthened consensus regarding integrated watershed management and climate adaptation.	Differences remain in translating shared goals into coordinated implementation because sectoral priorities and regional interests continue to influence decision-making.	Shared understanding has developed through repeated disaster experiences and continuous interaction among stakeholders, providing a strong relational foundation for collaboration.
Relational Foundation	Moderate-high	Regular collaboration during emergency response, disaster preparedness, and public awareness programs has strengthened trust, communication, and informal coordination among operational actors,	Trust is less developed among government institutions because leadership changes, bureaucratic procedures, and organizational interests continue to affect	Relational capacities have evolved more rapidly than institutional arrangements because trust is reinforced through repeated operational collaboration.

Collaborative Governance Dimension	Level of Implementation	Key Findings	Main Challenges	Interpretation
		particularly between BPBD, NGOs, and local communities.	interagency relationships.	
Initial Engagement	Moderate	Multiple coordination forums, stakeholder meetings, and intergovernmental discussions facilitate dialogue and information exchange among actors.	Participation often depends on disaster events or administrative requirements rather than sustained collaborative planning. Community involvement remains relatively limited during strategic decision-making.	Collaborative engagement exists but remains event-driven and has not yet become a continuous metropolitan governance mechanism.
Collaborative Commitment	Moderate-low	Formal agreements and collaborative programs demonstrate organizational willingness to cooperate in flood mitigation. Several agencies participate in joint planning and emergency management activities.	Sectoral mandates, overlapping authority, differing regional priorities, and leadership turnover reduce long-term institutional commitment and policy consistency.	Organizations support collaboration in principle, but institutional commitment remains constrained by decentralized governance structures and fragmented authority.
Joint Capacity and Outcomes	Low	Collaborative initiatives have produced tangible outputs, including flood infrastructure, early warning systems, emergency response coordination, and river restoration programs.	Resource disparities, inconsistent funding, fragmented institutional authority, land acquisition constraints, and the absence of a permanent metropolitan coordinating institution limit integrated implementation.	Although collaborative outputs have been achieved, long-term governance capacity remains weak because structural integration has not progressed at the same pace as relational collaboration.

Source: Author's analysis, 2026

Thus, flood mitigation collaboration in Jakarta is an evolving collaborative regime facing dynamic challenges. The threat of recurring floods has created strong shared motivation and encouraged early principled engagement through cross-sectoral commitments. The collaboration process (such as dialogue and the development of Renaksi) has produced intermediate outcomes in the form of infrastructure, systems, and community programs. However, this collaboration still struggles with strengthening trust between actors (especially in resource sharing) and increasing capacity for effective joint action. Obstacles such as land acquisition and bureaucratic evaluation show that despite formal commitments and shared understanding, transforming these into smooth collective action still requires stronger facilitative leadership and better resolution of conflicting interests. This combined model helps explain why, despite many collaborative efforts, flooding problems persist due to the gap between collaborative intentions and fragmented implementation.

These results also point to a form of fragmented collaboration. Agranoff and McGuire (2003) implicitly view fragmented collaboration as a situation in which inter-agency or inter-regional collaboration takes place within a fragmented system due to overlapping authorities, the absence of a binding central authority, and differences in institutional interests. In federal systems such as the United States, this fragmentation arises from the large number of government entities and non-governmental organizations that work autonomously. In decentralized countries such as Indonesia, political, administrative, and fiscal decentralization has led to the formation of various actors at the local level, each with their own authority. Each region may have different development priorities, fiscal capacities, and institutions. This increases the potential for policy fragmentation and coordination issues, especially in cross-regional issues such as water resource management, transportation, or disaster mitigation. This makes fragmented collaboration a consequence that can occur from both decentralization and federalism. Meanwhile, Deslatte and Feiock see fragmented collaboration as arising from coordination risks, namely when collaborative efforts are carried out without a cohesive institutional framework and without stable interaction mechanisms (Deslatte & Feiock, 2018).

Thus, fragmented collaboration can be understood as a form of collaboration that takes place in fragmented governance, where public and non-public actors operate in isolated institutional spaces. Both Agranoff and McGuire and Deslatte and Feiock emphasize the importance of building coordination structures and interaction platforms that can bridge this institutional fragmentation. Within this framework, the success of collaboration is determined not only by political will, but also by the institutional capacity to align perceptions, build trust, and reduce the risk of coordination failure.

Conclusion

The collaborative governance for flood mitigation in Jakarta has evolved unevenly across the five analytical dimensions adopted in this study. Although relational dimensions, especially shared understanding and trust among stakeholders, have advanced through continuous interaction and shared experiences of flood disasters, structural dimensions—including institutional commitment and collaborative implementation capacity are still limited by divided authority, conflicting mandates, and a lack of a permanent metropolitan coordinating body. These results enhance the collaborative governance literature by presenting the idea of fragmented collaboration, which illustrates how decentralized metropolitan collaborative governance can produce beneficial relational and operational results despite remaining institutionally fragmented. The results also broaden the scope of collaborative governance research beyond the federal governance frameworks prevalent in earlier studies by showing how decentralization within a unitary state results in unique coordination difficulties for metropolitan governance.

From a practical perspective, the results indicate that enhancing metropolitan flood governance demands institutional changes that support current collaborative partnerships. Creating a lasting metropolitan coordination entity, enhancing supportive leadership, combining intergovernmental planning and data sharing frameworks, and instituting shared funding strategies are crucial for converting disjointed collaboration into enduring cooperative efforts. While this research offers important insights into collaborative governance within decentralization, its conclusions are constrained by the reliance on single case study and the limited inclusion of community viewpoints. Subsequent studies should conduct comparative

urban analyses and involve a wider array of stakeholders to investigate the development of collaborative governance in various institutional settings.

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Interview Transcripts

- In-depth interview with the former Head of Jakarta Regional Planning Agency 2020–2022 (2022, December 15)
- In-depth interview with an academician from Indonesia Research and Innovation Agency (2022, December 27)

In-depth interview with an urban planning expert (2023, June 14)
In-depth interview with three informants from the Environmental Management and Spatial Planning Division (PLH), Bappeda Jakarta (2023, June 16)
In-depth interview with an informant from the Directorate of Regional Development, Ministry of Home Affairs (2023, June 27)
In-depth interview with an informant from BBWS Ciliwung Cisadane (2023, July 13)
In-depth interview with informant 1 from Jakarta Disaster Management Agency (2023, July 27)
In-depth interview with informant 2 from Jakarta Disaster Management Agency (BPBD) (2023, August 3)
In-depth Interview with NGO Human Initiative (2023, September 13)
In-depth Interview with NGO Wahana Visi (2024, July 19)
In-depth Interview with the Mayor of Bogor City (2025, January 16)
In-depth interview with a local resident (2024, July 17)
In-depth interview with a local resident (2024, July 26)
in-depth interview with a Katulampa Dam Technician (2023, August 12)