Assessing Collaborative Governance of an Indonesian Regional Water Supply System

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Abstract

The Mamminasata Regional Water Supply System (SPAM) was developed to supply bulk water to Makassar City and the regencies of Gowa, Maros, and Takalar. This study examines the conditions, institutional arrangements, leadership, and collaborative processes that have shaped this situation, as well as the factors supporting and hindering collaboration. It draws on an exploratory qualitative case study using Ansell and Gash's collaborative governance model and the Institutional Analysis and Development (IAD) framework. Data were collected through interviews with 17 informants between July and September 2026, a review of 15 documents, and observation of a cooperation-agreement meeting on 14 September 2026. The findings show that the shared need for water keeps the parties engaged, but differences in authority, resources, and knowledge leave them waiting for one another to act. Although the coordination forum brings stakeholders together, its participants often lack the authority to make decisions, while the management unit still has no definitively appointed head. As a result, collaboration moves forward on technical matters but stalls over the tariff.

Keyword: collaborative governance, regional water supply system, IAD framework,

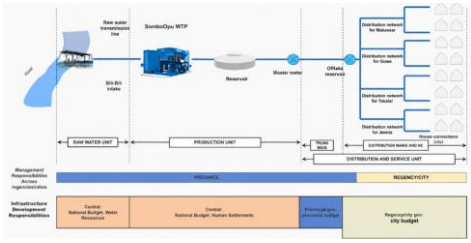
Introduction

Universal access to safe drinking water remains a challenge in Indonesia. Following the decentralization of government functions, the responsibility for drinking water services has been assigned to regency or city-level local governments (Law No. 23 of 2014). This arrangement becomes complex when raw water sources cross administrative boundaries or are located in only one jurisdiction, leaving regencies in need of water unable to access it independently. A regional drinking water supply system (sistem penyediaan air minum —SPAM) is often pursued as a solution. Infrastructure is built with central government funding, a provincial-level unit (unit pelaksana teknis daerah —UPTD) is designated as the bulk water supplier, and the local municipal water utility (perusahaan daerah air minum —PDAM) acts as the offtaker. Despite this, the system often fails to become operational because no agreement has been reached regarding assets, tariffs, or management.

This study focuses on Mamminasata Regional SPAM as the case study. Mamminasata Metropolitan Area is designated as a strategic national area and consists of five municipality/regencies (Makassar City and the Regencies of Gowa, Maros, and Takalar). Nevertheless, access to piped water supply in the metropolitan area remains far from universal. In 2023, service coverage reached 51.15% in Makassar but only 32.41%, 27.20%, and 28.22% in Gowa, Maros, and Takalar respectively (Directorate of Water Supply, 2025).

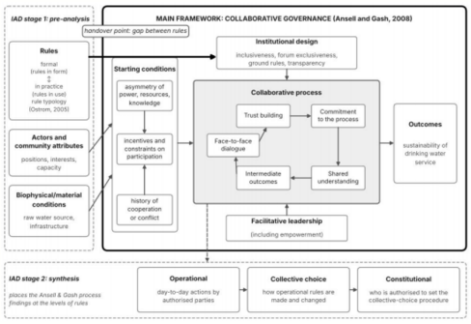
Research Method

We employed qualitative and exploratory case study research (Yin, 2018). Semi-structured interviewed (Merriam and Tisdell, 2009) to seventeen key informants were conducted between 27 July and 25 September 2026. Firstly, to understand the 'rules of the game' of Mamminasata's regional SPAM, we employed Institutional Analysis and Development (IAD) framework to map actors, formal rules and rules in practice, and action situations. Secondly, the output from this IAD mapping subsequently serves as input for the second layer analysis using Ansell & Gash' (2008) collaborative governance framework.



Picture 1. Maminnasata Regional Water System

Thirdly, the synthesis of the finding relies on IAD framework, as described by McGinnis (2011), to understand the specific decision-making levels at which collaborative issues arise—particularly regarding authority, the formation of agreements, and the implementation of decisions.



Picture 2. Analytical Framework

Discussion & Result

The findings show that collaboration in the Mamminasata Regional SPAM is sustained by a strong shared need for water, completed infrastructure, pressure to protect public investment, and continued facilitation. However, these drivers have not been sufficient to move the system into operation. Interdependence keeps the four regions engaged, but it is unequal and largely sequential: each party waits for another to act before committing its own resources. Differences in authority, financial capacity, and access to information further complicate cooperation. The result is a persistent gap between technical readiness and actual service delivery, despite the availability of approximately 220 litres per second.

The institutional arrangements provide a forum for stakeholder coordination, but do not ensure that decisions can be made. Meeting participants often represent their institutions without holding the authority to commit them. Meanwhile, the management unit (UPTD) remains underpowered, with an acting head, limited personnel, and no definitive institutional status. Its lack of authority to determine tariffs and secure operational requirements leaves key decisions unresolved. The cooperation agreement also lacks clear decision-making procedures, sanctions, and mechanisms for resolving disputes. Changes in leadership and personnel, incomplete infrastructure responsibilities, and limited regional budgets further weaken institutional continuity.

Leadership and the collaborative process show a similar pattern. The Balai and provincial agencies have kept communication going, while development partners provided additional facilitation until January 2025. However, those most active in facilitating collaboration do not hold the mandate to make binding decisions, while senior decision-makers are often absent from the forum. Dialogue and trust have developed, particularly around technical matters, and successful flow tests demonstrate that the parties can reach agreement. Yet the process stalls when it comes to tariff calculation and financial commitments. Two turning points illustrate this pattern: the termination of external support in January 2025 and the September 2026 meeting, which introduced a phased agreement prioritising Gowa and Takalar, supported by a special power of attorney.

The six identified drivers and six barriers do not operate independently. The most significant constraint is the unresolved status of the management entity, which is closely tied to the tariff deadlock. Without an authorised manager, the tariff cannot be formally established; without an agreed tariff, water cannot be sold and operational revenue cannot be secured. This creates a cycle in which institutional arrangements depend on financial decisions, while financial decisions depend on institutional arrangements. The findings identify an authority node at this intersection: the unresolved question of who has the mandate to make binding decisions and through which institution.

Conclusion

Collaboration in the Mamminasata Regional SPAM has been sustained by shared water needs and continued coordination, but remains unable to deliver its intended service outcomes. The central barrier is the unresolved authority node: the absence of a clearly mandated institution and decision-maker to establish the management arrangements and bulk-water tariff. Moving forward requires decisions on management and tariff-setting authority first, followed by stronger coordination and phased implementation across the four regions.