

Governing Rural Water through Participation: A Policy Design Analysis of Indonesia's PAMSIMAS Program

Bunga Alicia^{1*}, Dewi Noor Azijah², Mochamad Faizal Rizki³

^{1,2,3}Universitas Singaperbangsa Karawang, Indonesia
(Jl. HS.Ronggo Waluyo, Puseurjaya, Telukjambe Timur, Karawang, Jawa Barat 41361, Indonesia)

*Corresponding author: aliciabunga1919@gmail.com

ABSTRACT

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Rural water provision in Indonesia remains a persistent governance challenge, particularly because access, service continuity, and infrastructure maintenance depend not only on technical delivery but also on institutional design and local participation. PAMSIMAS has been widely promoted as a community-based drinking water and sanitation program, yet the way participation is designed as a policy mechanism for governing rural water services remains insufficiently examined. This article aims to analyze how participation is embedded in the policy architecture of Indonesia's PAMSIMAS program and how it shapes the distribution of roles, responsibilities, and accountability among state and community actors. Using qualitative document-based policy design analysis, the research examines official policy documents, program guidelines, technical manuals, institutional reports, and relevant scholarly literature. The findings show that participation functions as a governance logic that connects community involvement, local ownership, shared contribution, institutionalized management, and service sustainability. However, participation also carries critical risks when community responsibility becomes a substitute for sustained state support. The analysis implies that effective rural water governance requires participatory mechanisms supported by durable public commitment, inclusive decision-making, technical assistance, affordability safeguards, and clear accountability structures.



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INTRODUCTION

Access to safe drinking water and adequate sanitation remains a central challenge in rural governance because it concerns not only infrastructure provision, but also the institutional capacity of the state to organize basic public services through locally embedded mechanisms. At the global level, the 2025 WHO/UNICEF Joint Monitoring Programme reported that 2.1 billion people still lacked safely managed drinking water in 2024, while 3.4 billion people lacked safely managed sanitation (Kasri et al., 2017). This global challenge is also visible in Indonesia, where national access indicators have improved but rural disparities remain significant. In 2024, Indonesia's access to improved drinking water reached 92.64 percent and adequate sanitation reached 83.60 percent, yet rural access to improved drinking water remained at 87.06 percent compared with 96.56 percent in urban areas. The gap is even more visible in access to clean drinking water sources, where urban households reached 85.26 percent while rural households reached only 69.43 percent (Ikhsan et al., 2024).

Indonesia's Community-Based Drinking Water and Sanitation Program, widely known as PAMSIMAS, has been one of the country's major policy instruments for addressing rural water and sanitation inequalities through participation-oriented governance. By December 2021, PAMSIMAS had reached 35,443 villages across 33 provinces, provided 24.4 million people with improved access to water supply, and supported 16.4 million people with access to sanitation facilities (Selintung & Bakri, 2023). The program also reported that 82 percent of PAMSIMAS villages had achieved open-defecation-free status, indicating its large-scale contribution to rural public service expansion. These achievements demonstrate that PAMSIMAS is not merely an infrastructure program, but a governance model that seeks to organize rural water provision through community involvement, village-level institutions, local contribution mechanisms, and shared responsibility between the state and citizens.

The theoretical framework integrates policy design with co-production theory to explain how participation is transformed from a normative principle into an operational governance arrangement. Policy design concerns the deliberate alignment of policy goals with instruments, target groups, implementation procedures, and institutional configurations through which governmental objectives are pursued (Wijayanti et al., 2021). Co-production, meanwhile, refers to the joint contribution of public agencies and citizens to the production and delivery of goods or services conventionally associated with governmental provision. Bringing these perspectives together makes it possible to examine not only whether communities participate, but also how policy instruments define the conditions, resources, responsibilities, and boundaries of that participation. In PAMSIMAS, co-production is therefore not assumed to arise spontaneously; it is institutionally designed through community planning, resource contributions, local management organizations, facilitation, and government oversight.

The state of the art on PAMSIMAS and community-based rural water governance has produced important insights into program functionality, sustainability, community contribution, local management, gender participation, and service effectiveness. A study of 28,936 PAMSIMAS projects across 33 provinces found that 85.4 percent of water supply systems were fully functioning, 9.1 percent were partially functioning, and 5.5 percent were not functioning (Raharini & Frinaldi, 2024). Another study using 10,789 PAMSIMAS village-level data showed that 93.6 percent of systems were categorized as well functioning, and that regular monthly cash contributions were more influential for sustainability than initial in-kind community contributions (Wibowo et al., 2024). More specifically, insufficient analytical attention has been paid to the relationship between policy design and co-production: how state-designed instruments enable community involvement while simultaneously defining its scope, allocating its responsibilities, and constraining its autonomy. Addressing this gap makes it possible to

explain governance hybridity as an institutional outcome of policy design rather than as an incidental feature of program implementation.

Despite the growing literature on PAMSIMAS, a significant research gap remains in explaining how participation is deliberately designed as a governance mechanism within the program's policy architecture. Existing studies tend to examine whether community participation improves functionality, whether local institutions sustain services, or whether financial contribution strengthens operation and maintenance (Herlinda et al., 2020). Less attention has been given to how participation is embedded in policy objectives, actor configurations, institutional arrangements, procedural rules, funding mechanisms, and accountability structures. This gap is important because community participation in rural water governance is not simply a social practice emerging from local initiative, but also a policy instrument shaped by national program design and translated into village-level governance procedures. The present study therefore shifts the analytical focus from participation as an implementation outcome to participation as a designed mechanism for governing rural water services (Yulianto et al., 2023).

The problem addressed in this study is that participation in Indonesia's rural water and sanitation policy is often normatively framed as community empowerment, while its function as a state-designed governance instrument remains insufficiently examined. PAMSIMAS formally promotes community-based development, local ownership, and sustainability, but these principles are operationalized through structured stages, technical guidelines, institutional templates, contribution requirements, and monitoring arrangements. This creates a policy design problem in which participation becomes both an empowering principle and an administrative mechanism for organizing service delivery. The study argues that understanding PAMSIMAS requires closer attention to how participation is designed to distribute responsibilities among communities, village governments, facilitators, local water management institutions, and higher-level state actors. This analytical direction is consistent with the core concern of the original proposal, which positions PAMSIMAS as a community-based program situated within village governance and public service delivery.

This research is urgent because Indonesia's progress in rural water and sanitation access increasingly depends not only on expanding infrastructure, but also on improving the quality of governance design. The persistence of rural-urban disparities shows that technical provision alone is insufficient when local institutions, financing arrangements, maintenance responsibilities, and participatory mechanisms determine whether services remain functional over time. Linking policy design with co-production provides a stronger basis for assessing whether participatory instruments generate complementary state-community capacities or merely relocate implementation burdens to rural communities. Academically, this study contributes to debates on public policy, rural governance, participatory development, and co-production by showing that participation should be examined not merely as a normative ideal or empirical behavior, but as a structured element of policy design. Practically, the study offers insight for improving future rural water and sanitation policies so that participation strengthens local capacity without reducing communities to administrative implementers of state-designed programs.

METHOD

Research Design

This study employs a qualitative, document-based policy design analysis to examine how participation is structured as a governance mechanism within Indonesia's PAMSIMAS program. The research is designed as non-field research, meaning that it does not rely on interviews, surveys, or direct observation. Instead, it analyzes formal policy texts, regulatory documents, program guidelines, technical manuals, institutional reports, and scholarly literature related to

rural water governance, community participation, and public service delivery. This design is appropriate because the central aim of the study is not to evaluate community behavior at the implementation level, but to examine how participation is embedded in the design of the policy itself.

The study is guided primarily by a policy design analysis approach. This approach enables the researcher to examine the relationship between policy goals, policy instruments, institutional arrangements, actor configurations, procedural mechanisms, and expected governance outcomes. In this study, participation is treated not merely as a normative ideal or an implementation variable, but as a designed policy mechanism through which the state organizes rural water service delivery. The analysis therefore focuses on how PAMSIMAS defines the role of communities, village governments, facilitators, local water management institutions, and higher-level state actors within the broader architecture of rural water governance.

The study is also supported by interpretive document analysis. This interpretive element is used to examine how key concepts such as “community-based development,” “participation,” “empowerment,” “local ownership,” “shared responsibility,” and “sustainability” are framed in policy and program documents. By combining policy design analysis with interpretive document analysis, the study is able to move beyond a descriptive account of PAMSIMAS and provide a deeper explanation of how participation functions as a governing logic in Indonesia’s rural water policy. This methodological orientation is consistent with the broader focus of the original research topic, which places PAMSIMAS within the intersection of village governance, public service delivery, and community-based water and sanitation management.

Sources of Data

The data for this study consist of documentary materials related to Indonesia’s rural water and sanitation policy, particularly the PAMSIMAS program. The primary data sources include official policy documents, government regulations, national development planning documents, PAMSIMAS implementation guidelines, technical manuals, operational procedures, monitoring and evaluation reports, and institutional documents issued by relevant government agencies or program authorities. These documents are selected because they provide direct insight into how participation is formally designed, institutionalized, and operationalized within the program.

The study also uses secondary sources to strengthen the conceptual and analytical framework. These sources include peer-reviewed journal articles, academic books, policy reports, development agency publications, and previous studies on PAMSIMAS, rural water governance, participatory development, community-based service delivery, co-production, and local governance. Secondary literature is used to position the study within existing scholarly debates and to identify how previous research has examined participation in relation to program effectiveness, sustainability, institutional performance, or community contribution. In this study, however, the literature is not used as the primary object of analysis, but as a theoretical and comparative foundation for interpreting the policy design of PAMSIMAS.

The documents are selected through purposive sampling based on three main criteria: relevance, authority, and analytical value. Relevance refers to the extent to which a document discusses PAMSIMAS, rural water and sanitation governance, participation, village-level service delivery, or community-based development. Authority refers to the credibility of the document, particularly whether it is issued by an official institution, recognized development agency, or reputable academic source. Analytical value refers to the extent to which the document contains information about policy goals, institutional roles, implementation procedures, funding mechanisms, accountability arrangements, or sustainability strategies. Documents that are

purely promotional, outdated without analytical relevance, or unrelated to policy design are excluded from the main analysis.

Research Instrument

The main research instrument in this study is a document analysis protocol developed by the researcher. This protocol serves as a systematic guide for identifying, reading, extracting, coding, and interpreting relevant information from the selected documents. It ensures that each document is examined consistently according to the central analytical focus of the study, namely the design of participation in PAMSIMAS. The protocol includes several analytical dimensions, such as policy objectives, definitions of participation, actor roles, institutional arrangements, decision-making procedures, community contribution mechanisms, local management structures, monitoring systems, and sustainability strategies.

A coding matrix is also used as an auxiliary instrument to organize the extracted data. The matrix allows the researcher to classify information across documents and compare how participation is framed in different policy texts. For example, one part of the matrix records how communities are positioned within the program, whether as beneficiaries, contributors, implementers, managers, decision-makers, or co-producers of public services. Another part records how state actors structure participation through rules, procedures, funding requirements, institutional templates, and reporting mechanisms. This instrument is important for tracing the connection between policy language and policy design.

In qualitative policy analysis, the researcher also functions as an interpretive instrument. This means that the researcher is responsible for making analytical judgments about the meaning, structure, and implications of policy texts. To strengthen analytical rigor, the study applies repeated reading, systematic coding, memo writing, cross-document comparison, and transparent categorization. Analytical memos are used throughout the process to record emerging interpretations, conceptual patterns, and possible tensions between the normative language of participation and the administrative mechanisms through which participation is organized.

Data Collection Process

The data collection process begins with the identification of relevant documents. The researcher first collects official policy and program documents related to PAMSIMAS, rural water supply, sanitation, village governance, community-based development, and public service delivery. The search also includes academic literature and policy reports that discuss participatory governance, rural water management, local institutions, and the sustainability of community-based infrastructure. This initial stage aims to build a broad documentary corpus that captures both the formal policy architecture and the scholarly context of the program.

The second stage is document screening and selection. Each document is reviewed to determine whether it is relevant to the research focus. Documents are retained when they provide information about participation, institutional design, community roles, village-level implementation, financial contribution, local management institutions, or governance arrangements in rural water and sanitation policy. Documents that do not contribute to the analysis of policy design are set aside. This screening process ensures that the final set of documents is analytically focused and directly connected to the study's main purpose.

The third stage is document classification. The selected documents are grouped into several categories, including regulatory documents, development planning documents, program implementation guidelines, technical manuals, operational documents, monitoring and evaluation reports, and academic literature. This classification is important because each type of document serves a different analytical function. Regulatory documents reveal the legal and

institutional basis of the program. Planning documents show how rural water and sanitation are positioned within national development priorities. Program guidelines and technical manuals explain how participation is operationalized. Academic literature provides theoretical and empirical insight for interpreting the policy design.

The fourth stage is close reading and data extraction. Each document is read carefully to identify passages related to policy goals, participation, empowerment, local ownership, village institutions, implementation stages, community contribution, accountability, and sustainability. Relevant excerpts are extracted and entered into the coding matrix. During this process, the researcher does not only collect descriptive information, but also notes how certain concepts are emphasized, repeated, connected, or left ambiguous. This stage provides the foundation for the subsequent coding and interpretation process.

The final stage is source triangulation. Since this study does not use field data, triangulation is conducted by comparing different types of documents. Official policy documents are compared with implementation guidelines, technical manuals, evaluation reports, and academic studies. This comparison allows the researcher to examine whether the policy discourse of participation is consistent across documents or whether there are differences between the normative framing of community empowerment and the procedural design of program implementation. Through this process, the study improves the credibility and depth of its document-based analysis.

Data Analysis

The data analysis is conducted through five interconnected stages: document familiarization, thematic coding, policy design mapping, interpretive analysis, and theoretical synthesis. The first stage, document familiarization, involves repeated reading of the selected documents to understand their content, purpose, institutional context, and relevance to the study. This stage allows the researcher to develop a comprehensive understanding of how PAMSIMAS is presented as a rural water and sanitation policy and how participation is situated within its program logic.

The second stage is thematic coding. At this stage, relevant textual segments are coded according to recurring themes and concepts. Initial codes may include community participation, empowerment, local ownership, shared responsibility, village governance, facilitation, community contribution, KPSPAM, sustainability, monitoring, accountability, and service maintenance. These codes are generated both deductively from the conceptual framework and inductively from the documents. Deductive coding ensures that the analysis remains connected to policy design theory, while inductive coding allows new patterns to emerge from the documents themselves.

The third stage is policy design mapping. This stage is central to the study. The coded data are mapped according to major components of policy design, including policy goals, target groups, policy instruments, implementing actors, institutional arrangements, procedural mechanisms, resource allocation, and expected outcomes. This mapping enables the study to explain how participation is designed into the architecture of PAMSIMAS. It also helps identify whether participation operates mainly as a decision-making mechanism, a contribution mechanism, a local management mechanism, an accountability mechanism, or a sustainability mechanism.

The fourth stage is interpretive analysis. This stage examines the meanings and assumptions embedded in the policy design. The analysis explores how the program imagines the community, how it defines local responsibility, how it positions the village government, and how it frames sustainability as a shared obligation between the state and rural citizens. It also examines whether participation is framed as empowerment, co-production, administrative involvement, or community responsibility for maintaining infrastructure. This interpretive stage

is important because it reveals the underlying governance logic of PAMSIMAS rather than merely describing its procedural components.

The final stage is theoretical synthesis. The findings from the coding, mapping, and interpretation stages are integrated into a coherent argument about how PAMSIMAS governs rural water through participation. The synthesis explains how participation functions as a policy design mechanism that connects infrastructure provision, local institutional formation, community contribution, village-level governance, and long-term service sustainability. The analysis is expected to show that participation in PAMSIMAS is not simply a bottom-up social practice, but a structured element of policy design that organizes the distribution of roles and responsibilities among state and community actors. Through this analytical process, the study contributes to broader debates on rural governance, participatory development, public service delivery, and the design of community-based policy instruments.

RESULTS AND DISCUSSION

Participation as a Policy Logic

Participation operates in PAMSIMAS not merely as a democratic principle, but as the core policy logic through which rural water governance is made governable. The program does not treat rural water provision as a conventional infrastructure-delivery problem in which the state builds facilities and communities passively receive them (Taufiq & Duta Mega, 2021). Instead, it constructs the community as a governing subject that is expected to identify needs, contribute resources, participate in planning, support implementation, and sustain the service after construction. This is consistent with the official PAMSIMAS objective of increasing community access to sustainable drinking water services through a community-based approach, but the more critical point is that “community-based” functions as a design rationale that shifts the burden of sustainability from state provision alone to an organized system of shared responsibility.

This logic is particularly visible in the way PAMSIMAS links participation to sustainability. The official program architecture requires community willingness to provide financial or in-kind contributions, provide land for water infrastructure, operate and maintain the constructed facilities, and follow all stages of implementation according to program guidelines (Pakaya et al., 2026). At the village level, government actors are also expected to receive infrastructure assets, administer them as village assets, allocate resources for operation and maintenance, and support the expansion of household connections. These requirements show that participation is not simply an invitation for community voice; it is also a mechanism for embedding state policy into local obligations, local institutions, and local fiscal responsibility.

The policy logic of participation in PAMSIMAS can therefore be understood as a layered design. At the normative level, participation promises empowerment, ownership, and inclusion. At the operational level, participation becomes a set of procedures, contributions, roles, and responsibilities (Priadi et al., 2025). At the governance level, participation becomes a means through which the state extends rural water services while relying on communities to absorb part of the work of implementation, monitoring, maintenance, and long-term service continuity. This dual character makes PAMSIMAS analytically important: it is not simply a bottom-up development program, but a state-designed participatory governance arrangement. This also aligns with the broader concern of the original research proposal, which situates PAMSIMAS within village governance, public service delivery, and community-based water and sanitation management.

Table 1. Policy Logic of Participation in PAMSIMAS

Policy Logic	Meaning in PAMSIMAS Design	Governance Implication
Community participation	Communities are involved in planning, implementation, and management.	Participation becomes the entry point for organizing rural water services at the village level.
Local ownership	Communities and village institutions are expected to support service continuity after construction.	Responsibility for sustainability is partly shifted to local actors.
Shared contribution	Communities contribute cash, labor, materials, or land to support program implementation.	Participation becomes linked to financial and material responsibility.
Institutionalized management	Local institutions such as KPSPAM are formed to manage operation and maintenance.	Community participation is transformed into a formal governance structure.
Sustainability	Water services are expected to continue beyond the project cycle.	Long-term service performance depends on local capacity, commitment, and institutional support.

Source: Author's analysis based on PAMSIMAS official program documents and World Bank program reports, 2019–2025

The table 1 shows that participation in PAMSIMAS is not a single policy value, but a composite logic that connects service access, empowerment, contribution, ownership, and sustainability. This is precisely what makes participation powerful as a governance mechanism. It allows the state to frame rural water provision as locally owned, socially embedded, and institutionally sustainable (Mila et al., 2025). However, the same logic also carries a critical ambiguity. When participation is translated into contribution requirements, operational duties, and compliance with technical procedures, the community is no longer only a rights-bearing public service user. It also becomes a co-financer, implementer, caretaker, and risk-bearing institution within the policy system.

This ambiguity is central to understanding how PAMSIMAS governs rural water through participation. The World Bank describes the program as expanding a community-driven approach through direct grants, technical assistance, capacity building, community planning, procurement, management, and monitoring (Purba & Wahyu, 2022). Such design elements are often presented as evidence of empowerment because they increase community involvement in the service cycle. Yet, from a policy design perspective, they also reveal how participation becomes a technology of governance. Communities are empowered, but they are empowered to perform roles already specified by program rules. They are included, but inclusion occurs within a framework that determines what counts as legitimate participation, who represents the community, and which responsibilities must be carried locally.

A critical reading must therefore avoid treating participation as inherently emancipatory. In PAMSIMAS, participation is valuable because it can strengthen local ownership, improve responsiveness, and increase the likelihood that infrastructure will continue functioning after project completion (Selintung & Bakri, 2023). At the same time, participation may become administratively instrumental when communities are mobilized mainly to secure land, provide contributions, execute community action plans, maintain infrastructure, and support behavioral change targets. The policy risk is that participation becomes less about democratic influence over service design and more about making rural communities responsible for the sustainability of

services whose broader financing, technical standards, and institutional rules are designed elsewhere.

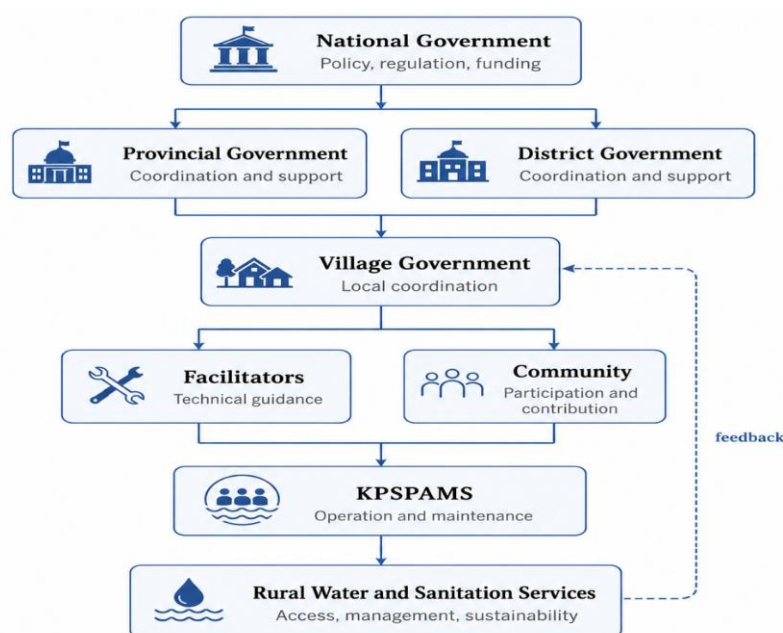
The strongest analytical implication is that PAMSIMAS does not simply “add” participation to rural water policy. It governs through participation. Participation becomes the bridge between national service-delivery objectives and village-level implementation capacity (Al Djono & Daniel, 2022). It translates infrastructure provision into a local governance arrangement, where water systems are expected to survive through community contribution, village government support, and local management institutions. This design is innovative because it recognizes the limits of centralized service delivery in rural Indonesia. Yet it is also politically consequential because it redistributes responsibility downward and makes sustainability depend on the capacity, cohesion, and resources of rural communities.

Thus, participation as a policy logic in PAMSIMAS should be understood as both enabling and disciplining. It enables communities to become visible actors in rural water governance, but it also disciplines participation into standardized stages, formal institutions, contribution rules, and maintenance obligations. This duality is what gives the program its analytical significance. PAMSIMAS demonstrates that participatory rural water policy is neither purely bottom-up nor merely technocratic. It is a hybrid policy design in which community empowerment is produced through state-defined governance mechanisms, and where the promise of local ownership must be assessed alongside the risks of administrative burden, uneven capacity, and responsibility transfer.

Institutional Architecture of Local Water Governance

The institutional architecture of PAMSIMAS reveals that participation is not left to emerge organically from village society. It is deliberately organized through a multilevel governance structure that connects national policy authority, subnational coordination, village-level mediation, community mobilization, technical facilitation, and local water management institutions (Nugroho et al., 2024). This architecture matters because it shows that participation in rural water governance is not merely a social process, but an institutional arrangement designed to make rural service delivery operational at scale. PAMSIMAS formally aims to increase community access to sustainable drinking water services through a community-based approach, while the World Bank describes the program as expanding a community-driven model through direct grants, technical assistance, community planning, procurement, management, and monitoring.

Figure 1. Institutional Architecture of Participatory Rural Water Governance in PAMSIMAS



The figure illustrates a layered institutional structure in which the national government defines the policy framework, regulatory direction, and funding architecture, while provincial and district governments provide coordination and implementation support. Village governments occupy a strategic intermediary position because they translate externally designed program rules into locally executable arrangements (Wijayanti et al., 2021). Facilitators and communities then become the operational actors through which participation is activated, while KPSPAMS functions as the local institution responsible for operation and maintenance. The final output of this structure is not only rural water and sanitation access, but also an ongoing governance cycle in which service performance generates feedback for village-level coordination and community management.

Critically, this architecture demonstrates that PAMSIMAS does not decentralize water governance in a simple or purely bottom-up sense. Rather, it creates a structured chain of delegated responsibility. The national level retains strong influence through program design, funding rules, technical standards, and monitoring requirements (Syah et al., 2026). Subnational governments support coordination, but the practical burden of making the system work is gradually transferred downward to village governments, facilitators, community groups, and KPSPAMS. This layered design enables implementation across thousands of villages, but it also means that “community-based governance” is shaped by a predesigned institutional script. Participation is therefore less a free civic space than a governed process organized through formal roles, procedural stages, and accountability expectations.

The position of the village government is especially important. In the institutional architecture of PAMSIMAS, the village government is not merely an administrative backdrop; it acts as a mediator between state policy and local society. It coordinates community involvement, supports local implementation, and helps integrate rural water services into village governance structures (Komala et al., 2020). This role is significant because the original research focus places PAMSIMAS within the broader dynamics of village governance and public service delivery. Yet this intermediary role also creates a governance tension. Village governments are expected to enable community participation, but they also operate within administrative expectations set by

higher-level authorities. As a result, they may become both facilitators of local voice and transmitters of state-designed program requirements.

Facilitators occupy another critical position in this architecture. They are often framed as technical and social support actors who help communities prepare plans, understand procedures, develop capacity, and implement program activities. However, their role should not be seen as neutral (Sari & Toyfur, 2020). Facilitators translate policy language into local action, and in doing so they influence what forms of participation are considered acceptable, feasible, and compliant with program rules. The World Bank's project documentation emphasizes community facilitation, local institutional development, community action planning, technical training, and monitoring systems as central features of the program model. This suggests that facilitation is not merely assistance; it is a governance technology that aligns community participation with policy design.

The community, meanwhile, is positioned as both beneficiary and co-producer. This dual position is one of the most consequential elements of PAMSIMAS. Communities are not only expected to receive improved water and sanitation services; they are also expected to participate, contribute, monitor, and maintain (Azmi, 2024). Such a design can strengthen local ownership and produce a closer relationship between users and service systems. However, it also blurs the boundary between empowerment and responsabilization. When participation is tied to contribution, maintenance, and long-term sustainability, communities become responsible for sustaining services whose institutional and technical parameters are largely defined outside the community itself.

KPSPAMS is the clearest institutional expression of this shift. It converts community participation into a formalized management structure responsible for operation and maintenance. This is analytically significant because it shows how participation is stabilized through institutionalization (Sufriadi, 2021). Without such a body, community involvement may remain episodic and project-based. With such a body, participation becomes administratively durable, but also more demanding. KPSPAMS must manage technical operation, user relations, fee collection, maintenance, and service continuity. The risk is that sustainability becomes highly dependent on the capacity of local institutions that may not always possess adequate financial, technical, or political support.

This institutional architecture also creates an accountability problem. In principle, participatory rural water governance should strengthen downward accountability because service users are closer to decision-making and management. In practice, however, accountability may become split between upward compliance and downward responsiveness (Vitri & Herman, 2019). KPSPAMS and village actors may need to satisfy program reporting requirements, technical rules, and administrative expectations while also responding to community needs, complaints, and payment capacities. The presence of monitoring systems and complaint mechanisms can improve transparency, but they do not automatically resolve power asymmetries between policy designers, local administrators, and ordinary users.

The architecture shown in Figure 1 should therefore be read as both enabling and constraining. It enables rural water governance by connecting multiple levels of authority, resources, technical support, community participation, and local management. It constrains participation by embedding it within a predefined institutional order (Raharini & Frinaldi, 2024). This is the central policy design insight of this subsection: PAMSIMAS governs rural water not simply by inviting communities to participate, but by arranging institutions so that participation becomes a functional component of service delivery. In this sense, participation is not outside the state; it is organized through the state's programmatic architecture.

The broader implication is that PAMSIMAS represents a hybrid model of rural water governance. It is neither a conventional state-provided service nor a fully autonomous

community initiative. It is a policy design that distributes tasks across state and community actors while relying on village institutions to hold the arrangement together (Irviani et al., 2018). This hybrid model is potentially powerful because it recognizes the limits of centralized infrastructure provision in rural Indonesia. Yet it is also politically sensitive because it can transfer operational risks downward while leaving strategic authority upward. A Q1-level reading of this architecture must therefore avoid celebrating participation as inherently empowering and instead ask how institutional design shapes who decides, who contributes, who manages, who is accountable, and who carries the long-term risks of rural water service sustainability.

Shared Responsibility and Governance Consequences

The most consequential feature of PAMSIMAS is not simply that it invites communities to participate, but that it reorganizes rural water governance through a model of shared responsibility. In this model, the state does not fully withdraw from service provision, yet it also does not remain the sole provider of rural water infrastructure (Adi et al., 2025). Instead, responsibility is distributed across national agencies, local governments, village governments, facilitators, community groups, and KPSPAMS. This arrangement is institutionally attractive because it allows rural water services to be expanded across diverse village contexts, but it also creates a deeper governance question: when sustainability depends on community contribution and local management, participation becomes both a pathway to empowerment and a mechanism for transferring operational risk downward. The distributive effects of this transfer are unlikely to be uniform, because low-income households, women, persons with disabilities, geographically isolated residents, and other marginalized groups often possess fewer financial, social, and institutional resources with which to absorb additional service responsibilities.

PAMSIMAS explicitly links community participation with long-term service continuity. The official program profile requires communities to contribute at least 8 percent of the Community Work Plan budget in cash, labor, or materials, provide land for water infrastructure, operate and maintain the facilities, and follow all program stages according to technical guidelines (Ikhsan et al., 2024). It also requires village governments to receive the infrastructure as village assets, allocate budget for operation and maintenance, support management, and expand household connections. These design features show that shared responsibility is not an informal outcome of implementation; it is built into the program architecture as a condition for making rural water services sustainable. Future PAMSIMAS regulations should therefore distinguish between participation that strengthens collective ownership and participation that imposes disproportionate obligations on groups with limited capacity to contribute. Such differentiation should be incorporated directly into contribution rules, tariff-setting procedures, village eligibility criteria, and post-construction support provisions rather than being left to local discretion alone.

Table 2. Governance Consequences of Shared Responsibility in PAMSIMAS

Governance Dimension	Positive Consequence	Critical Risk	Policy Implication
Local ownership	Strengthens community commitment to service continuity.	Ownership may become a burden when local capacity is weak.	Future regulations should establish minimum technical and financial support standards before responsibility is transferred to local institutions.
Community contribution	Builds collective investment and program commitment.	Poor households may carry unequal financial or labor burdens.	Contribution rules should include exemptions, subsidies, flexible payment arrangements, and explicit affordability safeguards.

Local management	Enables closer operation, maintenance, and user responsiveness.	KPSPAMS may face technical, financial, and administrative constraints.	Regulations should require continuous capacity-building, periodic institutional assessment, and access to district-level technical assistance.
Village governance	Integrates water services into local public service structures.	Village elites may dominate decision-making and resource allocation.	Future guidelines should mandate transparent selection procedures and meaningful representation of women, poor households, persons with disabilities, and other underrepresented groups.
Service sustainability	Encourages maintenance beyond the project cycle.	Sustainability may depend too heavily on community resources.	Post-construction state support should be regulated as a continuing obligation rather than treated as discretionary assistance.
Accountability	Brings service management closer to users.	Accountability may split between upward reporting and downward responsiveness.	PAMSIMAS regulations should require accessible grievance mechanisms, public disclosure of tariffs and expenditures, and equity-sensitive performance indicators.

Source: Author's analysis based on PAMSIMAS official program documents and World Bank program reports, 2019–2025

The table 2 shows that shared responsibility produces a double-edged governance effect. On one side, it can strengthen local ownership because communities are not treated merely as beneficiaries of a completed project. They become actors who contribute, manage, monitor, and sustain the service system (Daniel et al., 2023). This design can increase local commitment, reduce dependency on direct state provision, and make rural water services more responsive to local needs. On the other side, the same design can convert participation into responsibility transfer when communities are expected to maintain infrastructure without sufficient technical, financial, or institutional support. The problem is not participation itself, but the possibility that participation becomes a substitute for sustained public responsibility. Regulatory reform must consequently focus not only on expanding participation, but also on determining which responsibilities can reasonably be devolved, which groups require protection, and which obligations must remain with the state.

This tension is particularly visible in the role of community contribution. In policy language, contribution is often justified as a way to create ownership and commitment. In governance terms, however, contribution also functions as a cost-sharing instrument. It makes the community financially and materially invested in the program, but it can also reproduce inequality when poorer households have less capacity to contribute cash, labor, or materials (Setiawan et al., 2025). A contribution requirement may appear neutral at the level of policy design, yet its social consequences are uneven because rural communities are not internally homogeneous. A critical policy design analysis must therefore ask not only whether communities contribute, but who contributes, under what conditions, and with what distributional consequences. Future PAMSIMAS regulations should operationalize this principle through mandatory affordability assessments conducted before contribution levels and user tariffs are approved. Households identified as poor or vulnerable should be eligible for contribution waivers, subsidized connections, cross-subsidized tariffs, or alternative forms of participation that do not compromise access to essential services.

KPSPAMS represents another important site of governance consequence. As a local water management institution, KPSPAMS can make rural water services more locally responsive because it is closer to users than higher-level bureaucratic agencies. Yet this proximity does not automatically guarantee institutional strength (Marsono & Nirwisaya, 2021). Operation and maintenance require technical skill, financial management, tariff collection, user trust, conflict resolution, and administrative accountability. If KPSPAMS is expected to carry these tasks without adequate support, the institution may become a fragile local substitute for a stronger public service system. In this sense, institutionalization is not the same as institutional capacity. A policy may successfully create a local body, but the existence of that body does not ensure that it can sustain complex service responsibilities over time.

The village government also occupies an ambivalent position in the shared responsibility model. Its involvement is crucial because water services need to be connected to village planning, budgeting, asset management, and local accountability. However, village-level integration can also expose the program to local power asymmetries (Nugraha et al., 2024). When village governments mediate access, resources, and institutional support, participatory governance may become vulnerable to elite influence, selective inclusion, or weak transparency. The challenge is therefore not simply to involve the village government, but to ensure that village-level authority strengthens public accountability rather than narrowing participation to administratively recognized actors. This point is important because the original study positions PAMSIMAS within the broader dynamics of village governance and public service delivery.

The accountability consequences of shared responsibility are equally complex. Participatory governance is often assumed to improve accountability because users are closer to service managers. In practice, PAMSIMAS creates a layered accountability structure in which local actors must respond both upward and downward. Upward accountability requires compliance with program procedures, technical standards, reporting systems, and administrative rules (Negara & Suratmanto, 2026). Downward accountability requires responsiveness to users, fair tariff management, service reliability, and transparent decision-making. These two accountability directions do not always align. A local institution may satisfy reporting requirements while still failing to respond effectively to everyday user complaints. Conversely, it may be responsive to users but struggle to meet formal administrative standards.

This is why the governance consequences of shared responsibility should not be evaluated only through service outputs. PAMSIMAS has achieved large-scale results, including improved access to water and sanitation across tens of thousands of villages and millions of beneficiaries (Budiman et al., 2024). By December 2021, the program had reached 35,443 villages across 33 provinces, benefited 24.4 million people with improved water supply, and supported 16.4 million people with access to sanitation facilities. These outcomes demonstrate the practical value of a community-based delivery model at scale. However, scale should not be mistaken for unproblematic governance quality (Wibowo et al., 2024). The deeper question is whether the institutional arrangements that enable rapid expansion also create durable, inclusive, and accountable rural water governance.

The critical contribution of this analysis is to show that shared responsibility is not inherently progressive. It can be empowering when it expands local agency, strengthens user control, and embeds services within village institutions (Karmilah & Madrah, 2024). It can also be disciplinary when it makes communities responsible for maintaining systems without equal control over financing, technical standards, and long-term policy support. This duality is central to understanding PAMSIMAS as a policy design. The program does not simply decentralize implementation; it redistributes responsibility across levels of governance. Whether this redistribution becomes empowerment or burden depends on the balance between community obligation and state support (Kasri et al., 2017).

A stronger policy design would therefore treat shared responsibility as a negotiated governance arrangement, not as a one-way transfer of duties to communities. Community participation should be accompanied by affordability protections, technical backstopping, transparent asset management, inclusive decision-making, and long-term institutional support (Abidin et al., 2023). Village governments and KPSPAMS should not be expected to carry sustainability alone, especially in villages with limited fiscal resources, weak technical capacity, or socially unequal participation (Daniel et al., 2021). If participation is to function as a governance mechanism rather than a tool of administrative responsabilization, the state must remain visible after infrastructure handover through monitoring, capacity-building, financing support, and accountability mechanisms.

In theoretical terms, PAMSIMAS illustrates the hybrid character of contemporary rural public service governance. It is neither a purely state-led program nor a purely community-driven initiative. It is a policy design that uses participation to connect infrastructure provision, village governance, local management, and service sustainability. This hybrid model is valuable because it recognizes that rural water services cannot be sustained by central infrastructure delivery alone. Yet it also demands critical scrutiny because hybrid governance can blur responsibility, making it difficult to determine who is ultimately accountable when services fail. The central governance consequence is therefore clear: participation can improve rural water governance only when shared responsibility does not become displaced responsibility.

Limitations

The analysis is limited by its reliance on documentary sources, including policy regulations, program guidelines, technical manuals, institutional reports, and relevant academic literature. Such materials are well suited to examining the formal architecture of policy design, but they primarily reflect officially prescribed roles, procedures, and objectives. They cannot fully capture how participatory arrangements are interpreted, negotiated, or contested during implementation at the village level. Consequently, the findings clarify how participation is institutionally designed within PAMSIMAS, rather than determining whether these arrangements are consistently enacted across diverse rural contexts.

A further limitation concerns the absence of direct evidence from communities, village governments, facilitators, and KPSPAMS. The distributive risks identified—particularly the possibility of disproportionate financial, labor, and managerial burdens on low-income households, women, persons with disabilities, and geographically isolated residents—are derived from critical policy analysis rather than from first-hand accounts of affected groups. The analysis also does not compare PAMSIMAS systematically across provinces, village types, or implementation periods, thereby limiting claims about variation in local institutional capacity and regulatory enforcement. Future research should combine policy design analysis with comparative case studies, interviews, participatory observation, and disaggregated service data to assess how formal rules operate in practice, how burdens and benefits are distributed among social groups, and whether proposed equity safeguards effectively reduce exclusion and unfair responsibility transfer.

CONCLUSION

Participation in PAMSIMAS emerges as a central policy design mechanism for governing rural water services rather than a merely procedural requirement or normative democratic ideal. The program translates participation into a structured governance logic that links community involvement, local ownership, shared contribution, village-level coordination, institutionalized management, and long-term service sustainability. Through this design, rural communities are positioned not only as beneficiaries of water and sanitation services, but also as co-producers, contributors, managers, and guardians of infrastructure continuity. However, participation is not

an automatically emancipatory practice. It is shaped through state-defined rules, institutional templates, technical guidelines, funding mechanisms, and accountability expectations that determine how communities may participate, what responsibilities they must carry, and how local institutions are expected to sustain services after project completion.

The main analytical contribution lies in reframing PAMSIMAS as a hybrid governance design in which rural water provision is organized through shared responsibility between state institutions and community actors. Such a model offers important policy value because it responds to the limits of centralized infrastructure delivery and embeds service management closer to rural users. Yet it also carries governance risks when community participation becomes a substitute for sustained state support, especially in villages with limited financial, technical, or institutional capacity. Effective participatory rural water governance therefore requires more than community mobilization; it requires durable public commitment, inclusive decision-making, affordability safeguards, continuous technical assistance, and clear accountability mechanisms. Participation can strengthen rural water governance only when shared responsibility does not become displaced responsibility.

Author Contributions

First Author: Conceptualization, methodology, writing-original draft, software, validation. Second Author: Data curation, resources, draft preparation. Third Author: Formal analysis, validation, Fourth Author: Software, visualization. Fifth Author: Validation, writing-review & editing. All authors discussed the results and contributed to the final manuscript.

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