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Governance functions in subak empowerment: a documentary case study

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ABSTRACT

This study examines village governance functions in Subak empowerment through a documentary qualitative case study of Mengwitani, Bali. The unit of analysis is each village program or decision concerning irrigation infrastructure, institutional participation, access to agricultural support, cultural continuity, and operational risk. The purposively selected corpus comprises the 2025 Mengwitani Village Profile, relevant legal instruments, and issue-based records from preliminary institutional notes. The available materials do not contain a complete interview register, so participant counts, saturation, and interview-based generalization are not claimed. Data were analyzed through directed qualitative content analysis using four operational categories: regulator, dynamizer, facilitator, and catalyst. Evidence was coded manually in a source matrix, compared across source types, and checked through an audit trail, negative-case review, and explicit separation of findings from recommendations. Facilitation is the most clearly documented function, reflected in farm-road improvement, irrigation retaining-wall reinforcement, granary rehabilitation, customary-facility support, and access to regency input programs. Representative participation appears through Pekaseh proposals, while structured training, a specific village regulation on land conversion, and a formal collaborative platform remain incomplete. The analysis identifies an emergent configuration that is infrastructure-centered, proposal-mediated, culturally embedded, and risk-conscious. This configuration is descriptive and context-specific, not a causal or generalizable model. Validation requires completed community interviews, longitudinal land-use data, and outcome indicators.



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Introduction

Subak is a Balinese social-ecological institution that coordinates irrigation, collective maintenance, farmer decision-making, customary rules, and ritual obligations. Empirical studies show that its endurance depends on the interaction of physical water systems, local leadership, shared norms, and adaptive coordination rather than on irrigation technology alone (Roth, 2014; Lorenzen, 2015; Okura et al., 2022; Geria et al., 2023). Bali Provincial Regulation No. 9 of 2012 formally recognizes Subak as a customary organization for agricultural water management, while recent research links its built environment and collective practices with long-term water stewardship (Pemerintah Provinsi Bali, 2012; Geria et al., 2023).

This institutional role faces growing pressure in peri-urban Bali. Land conversion, rising property values, tourism development, and competing infrastructure needs can reduce the agricultural space on which Subak depends (Wardana, 2020; Widhianthini et al., 2016; Hamid et al., 2026). A recent study reports that rice-field area in Badung Regency declined from 9,072 hectares in 2019 to about 8,024 hectares in 2022. That

regional figure provides context, but it cannot be treated as a time series for Mengwitani because the available village profile contains only a 2025 snapshot (Suwintari & Prasetya, 2025).

Village government occupies an important but bounded position within this setting. Law No. 3 of 2024 assigns villages responsibilities for governance, development, community empowerment, and socio-cultural affairs, yet land-use control, agricultural services, and infrastructure funding remain distributed across several levels of government (Republik Indonesia, 2024). Collaborative-governance research therefore directs attention to institutional arrangements, shared decision processes, and coordination across public and community actors rather than to a single authority acting alone (Ansell & Gash, 2008; Emerson et al., 2012).

This study defines Subak empowerment as observable village support for four outcome domains: physical access and irrigation reliability, participation in planning, access to services or production resources, and continuity of institutional and cultural functions. These domains reflect the view that community-based resource governance depends on fit among infrastructure, rules, collective action, and locally legitimate institutions (Ostrom, 2009; Cox et al., 2010; McGinnis & Ostrom, 2014). The definition is operational and evidence-bounded. It does not assume that every program produces a verified causal effect.

Four governance functions are used as a directed coding frame: regulator, dynamizer, facilitator, and catalyst. The categories recur in empirical studies of village government and farmer empowerment, where regulation concerns policy direction and accountability, dynamization concerns participation and learning, facilitation concerns infrastructure and service access, and catalysis concerns brokerage, partnerships, and innovation (Al Azis, 2022; Fitriyani et al., 2024; Ramli et al., 2024; Apriana & Sukmana, 2024). They are treated here as operational categories, not as a complete theory. Collaborative governance and social-ecological institutional analysis provide the broader theoretical basis for examining how the functions interact.

Prior research indicates that these functions often develop unevenly. Infrastructure support may be visible while training, monitoring, participation, or inter-organizational coordination remains limited (Al Azis, 2022; Fitriyani et al., 2024; Ramli et al., 2024). Studies of community participation also show that formal access to planning does not automatically ensure inclusive influence, while collaborative arrangements require clear roles, repeated interaction, and locally controlled benefits (Prasetyo & Firdausi, 2023; Hu et al., 2022; Reed et al., 2021). These findings support an analysis that separates documented activity from unverified outcome claims.

Mengwitani offers a relevant single case because agricultural land, customary institutions, and peri-urban development coexist within one village administration. The 2025 Village Profile records an area of 439.04 hectares, including 150.38 hectares of rice fields, 230.34 hectares of dry land, and 58.32 hectares of public facilities. It also records 8,438 residents in 2,038 households, two customary villages, 19 customary hamlets, and 13 administrative hamlets (Pemerintah Desa Mengwitani, 2025). These figures establish the case context but do not demonstrate land-conversion trends or institutional effectiveness.

The available institutional records identify several village actions and decisions related to Subak: farm-road improvement, reinforcement of irrigation-channel retaining walls, granary rehabilitation, support for customary ceremonial facilities, use of Pekaseh proposals in assistance planning, reliance on regency programs for seeds and fertilizer, and a decision not to purchase agricultural machinery because of operating and maintenance risks. The records also state that a specific village regulation on agricultural land conversion and a structured training program had not been implemented when the materials were compiled.

Existing Subak scholarship has examined irrigation coordination, institutional adaptation, cultural landscapes, land conversion, and nature-based water management (Roth, 2014; Lorenzen, 2015; Wardana, 2020; Okura et al., 2022; Yekti et al., 2026). Less attention has been given to how village-level governance functions are assembled across infrastructure, representative planning, cultural support, risk management, and multilevel coordination in a peri-urban case. This study addresses that gap through a transparent documentary analysis rather than an impact evaluation.

The study contributes in three ways. First, it specifies the evidence base and the limits of inference in a documentary qualitative case. Second, it links the four operational governance functions with collaborative-governance and social-ecological institutional theory. Third, it identifies an emergent configuration of village action while clearly distinguishing documented findings from recommendations. The unit of analysis is the village program or decision concerning Subak empowerment.

The analysis addresses three questions: (1) What regulator, dynamizer, facilitator, and catalyst functions are evidenced in the available village records? (2) How do these functions relate to infrastructure, participation, resource access, cultural continuity, and operational risk? (3) What strengthening priorities follow from the documented evidence without extending claims beyond the case?

Method

This research used a documentary qualitative case-study design. Document analysis is appropriate when institutional decisions, program records, legal mandates, and contextual data must be examined systematically and interpreted within their production context (Bowen, 2009). Mengwitani was selected purposively as a bounded case where Subak, village government, customary organization, and peri-urban pressure coexist. The unit of analysis was each documented village program, decision, or coordination mechanism concerning Subak.

The purposively selected corpus comprised the 2025 Mengwitani Village Profile, Bali Provincial Regulation No. 9 of 2012, Law No. 3 of 2024, and issue-based records from preliminary institutional notes. The notes covered seven evidence clusters: land-conversion policy status, farm-road improvement, irrigation retaining-wall reinforcement, granary rehabilitation, machinery procurement considerations, regency seed and fertilizer support, and the use of Pekaseh proposals. Peer-reviewed studies were used for theoretical and comparative interpretation, not as primary case data.

Materials were included when they were identifiable, directly related to the unit of analysis, and contained factual information about context, program status, decision rationale, or institutional relationships. Duplicate narrative summaries, unattributed personal statements, and recommendations presented as if they were completed activities were excluded from the findings. The available materials did not contain a complete interview register, participant count, interview duration, recording protocol, or finalized community transcripts. Consequently, this article makes no claim about sample saturation, participant representativeness, or completed interview-based fieldwork.

Data were analyzed through directed qualitative content analysis (Hsieh & Shannon, 2005). A coding dictionary defined regulator as policy direction, rules, standards, and accountability; dynamizer as participation, learning, motivation, and collective mobilization; facilitator as infrastructure, service, information, and resource access; and catalyst as brokerage, partnership, innovation, and coordination across levels. A second coding layer classified the evidence by physical access, irrigation reliability, participation, resource access, cultural continuity, and operational risk.

Coding was conducted manually in a source matrix. First, factual statements were extracted with their source and status. Second, each statement was coded against one or more governance functions and outcome domains. Third, evidence was compared across source types and checked for confirming, contradictory, absent, or recommendation-only information. Fourth, the coded pattern was interpreted against collaborative-governance, critical-institutionalist, and social-ecological-system literature. This procedure created an audit trail from source statement to interpretation.

Trustworthiness was supported through source triangulation, explicit inclusion criteria, negative-case checking, and separation of evidence from recommendation (Bowen, 2009; Nowell et al., 2017). No direct quotation was attributed to an unidentified person, and no causal effect was inferred from documentary descriptions. A second independent coder and member-checking record were not documented in the supplied materials, so inter-coder reliability and member validation are not claimed. These boundaries are reported as methodological limitations rather than filled with invented detail.

Table 1. Research Design and Evidence Matrix

Corpus component	Selection and scope	Analytical use and credibility check
2025 Village Profile	Official 2025 cross-sectional data on area, land use, population, households, and administrative-customary structure	Establishes case context; treated as a snapshot, not a trend or performance measure
Legal instruments	Bali Provincial Regulation No. 9 of 2012 and Law No. 3 of 2024	Defines Subak recognition and village mandate; prevents claims beyond formal authority
Preliminary institutional notes	Seven issue clusters directly related to village programs, decisions, proposal	Primary case evidence; unattributed quotations and unsupported person-level claims excluded

Corpus component	Selection and scope	Analytical use and credibility check
Manual source matrix	mechanisms, policy status, and regency support	Creates an audit trail and enables confirming, contradictory, absent, and recommendation-only checks
	Factual statement, source, status, governance function, outcome domain, and evidence gap	
Peer-reviewed literature	Methods, collaborative governance, social-ecological systems, Subak, land conversion, and village empowerment	Supports theoretical comparison; not treated as primary Mengwitani data

Source: Compiled from the analyzed corpus and methodological protocol, 2026.

Results and Discussions

Agrarian and institutional context

The 2025 profile records 150.38 hectares of rice fields, equal to 34.25 percent of Mengwitani's 439.04-hectare area. This proportion confirms that rice agriculture remains spatially present within the village, but it does not by itself establish that Mengwitani is more agrarian, more resilient, or more threatened than other villages. The same profile records 230.34 hectares of dry land and 58.32 hectares of public facilities, showing that village planning operates across competing land uses (Pemerintah Desa Mengwitani, 2025).

The population of 8,438 people in 2,038 households indicates substantial demand for housing, services, mobility, and employment within a compact 4.39-square-kilometre territory. Regional research from Badung documents continuing conversion pressure, but the absence of a Mengwitani land-use time series prevents calculation of a local conversion rate or trend (Suwintari & Prasetya, 2025). The defensible finding is therefore contextual: agricultural land and development demand coexist, and village decisions concerning access, irrigation, and planning occur within that tension.

Mengwitani also contains two customary villages, 19 customary hamlets, and 13 administrative hamlets. This institutional density creates several potential channels for coordination, although the documents do not measure their effectiveness. Research on Subak shows that water allocation, collective maintenance, ritual practice, and local authority are interdependent (Roth, 2014; Lorenzen, 2015; Okura et al., 2022; Geria et al., 2023). The village support portfolio can therefore be examined across physical, organizational, and cultural functions without assuming that the interventions have already secured long-term sustainability.

Table 2. Village Context and Interpretive Boundaries

Indicator	Recorded condition	Interpretive boundary
Village area	439.04 ha / 4.39 km ²	Defines the territorial case; does not indicate governance performance
Rice-field area	150.38 ha / 34.25%	Confirms a substantial current agricultural presence; no local time-series trend is available
Dry land	230.34 ha / 52.46%	Shows competing and diverse land uses; does not identify conversion direction
Public facilities	58.32 ha / 13.28%	Shows space allocated to services and infrastructure; no causal relation to rice-field change is tested
Population	8,438 people / 2,038 households	Indicates development demand; does not measure pressure on specific parcels
Institutional structure	2 customary villages, 19 customary hamlets, 13 administrative hamlets	Identifies possible coordination channels; effectiveness and inclusion are not measured

Source: Pemerintah Desa Mengwitani (2025), interpreted within the limits of a cross-sectional profile.

Regulator function: agenda recognition without completed institutionalization

The documentary evidence shows that Mengwitani had not enacted a specific village regulation on agricultural land conversion. The issue was recorded as a planning concern, but agenda recognition is not equivalent to a binding rule, implementation mechanism, or monitored outcome. The regulator function is therefore present at an early stage rather than fully established.

This finding must be read within a multilevel legal setting. Village government can integrate agricultural priorities into village plans, maintain local land and irrigation records, define proposal procedures, and communicate recommendations, while broader spatial planning and permitting involve higher levels of government (Republik Indonesia, 2024). Studies of Balinese land governance show that conversion control is shaped by overlapping state, customary, household, and market interests, which makes institutional

coordination and locally credible data essential (Widhianthini et al., 2016; Wardana, 2020; Hamid et al., 2026).

The completed road, irrigation, and granary programs indicate that agriculture has received budgetary and planning attention. They should be interpreted as practical policy signals, not as substitutes for formal land-protection instruments. The records do not show a written maintenance standard, monitoring indicator, land-conversion database, or enforcement process. These absences define the next regulatory tasks and limit any claim that village policy has protected agricultural land.

Comparative village studies similarly report that government roles often remain strongest in program delivery while policy continuity, monitoring, and farmer involvement vary (Al Azis, 2022; Fitriyani et al., 2024; Ramli et al., 2024; Apriana & Sukmana, 2024). Mengwitani follows this broader pattern. A feasible regulatory step would be a concise village instrument that clarifies data updating, proposal review, infrastructure maintenance, Subak representation, and annual evaluation without claiming authority beyond the village mandate.

Dynamizer function: representative participation with incomplete inclusion and learning

The use of proposals from the Pekaseh or Subak management provides documentary evidence of a representative route into village planning. This mechanism can connect local knowledge about damaged channels, access constraints, shared facilities, and ceremonial needs with formal budgeting. It is consistent with collaborative-governance principles that value recognized representation and structured interaction between public and community institutions (Ansell & Gash, 2008; Emerson et al., 2012).

The evidence does not establish that all member groups influence proposal priorities equally. No finalized transcripts were available from senior farmers, irrigation users, women in farming households, young farmers, tenant farmers, or farm laborers. The analysis therefore treats Pekaseh proposals as evidence of institutional participation, not proof of broad inclusion. Participation research warns that access through representatives must still be checked for voice, benefit distribution, and responsiveness (Prasetyo & Firdauzi, 2023; Reed et al., 2021).

The records also state that structured village-led training or mentoring had not been implemented. This limits the dynamizer function because no documentary evidence demonstrates systematic learning, skill development, or follow-up. The granary, Subak leadership, and links with agricultural extension services provide potential infrastructure for learning, but they remain enabling conditions rather than completed capacity-building results.

This partial pattern is consistent with studies that identify communication, mentoring, and continuity as recurring weaknesses in farmer-group empowerment (Al Azis, 2022; Fitriyani et al., 2024; Ramli et al., 2024). Rural-development research also shows that learning, innovation, and community ownership must be connected to local institutions rather than delivered as isolated activities (Del Arco et al., 2021; Hu et al., 2022). Applied sessions on irrigation maintenance, organizational administration, proposal preparation, and market access are therefore recommendations, not findings.

Young-farmer regeneration is likewise an evidence gap. The documents contain no age-disaggregated participation data or assessment of young people's intentions. Future validation should examine whether younger members participate in mapping, documentation, production, marketing, and decision-making. Such inquiry would test, rather than assume, whether new skills can reinforce intergenerational continuity.

Facilitator function: the most clearly documented village function

Facilitation is the most strongly evidenced function because the corpus repeatedly identifies concrete infrastructure, facility, and service-access decisions. The documented items are farm-road improvement, irrigation retaining-wall reinforcement, granary rehabilitation, support for customary facilities, consideration of machinery operating risks, and coordination with regency input programs. This ranking concerns the quantity and directness of documentary evidence, not measured program impact.

The institutional notes report that motorcycles could reach production areas after farm-road improvement, whereas harvests had previously been carried to a main road. This supports a bounded interpretation that physical access changed. The records do not provide measured travel time, cost, harvest damage, user counts, or before-and-after survey data. Reduced burden and faster transport are plausible mechanisms that require outcome measurement before they can be stated as quantified benefits.

Reinforcement of irrigation-channel retaining walls was undertaken in response to leakage and damage in earthen sections, including damage attributed to crabs. The action directly addresses a documented

infrastructure problem. However, the corpus contains no discharge measurements, distribution schedule, crop-yield data, or conflict records. The defensible result is that the village supported irrigation reliability through structural repair, not that water performance or production increased.

Granary rehabilitation and assistance for customary ceremonial facilities extend facilitation beyond production infrastructure. The notes describe the granary as a place for meetings, ceremonies, and rest. This multifunctional use aligns with studies showing that Subak depends on physical spaces, collective routines, and cultural legitimacy alongside water management (Roth, 2014; Geria et al., 2023). Cultural support can sustain institutional life, but the present documents do not measure participation frequency, user satisfaction, or distribution of benefits.

The decision not to procure agricultural machinery was linked to fuel, maintenance, storage, operator availability, and utilization concerns. This is best interpreted as documented risk screening rather than proof of budget efficiency. Public-sector digitalization research similarly shows that technology and equipment create value only when work processes, skills, and recurring resources support continued use (Andersson et al., 2022). The finding challenges asset-count approaches that equate procurement with empowerment.

Non-procurement does not establish that mechanization is unnecessary. Rental, service contracts, intergroup sharing, or access through regency programs may be suitable when demand and operating capacity are verified. These options remain recommendations. Their feasibility should be assessed through utilization forecasts, service costs, operator availability, and member demand.

Seeds and fertilizer were reported as primarily supported through regency programs. This arrangement indicates an emerging division of functions in which the village supports local infrastructure and access while the regency manages sectoral inputs. Collaborative-governance theory recognizes such interdependence, but effective complementarity requires clear information, beneficiary verification, timing, and accountability (Emerson et al., 2012). The available records do not provide distribution coverage or timeliness data.

Taken together, the facilitator evidence is concrete but mostly output-oriented. It documents what was built, repaired, supported, considered, or connected. It does not establish causal effects on income, yield, water equity, land retention, or institutional resilience. Table 3 separates the documentary evidence from the interpretation and the remaining evidence gap.

Table 3. Documentary Evidence, Bounded Interpretation, and Evidence Gaps

Program or decision	Documentary evidence	Bounded interpretation	Evidence gap
Farm-road improvement	Notes report motorcycle access to production areas after improvement	Physical access changed for at least some routes	Travel time, cost, user count, and harvest-loss measures
Irrigation retaining-wall reinforcement	Repair responded to leakage and damage in earthen channel sections	Village supported irrigation reliability through structural work	Discharge, distribution equity, crop output, and conflict data
Granary and customary facilities	Granary used for meetings, ceremonies, and rest; ceremonial facilities received support	Facilitation includes organizational and cultural functions	Use frequency, participant diversity, satisfaction, and benefit distribution
Decision not to procure machinery	Fuel, maintenance, storage, operators, and utilization were recorded as constraints	A risk-screening rationale shaped the decision	Demand forecast, access alternatives, and total service-cost comparison
Seeds and fertilizer from regency programs	Inputs are primarily linked to higher-level sectoral support	Emerging multilevel division of functions	Coverage, timeliness, verification, and accountability records
Pekaseh proposal mechanism	Subak needs enter village planning through recognized leadership	Evidence of representative participation and brokerage	Direct evidence from diverse members and proposal follow-up outcomes

Source: Preliminary institutional notes and cross-source analysis, 2026.

Catalyst function: emerging brokerage without a formal collaborative platform

The catalyst function appears in two documented relationships. First, the Pekaseh translates collective needs into proposals that can enter village planning. Second, the village connects local agricultural needs with regency seed and fertilizer programs. These relationships indicate brokerage across customary, village, and sectoral institutions, although the corpus does not measure the speed, reach, or effectiveness of that brokerage.

No permanent coordination forum, written partnership arrangement, joint work plan, or shared evaluation system was identified. The catalyst function is therefore emerging rather than institutionalized. Collaborative-governance research emphasizes that durable collaboration requires repeated interaction, agreed roles, shared information, and capacity for joint action (Ansell & Gash, 2008; Emerson et al., 2012). Mengwitani has relational starting points, but the documentary record does not show a completed collaborative regime.

Comparative studies support a cautious interpretation. Community empowerment is more durable when communities retain decision authority and benefits, while external actors provide access, knowledge, and coordination rather than displacing local institutions (Hu et al., 2022; Reed et al., 2021). Critical institutionalism also stresses that workable arrangements emerge from local practice and institutional interaction, not from copying a formal model (Cleaver & de Koning, 2015).

For Mengwitani, catalytic development should therefore remain Subak-centered. Potential partners include the PPL, regency agencies, universities, service providers, the village-owned enterprise, and market actors. Their participation should respond to verified needs and preserve Subak authority over water, collective rules, and cultural practices. These are design principles for future collaboration, not evidence that such a network already operates.

The regency input programs show that specialization across levels can occur without reducing the village role. The village can contribute local data, proposal consolidation, beneficiary communication, and monitoring, while sectoral agencies provide technical and procurement capacity. The main evidence gap concerns performance. Future records should show who received support, when it arrived, how needs were verified, and how problems were resolved.

Integrated interpretation: an emergent and context-specific configuration

The coding pattern produced four descriptive characteristics. Village action is infrastructure-centered because physical works dominate the documented portfolio. It is proposal-mediated because the Pekaseh provides a recognized route for expressing needs. It is culturally embedded because the granary and ceremonial facilities support institutional and ritual functions. It is risk-conscious because machinery procurement was screened against operating constraints. These characteristics are an emergent analytical configuration, not a validated governance model.

The configuration is theoretically compatible with critical institutionalism and social-ecological-system analysis, which explain governance through context-specific combinations of actors, rules, infrastructure, resources, and interactions (Cleaver & de Koning, 2015; Ostrom, 2009; McGinnis & Ostrom, 2014). It also complements collaborative-governance theory by showing that village and customary institutions may coordinate through proposals and multilevel links before a formal collaborative forum exists (Ansell & Gash, 2008; Emerson et al., 2012).

The four functions should not be read as separate stages. Infrastructure maintenance requires regulatory clarity, user participation, service access, and technical coordination. Proposal channels become more inclusive when diverse members can verify priorities. Cultural facilities gain governance value when used for deliberation and learning. Regency inputs become more accountable when village data and member feedback inform targeting. The evidence therefore supports interaction among functions, but not a causal sequence.

Across the comparative literature, Subak resilience is linked with adaptive rules, collective coordination, water infrastructure, customary legitimacy, and responses to development pressure (Roth, 2014; Lorenzen, 2015; Wardana, 2020; Okura et al., 2022; Geria et al., 2023; Yekti et al., 2026). Village-empowerment studies emphasize participation, facilitation, policy support, communication, and capacity development (Al Azis, 2022; Fitriyani et al., 2024; Prasetyo & Firdausi, 2023; Ramli et al., 2024; Apriana & Sukmana, 2024). Mengwitani does not replace these frameworks. It illustrates how several elements appear in one documentary case and where evidence remains incomplete.

Evidence-based strengthening priorities

The first priority is evidence and regulatory clarity. The village can update records on rice-field area, irrigation routes, damaged sections, access roads, Subak membership, land-use change, program beneficiaries, and maintenance responsibility. These records can inform annual planning and coordination with the regency. The second priority is inclusive deliberation. Pekaseh proposals can remain central while proposal forms and meetings document whose needs were consulted, who will benefit, and how maintenance will be shared.

The third priority is integrated facilitation. Every physical project should include a maintenance plan, responsible actors, and a small set of outcome indicators. The fourth priority is structured collaboration through periodic village-Subak-PPL-regency meetings with a written follow-up log. The fifth priority is outcome evaluation using feasible measures such as travel time, water-delivery interruptions, facility use, participation, input coverage, youth involvement, and perceived fairness. These measures would convert current output records into stronger evidence.

Digital tools may support this process through simple mapping, photographic documentation, beneficiary lists, and shared action logs. Technology should follow actual work needs and administrative capacity rather than become an additional reporting burden (Andersson et al., 2022). A basic spreadsheet and mapped maintenance register may be more useful than a complex application if the village can update them consistently.

Future fieldwork should complete interviews with diverse Subak members and report the number, selection criteria, interview guide, duration, recording method, consent procedure, analytic saturation logic, and validation process. Community accounts should be compared with documentary records and observable program conditions. This step is necessary to test whether representative proposals reflect member experience and whether the emergent configuration has explanatory value beyond the present corpus.

Table 4. Roadmap for Strengthening Subak Empowerment Governance

Priority	Main action	Existing evidence base	Minimum verification indicator
Evidence and regulatory clarity	Update land, irrigation, access, membership, beneficiary, and maintenance records; define village procedures	2025 profile, infrastructure records, and policy agenda	Dated database, assigned responsibility, and annual review record
Inclusive deliberation	Retain Pekaseh proposals and document consultation with diverse member groups	Recognized proposal route through Subak leadership	Proposal states consulted groups, beneficiaries, objections, and follow-up
Integrated facilitation	Link each physical project with maintenance, learning, service access, and outcome measures	Road, irrigation, granary, and cultural-facility support	Maintenance log plus at least one relevant outcome indicator
Structured collaboration	Hold periodic village-Subak-PPL-regency coordination with written roles and actions	Existing links to Subak and regency input programs	Attendance, responsibility, deadline, and completed follow-up log
Outcome validation	Complete community interviews and track access, water, participation, input, youth, and fairness measures	Documented outputs and identified evidence gaps	Transparent protocol, longitudinal data, and triangulated findings

Source: Authors' evidence-bounded synthesis, 2026.

Theoretical and practical implications

The theoretical implication is modest but specific. Village governance functions can be examined as an uneven configuration rather than rated through a single optimal or non-optimal judgment. In Mengwitani, facilitation is the most documented function, representative dynamization is partial, regulation is not yet institutionalized, and catalysis is emerging. This interpretation follows critical institutionalism and collaborative-governance theory, which expect institutional arrangements to be context-dependent and relational (Cleaver & de Koning, 2015; Emerson et al., 2012).

The case also highlights non-procurement as an analytically relevant decision. The machinery record shows that government support includes screening life-cycle demands and implementation capacity, not only distributing assets. This does not prove that the decision was economically optimal. It identifies a risk-management rationale that should be evaluated against access alternatives, utilization demand, and total service cost.

Practically, Mengwitani can strengthen existing programs without replacing Subak authority. The most immediate actions are to formalize maintenance and proposal procedures, broaden evidence of participation, link facilities with applied learning, document regency-program access, and measure outcomes. These recommendations build directly from documented gaps and avoid assuming that infrastructure outputs alone equal empowerment.

The study has four main limitations. It analyzes one village and cannot support statistical generalization. The primary corpus is documentary and lacks a complete interview register and finalized community transcripts. The village profile provides a cross-sectional land-use snapshot rather than a local trend. Program

outcomes were not measured through before-and-after indicators or a comparison case. The findings therefore support analytic description and proposition development, not causal attribution or claims of institutional effectiveness.

Conclusions

Regarding the first research question, the documents show an uneven set of governance functions. Facilitation is most visible through roads, irrigation retaining walls, the granary, customary facilities, machinery-risk consideration, and access to regency inputs. The dynamizer function appears through Pekaseh proposals but lacks evidence of broad member inclusion and structured learning. The regulator function remains at the agenda stage, and the catalyst function appears through limited brokerage rather than a formal collaborative platform.

Regarding the second research question, the functions relate through a context-specific pattern. Physical works address access and irrigation problems; proposal mechanisms connect Subak leadership with village planning; cultural facilities support institutional continuity; and non-procurement records show attention to operating risk. These links form an infrastructure-centered, proposal-mediated, culturally embedded, and risk-conscious configuration. The configuration is descriptive and emergent. It is not a validated model and does not establish causal effects on welfare, production, land retention, or resilience.

Regarding the third research question, the evidence supports priorities in five areas: updated land and infrastructure data, clear village procedures, inclusive proposal verification, integration of maintenance and learning with physical projects, structured multilevel coordination, and simple outcome evaluation. These priorities respond to documented gaps. Their effectiveness must be tested through implementation records, completed community interviews, and longitudinal indicators.

The contribution of this study lies in methodological transparency and bounded interpretation. It shows how documentary evidence can identify governance functions while preserving the distinction between activity, plausible mechanism, measured outcome, and recommendation. Because the case lacks complete interview data, a local land-use time series, and comparative outcome measures, its conclusions should guide further inquiry rather than be generalized to all Subak or village governments.

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