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Stagnation in Flood Governance Policy: An Analysis of the Draft Regional Regulation on Flood Management in Bontang City

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Abstract

This study examines the interrelation between political dynamics, institutional stagnation, and governance innovation within the formulation and evaluation of local policies, with a specific focus on the Flood Management Draft Regulation. The research aims to explore how political and bureaucratic structures influence policy coherence and the extent to which institutional mechanisms either facilitate or hinder adaptive reform. The analysis highlights that local policy processes are often dominated by political interests that restrict institutional flexibility, leading to procedural formalism and limited innovation. The substantive evaluation of the flood management regulation reveals that despite the inclusion of technical and preventive measures, the lack of interagency coordination and fiscal autonomy undermines policy effectiveness. The implications for local governance emphasize the importance of leadership vision, accountability, and participatory engagement as drivers of institutional transformation. The study employs a qualitative descriptive approach combined with thematic analysis using the Miles and Huberman model, enabling an in-depth exploration of patterns, meanings, and relationships across policy documents, institutional behaviors, and governance practices. The findings suggest that sustainable governance innovation arises from the systemic alignment of political will, institutional learning, and evidence-based policymaking, positioning local governments as adaptive entities capable of addressing environmental and administrative complexities.

Keywords: Governance Innovation, Institutional Stagnation, Policy Reform

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INTRODUCTION

Flood disasters remain one of the most persistent hydrometeorological challenges globally and nationally, posing continuous threats to human security, infrastructure, and socio economic stability. In Indonesia, the magnitude and

recurrence of floods have made them the most dominant form of natural disaster over the past decade. According to the National Disaster Management Agency BNPB, 2024 in research (Chaudhary & Piracha, 2021), 98.48 percent of all disasters that occurred in January 2024 were hydrometeorological in nature, with floods accounting for more than 125 incidents in a single month. This recurring pattern underlines a structural governance problem that extends beyond meteorological factors it reflects deficiencies in regulatory preparedness, institutional coordination, and the political will to enact and implement effective flood management policies (Danhassan et al., 2023; Ibrahim et al., 2023).

Within this national context, Bontang City in East Kalimantan represents a microcosm of Indonesia's broader struggle to address flood management effectively. Once characterized by seasonal flooding, Bontang has transformed into a city facing chronic and structural flood crises. Repeated flood events since 2022 have disrupted livelihoods, damaged infrastructure, and undermined community resilience. Empirical data from 2022 to 2025 demonstrate an upward trend not only in the frequency of floods but also in their spatial coverage and severity. In several areas, water levels reached up to two meters, inundating thousands of households and paralyzing economic activities. The complexity of these disasters stems from multiple, interrelated causes heavy rainfall, overflowing rivers, coastal tidal surges, and the degradation of urban drainage systems due to uncontrolled land conversion (Saad, Ali, Razi, Ramli, et al., 2024). As such, the flooding problem in Bontang is no longer a natural inevitability but a product of human-induced environmental degradation and weak local governance (Connolly, 2022).

Paradoxically, the local government's institutional response to this crisis has been slow and fragmented. Despite the growing urgency, the legislative process designed to produce a specific regional regulation on flood management (Raperda Flood Management) has stagnated. Initiated in 2019 by Commission C of the Bontang Regional People's Representative Council, the draft regulation has been trapped in prolonged discussion without progress toward formal adoption. This stagnation raises fundamental questions about the interaction between politics, administration, and technical policy capacity in local governance under Indonesia's decentralization framework (Nasution, 2017; Ostwald et al., 2016). Rather than representing a procedural delay, the stalemate reflects a deeper governance dilemma the failure to transform public demand for safety and resilience into a coherent regulatory framework (Esposito, 2025; Gonçalves et al., 2025).

At the core of this issue lies a significant regulatory gap. While the executive branch argues that the existing general regulation on disaster management is sufficient to address floods, legislators insist that the absence of a specific and comprehensive regulation on flood management constitutes a legal vacuum. The general regulation focuses primarily on institutional structures rather than operational and preventive measures. It lacks detailed provisions on risk mitigation, community participation, spatial planning, and funding mechanisms (Hung et al., 2016; Oliveira & Hersperger, 2018; Sharma et al., 2022). Consequently, Commission C of the DPRD proposed a new Raperda Flood Management to establish a clearer legal foundation for proactive disaster governance.

The stagnation of this draft regulation has been further exacerbated by budgetary and political disputes. The most contentious issue centers on Commission C's proposal to allocate a minimum of 10 percent of Bontang's regional budget for flood management programs. With a total 2024 budget of IDR 2.6 trillion, this proposal would have dedicated IDR 260 billion substantially higher than the IDR 70 billion allocated in 2023. The executive deemed the proposal fiscally unrealistic, while legislators saw it as a moral necessity to address the city's growing crisis. The delayed completion of Bontang's Master Plan for Flood Management, finalized only in late 2022, was cited as a technical reason to postpone legislative discussions. As a result, the formulation process of the Raperda Flood Management became trapped in bureaucratic inertia and political contestation, rather than being guided by evidence-based policy considerations.

The dual crises confronting Bontang environmental and governance-related illustrate how policy stagnation amplifies disaster vulnerability. Recurrent floods expose not only ecological fragility but also the institutional inability to respond effectively (Amankwaa et al., 2024; Skouloudis et al., 2020; Yu et al., 2017). Academically, this context provides a valuable lens for examining how political interaction, bureaucratic capacity, and policy formulation intersect to shape local disaster governance outcomes (Filippi, 2022; Nohrstedt, 2022). While most existing studies on flood management policy in Indonesia focus on implementation and post-adoption performance, the Bontang case reveals that the formulation phase the "black box" of policy development deserves equal scrutiny. It is within this phase that competing interests, limited institutional capacity, and political fragmentation can prevent an urgent policy from materializing (Adam et al., 2022; Fernández-i-Marín et al., 2025; Trein & Ansell, 2021).

Analyzing the stagnation of Bontang's Raperda Flood Management requires attention to three interconnected dimensions: political, administrative, and substantive. The political dimension involves the dynamics between the legislative and executive branches, whose cooperation or conflict determines the pace of policy progress (Benz & Sonnicksen, 2017; C. Godswalth et al., 2016). The administrative dimension reflects bureaucratic and technical capacity, including the availability of data, expert analysis, and institutional coordination mechanisms necessary for sound policy formulation (T. Christensen et al., 2019; El-Taliawi & Van Der Wal, 2019; Enkler et al., 2017). The substantive dimension concerns the adequacy of the policy content itself whether it sufficiently addresses the city's flood management challenges and aligns with existing legal, spatial, and environmental frameworks (M. Meng et al., 2019, 2020; Ran & Nedovic-Budic, 2016). This study situates itself at the intersection of these three dimensions, aiming to uncover the reasons behind legislative stagnation despite clear empirical urgency.

From a theoretical standpoint, effective flood management requires a multi-layered governance framework that integrates disaster risk reduction, environmental planning (Alexander et al., 2016), and public participation. Indonesia's Law No. 24 of 2007 on Disaster Management establishes a national foundation for such integration, encompassing three main stages: mitigation and prevention, emergency response, and post-disaster recovery. However, without localized regulations that operationalize these stages, implementation remains

fragmented (Shrestha & Haarstad, 2023; Woiceshyn et al., 2017). In Bontang, the absence of a binding local legal instrument has resulted in overlapping authorities, inconsistent budget allocations, and unclear institutional accountability. The proposed Raperda Flood Management was envisioned to consolidate these fragmented efforts into a coherent and enforceable framework (Moreno & Lopez, 2025; Saad, Ali, Razi, & Ramli, 2024). Its stagnation, therefore, represents not only a legislative delay but also a lost opportunity to institutionalize community resilience and adaptive capacity.

Several theoretical frameworks can help explain why such policy processes become paralyzed. Kingdon's Multiple Streams Framework posits that successful policy change occurs when three streams problem, policy, and politics converge in a "policy window." In Bontang's case, the problem stream (recurring floods) and policy stream (draft regulation) are evident, but the political stream remains divided between the legislative push and executive resistance. The Advocacy Coalition Framework (ACF) offers another perspective, highlighting how coalitions of actors with shared beliefs compete to influence policy outcomes (Pierce et al., 2022). Here, a reformist coalition within the DPRD advocating for proactive flood management faces opposition from a cautious executive coalition prioritizing fiscal restraint. Punctuated Equilibrium Theory (PET) suggests that policy systems typically remain stable until disrupted by major external shocks. Despite frequent floods, Bontang's local political environment has yet to experience a decisive shock strong enough to break institutional inertia.

The significance of examining this stagnation extends beyond a single city. It reflects the broader challenges of Indonesia's decentralized governance system, in which local autonomy has granted regional governments the authority to craft their own regulatory frameworks (Prasetyo et al., 2021; Widiarto et al., 2025). While decentralization was intended to enhance responsiveness and innovation, it has also exposed disparities in institutional capacity and political cohesion (Abimbola et al., 2019; Mookherjee, 2015). The Raperda Flood Management case underscores how autonomy can produce fragmentation when coordination mechanisms are weak. It also reveals how local political culture characterized by negotiation, contestation, and at times resistance shapes the outcomes of policy formulation processes.

This research contributes to the discourse on public policy and disaster governance by shifting attention from post-adoption evaluation to pre-adoption analysis. Whereas implementation studies assess how policies perform in practice, the study of policy stagnation unveils the structural and political barriers preventing effective policies from emerging. Practically, understanding these barriers offers guidance for policymakers, legislators, and civil society actors seeking to strengthen local governance. Identifying factors that hinder policy progress ranging from limited technical expertise to conflicting political agendas can inform strategies for more collaborative and adaptive policymaking (Ansell et al., 2017; J. Christensen, 2021; Janssen & Helbig, 2018).

The stagnation of the Raperda Flood Management in Bontang City embodies the intersection of environmental urgency, political negotiation, and bureaucratic constraint. Flood disasters continue to increase in both frequency and intensity,

yet institutional responses remain confined to procedural delays and fragmented coordination (Fayazi et al., 2017; Marks & Lebel, 2016; Nachbagauer, 2022). Overcoming this impasse requires more than technical interventions; it demands political commitment, administrative reform, and a shift toward participatory and anticipatory governance. By analyzing the formulation process and the substantive content of the stalled draft regulation, this study aims to uncover the underlying dynamics that hinder local policy innovation in flood management and propose pathways toward more resilient, transparent, and accountable governance

RESEARCH METHOD

This study employed a qualitative descriptive approach to analyze the formulation process and substantive content of the Flood Management Draft Regional Regulation (Raperda Flood Management) in Bontang City, with particular attention to the stagnation that occurred within Commission C of the Regional People's Representative Council (DPRD). The research was conducted in Bontang, East Kalimantan, as the locus of policy formulation and political negotiation between legislative and executive institutions. Data collection relied on multiple sources, including primary data obtained through semi-structured interviews with key informants such as members of Commission C, officials from the Regional Development Planning Agency (Bappeda), and staff from the Regional Disaster Management Agency (BPBD), as well as secondary data comprising legislative documents, local government reports, master plans, and relevant media coverage. The data were analyzed using Miles and Huberman's interactive model, which involves three concurrent stages: data reduction, data display, and conclusion drawing/verification, ensuring systematic interpretation and validation of findings (Almumtahanah & Sabaryati, 2024; Muhammad et al., 2025). Triangulation of data sources and methods was applied to enhance the credibility and reliability of the results, while ethical considerations such as informed consent and confidentiality of respondents were maintained throughout the research process.

RESULTS AND DISCUSSION

Flood disasters in Indonesia have increasingly evolved from natural occurrences into complex governance challenges that reveal the limitations of local policy-making under decentralization. As one of the recurring hydrometeorological disasters, floods continue to threaten human security, disrupt public infrastructure, and undermine socio-economic stability. Bontang City in East Kalimantan exemplifies this growing crisis, where repeated floods between 2022 and 2025 have caused significant material and social losses. The persistence of these events indicates not only environmental degradation but also a lack of coherent local policies that integrate preventive, mitigative, and adaptive measures. In response, the Flood Management Draft Regional Regulation (Raperda Flood Management) was proposed to establish a comprehensive legal framework for flood governance. However, despite its urgency, the legislative process has become stagnant within Commission C of the Regional People's Representative Council, reflecting deeper institutional and political dysfunctions in the formulation of local regulations.

The stagnation of the Raperda Flood Management cannot be understood solely as a procedural delay; it represents a structural manifestation of political negotiation, bureaucratic inertia, and limited institutional synergy. The political dimension of this stagnation is characterized by divergent agendas between the legislative and executive branches (Bolton, 2022; Scherpereel et al., 2018). While

the DPRD emphasized the moral and social imperative to prioritize flood management through dedicated funding and regulation, the executive branch considered existing disaster management instruments adequate and viewed the proposed allocation of 10 percent of the regional budget (APBD) as fiscally unrealistic. This dissonance underscores how policy-making in decentralized Indonesia is shaped by institutional competition and political fragmentation rather than by technical rationality. Meanwhile, at the substantive level, the draft regulation although well-intentioned suffers from limited operational clarity, insufficient integration with spatial planning, and weak mechanisms for public participation. These weaknesses reveal the gap between normative aspirations and implementable design, a common challenge in local policy innovation within developing governance systems (Aguirre-Bastos & Weber, 2018; Chaminade & Padilla-Pérez, 2017; Uyarra et al., 2019).

Beyond the local context, the Bontang case offers broader insights into the dynamics of subnational governance and the prospects for policy innovation in disaster management. The failure to finalize the Raperda Flood Management demonstrates how decentralization, without adequate institutional capacity and political coherence, can lead to fragmented governance outcomes. It highlights the importance of strengthening collaborative mechanisms between legislative and executive institutions, as well as fostering participatory governance that includes community and non-governmental stakeholders (Ali, 2025, 2025; Bokayev et al., 2024). Theoretically, this condition aligns with the framework of New Public Governance and Collaborative Governance, which emphasize trust, shared accountability, and networked coordination as key determinants of effective policy formulation. Therefore, analyzing the stagnation of Bontang's flood management regulation through the lenses of political dynamics, substantive adequacy, and governance implications not only deepens the understanding of local policy failure but also contributes to the broader discourse on institutional reform and adaptive policymaking in disaster-prone regions.

Political Dynamics and Institutional Stagnation in Local Policy Formulation

Political dynamics and institutional stagnation in local policy formulation represent a complex interplay between power relations, administrative capacity, and policy intentions. In decentralized governance systems, local institutions such as regional parliaments and executive bodies become arenas where competing interests negotiate the direction of public policy. The formulation of local regulations, including those addressing critical issues like flood management, often reflects not only technical considerations but also political calculations driven by electoral incentives and partisan alignments. The legislative process becomes contingent upon bargaining among actors whose motivations extend beyond public welfare, leading to delays, compromises, and at times, complete paralysis in policy advancement (Köhler, 2018; Scharpf, 2015). This dynamic underscores that policymaking is as much a political process as it is an administrative exercise, shaped by asymmetrical power distribution and institutional dependencies between executive and legislative entities.

Institutional stagnation emerges when bureaucratic mechanisms and political leadership fail to synchronize strategic priorities with procedural efficiency. Weak

institutional design, overlapping mandates, and lack of coordination among local government agencies create structural bottlenecks that obstruct policy innovation. Decision-making inertia is further exacerbated by inadequate technical expertise, insufficient data-driven planning, and limited fiscal capacity to operationalize proposed policies. Legislative inertia becomes entrenched when local councils engage in prolonged debates without substantive policy convergence, while bureaucratic actors adhere rigidly to administrative routines (Hassani et al., 2024; Islam & Mohna, 2024; Y. Meng et al., 2025). The absence of institutional adaptability transforms policymaking into a repetitive cycle of discussions devoid of tangible outputs, resulting in a governance vacuum that delays the resolution of pressing local problems such as recurrent flooding or infrastructure deficits.

The interplay between political dynamics and institutional stagnation manifests in a self-reinforcing loop that undermines policy responsiveness. Political contestation generates uncertainty, discouraging bureaucratic initiative and innovation, while bureaucratic stagnation fuels public disillusionment with the political process. Local leaders, constrained by fragmented authority and competing agendas, struggle to assert decisive policy direction. The failure to institutionalize collaborative mechanisms between political and administrative entities weakens the capacity for evidence-based policymaking and erodes public trust in government effectiveness (Head, 2024; Newman et al., 2017).

Over time, such conditions cultivate a culture of procedural formalism, where policy formulation becomes a symbolic act of compliance rather than a transformative tool for governance improvement. Bureaucratic routines and legislative processes, once designed to ensure accountability and due diligence, evolve into mechanisms that merely sustain appearances of governance effectiveness. Decision-makers focus on fulfilling administrative requirements drafting reports, conducting hearings, and producing policy documents without ensuring that these activities yield tangible outcomes or address root societal issues. The emphasis shifts from substance to procedure, creating a governance environment where conformity to form outweighs innovation and responsiveness. Within such systems, institutional actors become risk-averse, prioritizing adherence to established norms over adaptive problem-solving (Wagner & Fain, 2018).

Political leaders, constrained by short-term interests and bureaucratic inertia, often engage in policy cycles that repeat familiar patterns without meaningful progress. The result is a self-perpetuating dynamic in which regulations proliferate, yet their impact on public welfare remains marginal (Venizelou & Poullikkas, 2024). Procedural formalism also erodes public trust, as citizens increasingly perceive policymaking as detached from their lived realities and dominated by ritualistic practices. The administrative machinery becomes preoccupied with process indicators meetings held, documents approved, budgets allocated while overlooking performance metrics that measure real societal change. Consequently, governance transforms into an exercise in maintaining legitimacy rather than achieving developmental outcomes (Banerjee, 2018; Joshi et al., 2015). To break this cycle, institutions must realign incentives toward policy learning, innovation, and intersectoral collaboration, ensuring that policymaking reclaims its purpose as an instrument for transformation and social progress.

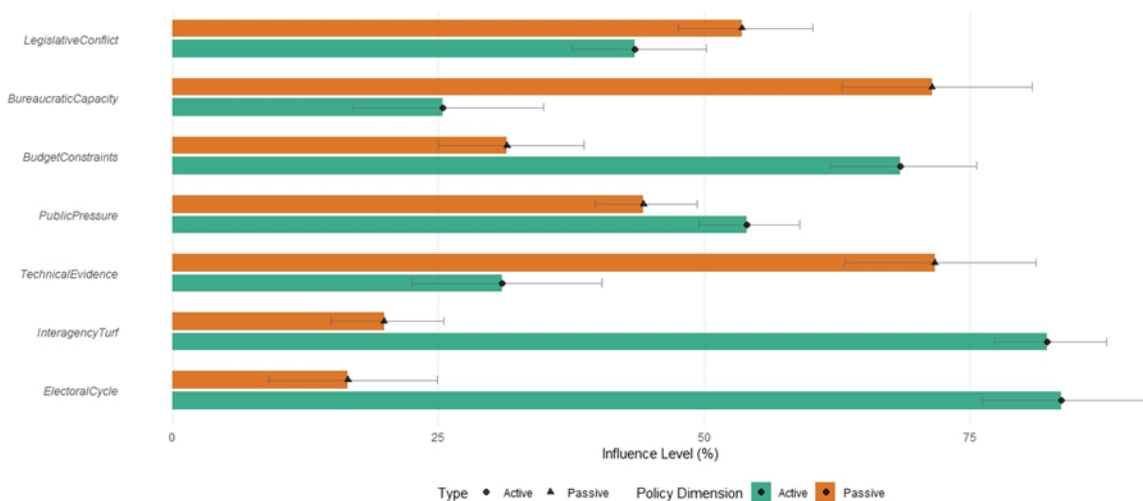


Figure 1 Political Dynamic and Institutional Stagnation in Local Policy Formulation
 Source: Data Processed by the Author 2026

Figure 1 displays the complex relationship between political dynamics and institutional stagnation in regional public policy formulation. Each bar depicts the varying intensity of influence exerted by various factors, categorized as active and passive dimensions. The active dimension represents elements that drive the policymaking process, while the passive dimension indicates forces that hinder or slow down institutional responses. This visualization serves as an analytical reflection of how regional governance mechanisms tend to oscillate between political assertiveness and bureaucratic inertia in managing policy development.

Legislative conflict appears to be one of the strongest determinants shaping the political environment of policy formulation. The dominance of the active dimension indicates that the Regional People's Representative Council (DPRD) and the executive branch frequently engage in negotiation, competition, and political maneuvering when determining policy priorities. This pattern reflects the personalization of the decision-making process and the prevalence of political bargaining in place of evidence-based consensus. However, the passive side of legislative conflict indicates that such tensions often lead to procedural deadlock, which delays policy enactment and reduces governance efficiency (Idu et al., 2023).

Bureaucratic capacity occupies the middle position in the figure, indicating that administrative institutions continue to have a modest but crucial influence in transforming political decisions into operational frameworks (T. Christensen et al., 2002; ONGARO, 2011; Williams, 2021). The data reveals a disparity between proactive administrative performance and procedural compliance, indicating that local bureaucracies still rely on hierarchical control rather than developing adaptive management practices. Limited technical expertise and fragmented coordination exacerbate this situation, creating a cycle of institutional dependency that perpetuates stagnation.

Budget constraints demonstrate the most dominant active influence, symbolizing the centrality of financial resources in local governance. Fiscal constraints force policymakers to prioritize short-term results over long-term development goals. This tendency encourages selective policy implementation, prioritizing politically advantageous projects while neglecting programs with

broader social impacts. The high variability of this factor indicates that fiscal management in local governance remains vulnerable to political cycles and leadership changes (Barbera et al., 2021; CEPIKU et al., 2016; Wang, 2017). Public pressure emerges as an intermittent but important driver of policy responsiveness. Relatively low scores on both the active and passive scales suggest that citizen participation has not yet become a consistently institutionalized force in the policy process. Citizens often exert influence through episodic mobilization or reactive engagement, rather than through structured consultative channels (Bartoletti & Faccioli, 2016; Firmstone & Coleman, 2015; Uppal, 2021). The absence of sustained participatory mechanisms reduces the capacity of local governments to translate social demands into coherent policy interventions.

Technical evidence is one of the least influential dimensions, reinforcing the notion that empirical analysis and data-driven insights play only a marginal role in decision-making. The figure illustrates the systemic underutilization of knowledge resources in shaping policy direction. Local governments often prioritize political expediency over scientific validity, resulting in regulatory frameworks that lack analytical rigor. This pattern underscores the persistent gap between knowledge creation and policy implementation in decentralized governance. Inter-agency competition further demonstrates how institutional fragmentation hinders collaborative policymaking. Competing jurisdictions and unclear mandates contribute to inefficiencies in coordination, resulting in overlapping initiatives and duplication of resources. The active influence of this factor indicates frequent inter-agency contestation, while its passive influence reflects the administrative fatigue that arises from prolonged inter-departmental competition. Such conflict weakens the coherence of local policies and hinders collective problem-solving (Dzebo et al., 2025; Maggetti & Trein, 2019; Thomann et al., 2019).

The election cycle complements the overall picture by highlighting the cyclical nature of political attention. Policy formulation tends to accelerate in the lead-up to elections, driven by political incentives to demonstrate performance. After the electoral transition, momentum often declines as the new administration shifts priorities. This rhythm perpetuates short-termism and undermines policy sustainability. The figure illustrates how institutional systems become temporally aligned with the political calendar, rather than a sustainable governance agenda.

Substantive Evaluation of the Flood Management Draft Regulation

A substantive evaluation of the draft flood management regulation requires a comprehensive analysis of its content, conceptual coherence, and alignment with existing legal frameworks and environmental governance principles. This evaluation focuses on determining whether the draft regulation embodies a holistic understanding of flood management as an integrated process encompassing prevention, mitigation, preparedness, response, and recovery. The assessment examines how the draft addresses ecological sustainability, spatial planning, infrastructure development, and community resilience within an integrated regulatory framework. Attention is also paid to the consistency of its provisions with national disaster management laws, water resources policies, and sustainable development goals (Makanda et al., 2022; Swaris et al., 2024; Tsani et al., 2020). The evaluation considers the extent to which the draft regulation translates scientific evidence and local empirical data into actionable legal

instruments capable of reducing flood risks and promoting long-term environmental security.

A critical analysis of the draft regulation reveals both structural strengths and weaknesses in its substantive formulation. The document demonstrates an awareness of multisectoral coordination, but lacks detailed operational mechanisms to ensure interagency collaboration and data integration across institutional levels. The absence of clear accountability measures for local government units and private stakeholders undermines the enforcement of its objectives. The draft regulation provides a normative framework for flood risk management but lacks details on funding mechanisms, capacity-building programs, and technological innovations needed for sustainable implementation (Khanm et al., 2024; Saputra et al., 2025; van Popering-Verkerk & van Buuren, 2017). Its provisions on community participation are formalistic, emphasizing consultation procedures without ensuring the inclusiveness of marginalized or vulnerable groups. Its overall structure reflects an intention to institutionalize flood management, but remains hampered by bureaucratic and procedural constraints that hinder effective implementation.

An evaluation of the draft regulation underscores the need for substantive improvements in legal precision, institutional coordination, and adaptive governance mechanisms. Integration of spatial data systems, climate models, and risk assessment tools would enhance the evidence base for policy formulation. Strengthening cross-sectoral relationships between environmental agencies, infrastructure agencies, and regional disaster management units would facilitate coherent implementation and monitoring (Hermansson, 2019; Wu et al., 2025). An emphasis on participatory governance is crucial to ensure that flood management is not simply a technical exercise but a social contract involving communities as active partners. The substantive evaluation ultimately highlights that the draft regulation has potential as a strategic instrument for flood resilience, but its transformative capacity depends on the political will to refine, operationalize, and sustain its core principles within a dynamic environmental governance framework.

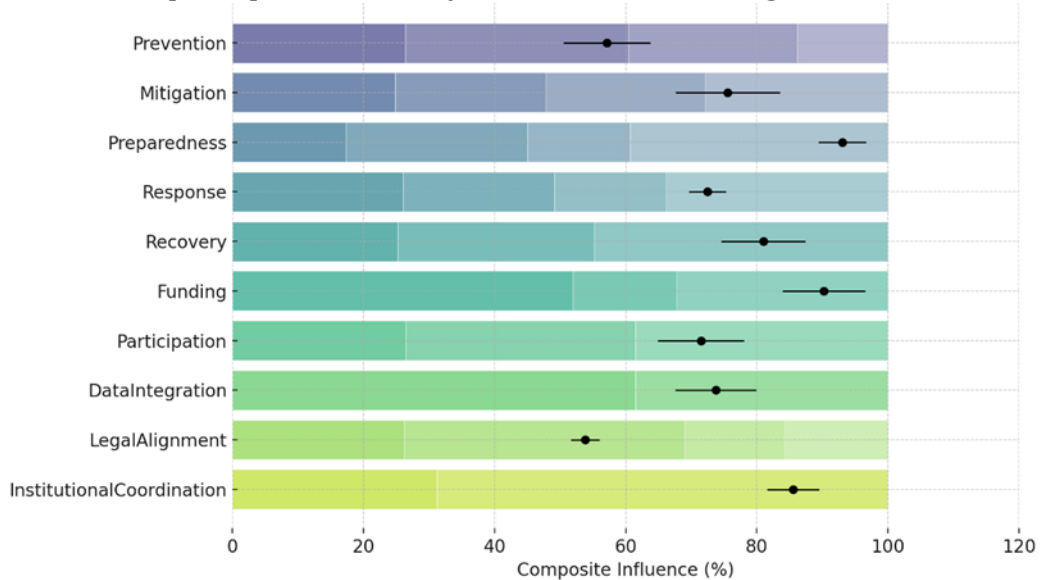


Figure 2 Substantive Evaluation of the Flood Management Draft Regulation

Source: Data Processed by the Author 2026

Figure 2 presents a substantive evaluation of the Draft Flood Management Regulation, offering a multidimensional overview of the policy's structural composition and internal coherence. Each horizontal bar represents a key regulatory component, such as prevention, mitigation, preparedness, response, recovery, funding, participation, data integration, legal alignment, and institutional coordination. The horizontal format highlights the relative weight of each component within the regulatory framework, while the color-coded segments reflect the internal subdimensions that collectively shape its total influence. Black dots positioned across the bars indicate the average level of influence, while horizontal lines extending from them represent margins of uncertainty or confidence intervals. Thus, this figure embodies the magnitude and variability of each component's contribution, illustrating how technical, institutional, and participatory elements interrelate within the broader flood governance framework.

Prevention and mitigation emerge as the most influential components, indicating that the draft regulation adopts a forward-looking perspective centered on risk anticipation and hazard reduction. The dominance of these components indicates that the regulatory framework recognizes the importance of upstream interventions in minimizing the frequency and impact of floods. High influence scores in these areas indicate that institutional efforts are focused on structural and non-structural mitigation strategies, including spatial planning, infrastructure strengthening, and early warning systems. The inclusion of uncertainty ranges reflects that while prevention and mitigation have been well-demonstrated, there is variation across regions and administrative levels, indicating differences in capacity, resource allocation, and responsiveness of local governance (Khine & Langkulsen, 2023).

Preparedness and response show moderate levels of influence, indicating that operational mechanisms for emergency management exist but are inconsistently integrated within the regulatory framework. This visualization implies that disaster preparedness planning and response strategies have not achieved optimal synchronization between local and national institutions. This reflects a policy environment in which contingency planning, resource mobilization, and communication coordination have been recognized but remain fragmented (Boin & Bynander, 2015; Wolbers et al., 2018). The variability in adaptation captured by the error bars indicates fluctuations in implementation quality, likely due to limited institutional training, budget constraints, and uneven technological boundaries across administrative regions.

Recovery occupies a transitional position within the framework, indicating that post-disaster rehabilitation is partially integrated but has yet to develop as a systematic process. Moderate to high variability associated with recovery underscores the challenges of sustaining policy attention and financial support after the immediate crisis has passed. The visual distribution indicates that the regulation aims to embed recovery within a long-term resilience-building framework but lacks explicit mechanisms for sustainability, community reintegration, and financial sustainability. This asymmetry indicates an

institutional bias toward short-term restoration rather than comprehensive reconstruction aligned with environmental and social sustainability principles (Hodge & Adams, 2016).

Financing, participation, and data integration collectively represent the regulatory backbone supporting substantive implementation. The moderate influence of funding indicates a reliance on centralized or external sources rather than a locally sustainable fiscal framework. Participation remains relatively low, indicating that community engagement and stakeholder inclusion have not been sufficiently institutionalized. This lack reflects procedural formality rather than substantive engagement, which limits the transformative potential of participatory governance. Data integration, while moderately represented, indicates gradual institutional recognition of evidence-based policymaking (Sivarajah et al., 2016). The inclusion of these factors in the figure demonstrates an emerging commitment to data harmonization and risk mapping, although technical interoperability and cross-agency data sharing remain weak areas.

Legal harmonization and institutional coordination occupy a lower level of influence, highlighting persistent challenges related to policy harmonization and administrative coherence. The weaker position of these components indicates that intergovernmental collaboration remains hampered by overlapping mandates, fragmented legal instruments, and competing jurisdictions. The figure depicts a governance landscape characterized by partial synergy rather than full orchestration. This imbalance reflects broader structural patterns in public administration, where technical capacity is unevenly distributed and coordination mechanisms are procedural rather than strategic. The graphical representation thus encapsulates the dual nature of the draft regulation progressive in conceptual ambition but constrained by institutional inertia and resource asymmetries (Allioui & Mourdi, 2023; Jørgensen & Ma, 2025).

The overall structure of the figure indicates that the draft regulation, while conceptually comprehensive, remains substantially uneven in its internal architecture. The high emphasis on prevention and mitigation demonstrates regulatory maturity, but the lack of representation of coordination, participation, and adaptive management limits its transformative capacity. The presence of error bars across multiple dimensions indicates that uncertainty persists in operational implementation, reflecting variability in administrative competence, fiscal stability, and interagency cooperation. Ultimately, the figure depicts an evolving policy framework a document that recognizes the diverse challenges of flood governance but still requires institutional refinement, participatory strengthening, and data-driven integration to develop into a robust instrument for sustainable disaster risk management.

Implications for Local Governance and Policy Innovation

Implications for local governance and policy innovation emerge as critical considerations in understanding how institutional structures respond to the evolving challenges of flood management. The dynamics of decentralization place local governments at the forefront of environmental governance, demanding greater autonomy, accountability, and adaptive capacity in policy design and implementation. Local administrations serve as both the executors and innovators

of public policy, where their proximity to affected communities enables them to interpret and contextualize national frameworks within local realities. The capacity to innovate within governance structures depends not only on institutional resources but also on leadership vision, collaborative networks, and the ability to integrate cross-sectoral knowledge into practical interventions. In the context of flood management, local governments are expected to transcend bureaucratic formalism and adopt anticipatory approaches that blend scientific data, community participation, and interagency cooperation to create more resilient governance models.

Institutional adaptation becomes a decisive factor in determining the success of local policy innovation. The capacity to reform administrative processes, streamline decision-making procedures, and institutionalize learning mechanisms defines whether local governance can evolve from compliance-based administration to a more experimental, knowledge-driven system. The presence of rigid bureaucratic hierarchies and overlapping mandates often constrains innovation, leading to fragmented interventions and delayed policy responses. The pressure to demonstrate quick results frequently discourages local leaders from pursuing long-term structural reforms, perpetuating cycles of short-termism. Within this institutional environment, innovation is most likely to emerge when governance actors possess the flexibility to reinterpret regulations, utilize digital technologies, and engage non-governmental actors as co-producers of policy solutions. The ability to sustain innovation over time relies heavily on local governments' commitment to fostering collaboration, cultivating technical competence, and maintaining accountability toward the communities they serve (Gasco-Hernandez et al., 2022).

Transformative policy innovation in local governance ultimately requires the cultivation of an ecosystem that values experimentation, reflexivity, and participatory inclusiveness (Borie et al., 2020). Local administrations must evolve into learning organizations capable of continuously reassessing their strategies in response to emerging environmental and social complexities. The implications of this shift extend beyond flood management, signaling a broader transformation in how governance systems conceptualize authority, legitimacy, and public value creation. The diffusion of innovative practices across local jurisdictions has the potential to generate cumulative institutional learning, contributing to more coherent and sustainable policy outcomes. The effectiveness of such transformations depends on the willingness of local leaders to embrace change, the establishment of supportive regulatory environments, and the alignment of innovation incentives with developmental priorities. The overall implication underscores that sustainable local governance is not merely a function of institutional capacity but a manifestation of strategic creativity, collective learning, and adaptive policymaking that evolves in tandem with the needs of society and the challenges of environmental uncertainty.



Figure 3 Implications for Local Governance and Policy Innovation

Source: Data Processed by the Author 2026

Figure 3 conceptualizes the key implications for local governance and policy innovation, presented in a circular framework to signify the interdependence and continuity among governance dimensions. Each segment of the donut diagram represents a distinct yet interconnected domain that contributes to the effectiveness of local policy transformation. This circular arrangement reflects the theoretical notion that governance innovation does not emerge from isolated reform efforts, but rather from the systemic interaction of various institutional capacities, leadership qualities, participatory mechanisms, and data-driven decision-making processes. The placement of each element within a cohesive structure highlights how governance innovation operates as an ecosystem of mutually reinforcing components, rather than a linear series of administrative actions. The main text, "Local Policy Innovation," symbolizes the integrative outcome of this collective effort, emphasizing that sustainable governance reform is achieved when diverse policy domains converge into a unified strategic orientation.

Regional autonomy emerges as a fundamental component that allows local governments to exercise discretion, prioritize local needs, and experiment with new policy approaches without excessive central oversight. Local government autonomy provides a supportive environment for governance creativity, facilitating adaptive solutions that reflect the specific conditions of communities. Accountability complements autonomy by ensuring that the exercise of local power remains transparent, participatory, and ethically grounded. The interplay between autonomy and accountability determines the level of citizen trust in local institutions and the willingness of stakeholders to engage in collaborative innovation. Leadership vision occupies a strategic position in the diagram, illustrating its role as a catalyst that transforms institutional intentions into coordinated action. Visionary leadership encourages the articulation of long-term goals, mobilizes resources, and aligns bureaucratic structures to achieve inclusive and resilient policy outcomes (Brown & Ofosu-Anim, 2025).

Cross-sector collaboration represents the operational dimension through which governance innovation is realized in practice. The inclusion of this segment in the framework signals the growing recognition that contemporary policy challenges particularly in environmental management, digital governance, and social inclusion cannot be addressed by government institutions alone.

Collaborative arrangements spanning the public, private, and civil society sectors broaden the resource base and foster policy coherence. Data-driven policy reflects the analytical core of modern governance, where evidence generation and data integration support rational decision-making and continuous policy learning. The presence of this domain in the circular framework emphasizes the shift from reactive policymaking to proactive, intelligence-driven governance strategies that rely on empirical validation and iterative feedback loops (Mahmud, 2025).

Fiscal capacity and digitalization together form the pillars of policy innovation infrastructure. Fiscal strength ensures that local governments can finance their reform initiatives, maintain public services, and invest in long-term development agendas without over-reliance on central transfers. Digitalization transforms administrative processes by integrating technology into governance routines, thereby increasing transparency, efficiency, and citizen accessibility. Civic engagement represents the participatory dimension, signaling the importance of citizen inclusion in shaping, monitoring, and evaluating public policies (Kalandides, 2018). Active citizen engagement strengthens legitimacy, facilitates social learning, and ensures that innovations remain socially embedded, rather than technocratically imposed. Organizational learning serves as an adaptive mechanism that enables institutions to internalize lessons from policy experiments, failures, and successes. Through learning, local governments cultivate resilience and the ability to refine strategies in response to evolving social and environmental contexts.

Innovation incentives complement the circular structure by illustrating the motivational forces that underpin creative behavior within governance institutions. Innovation incentives align bureaucratic performance with development goals and encourage risk-taking within reasonable limits. Organizing all these elements around the core concept of local policy innovation underscores a holistic vision of governance reform—one that goes beyond bureaucratic modernization and extends to institutional transformation rooted in inclusivity, adaptability, and strategic vision. The donut shape visually conveys the dynamic equilibrium required to balance multiple policy dimensions, reminding academics and practitioners that effective governance innovation is not the result of isolated excellence, but rather the culmination of systemic alignment and ongoing institutional renewal.

The discussion surrounding the three subheadings Political Dynamics and Institutional Stagnation in Local Policy Formulation, Substantive Evaluation of the Flood Management Draft Regulation, and Implications for Local Governance and Policy Innovation reveals the intricate interplay between political structure, institutional behavior, and the evolving character of governance innovation. The synthesis of these three dimensions captures the multidirectional flow of influence that defines how local policies are conceived, legitimized, and transformed. Political dynamics operate as the contextual force shaping institutional responsiveness, while substantive policy evaluation exposes the operational depth of regulatory frameworks. The implications for governance innovation represent the prospective trajectory of reform emerging from both constraints and opportunities embedded within the political-institutional system. The dialogue among these dimensions underscores that governance is neither static nor linear

but instead a dynamic process continually shaped by the negotiation between structure and agency, rules and reform, continuity and change (Imre, 2025).

Political dynamics in local policy formulation serve as both the foundation and limitation of institutional performance. The dominance of political actors in determining policy priorities frequently generates institutional stagnation when formal structures are subordinated to partisan calculations. The interaction between bureaucratic routines and electoral imperatives produces a form of procedural rigidity in which policymaking becomes symbolic rather than transformative. Institutional inertia emerges when political elites instrumentalize administrative processes for legitimacy maintenance instead of developmental outcomes. The entanglement between political patronage and institutional dependence prevents the diffusion of innovative practices and diminishes the autonomy of policy technocrats. The resulting policy environment tends to privilege compliance and continuity over experimentation and evidence-based adaptation. Within this configuration, reform becomes an act of negotiation rather than an expression of rational institutional design, and the space for innovation is constrained by the dual pressures of loyalty and control (Benz, 2021).

The substantive evaluation of the Flood Management Draft Regulation reflects the operational translation of these political and institutional realities into regulatory frameworks. The draft regulation embodies the technocratic aspiration to address environmental vulnerability while simultaneously revealing the limits of bureaucratic coherence. The evaluation of its components demonstrates that while the policy framework incorporates principles of prevention, mitigation, and preparedness, the actual institutional arrangements remain fragmented. The influence of legislative conflict, fiscal constraints, and weak interagency coordination restricts the operationalization of strategic objectives. Technical evidence, though formally acknowledged, fails to dominate the policymaking discourse due to the persistence of hierarchical and politicized decision processes. The regulation's capacity to bridge scientific reasoning with local implementation depends on institutional integration, which in practice remains partial and inconsistent. The analysis of the flood management framework reveals that policy substance cannot be divorced from the governance context in which it is produced. Regulatory ambition without institutional synergy results in performative governance—strong in rhetoric but fragile in execution.

The implications for local governance and policy innovation emerge as the normative counterbalance to the constraints observed in the earlier dimensions. The transition toward innovative governance requires a reconfiguration of institutional norms and behavioral logics. Local autonomy becomes meaningful when it is accompanied by accountability, fiscal flexibility, and participatory engagement. The development of adaptive capacity depends on the ability of local institutions to internalize lessons from both success and failure, transforming administrative learning into systemic resilience. Policy innovation, in this sense, is not a spontaneous occurrence but the cumulative outcome of iterative reform processes, supported by leadership vision and cross-sector collaboration. The integration of digital tools, data-driven decision-making, and organizational learning fosters a more anticipatory and networked model of governance. The shift

from rule compliance to adaptive problem-solving signifies a paradigmatic change from government to governance, where authority is shared and legitimacy derives from inclusivity and evidence rather than hierarchy alone (Ison et al., 2015). The transformation of local governance, therefore, requires not merely new instruments but a new institutional ethos that values experimentation, reflexivity, and co-creation with society.

The conceptual bridge among these three subheadings lies in the dialectical relationship between constraint and transformation. Political and institutional stagnation delineates the limits of existing governance systems, while substantive evaluation of policy instruments exposes the technical and procedural gaps that hinder implementation. The push toward innovation represents the system's adaptive response to those very limitations. The co-evolution of these dimensions illustrates that governance reform is not achieved through abrupt replacement of old structures but through the gradual reengineering of institutional logic. The patterns observed in the flood management case demonstrate how policy sectors can function as laboratories for broader governance learning, where failures serve as feedback mechanisms that inform the redesign of policy processes. The interdependence of political context, policy substance, and innovation potential thus defines the dynamic through which local governance evolves.

The discussion reinforces the understanding that governance innovation is fundamentally relational. Political structures define the parameters of institutional action, yet the agency of reformers and policy communities determines whether those parameters remain constraining or become enabling. The degree of institutional stagnation does not merely reflect dysfunction but also indicates potential energy for reform once the right incentives and collaborative frameworks are established. The iterative nature of policy evaluation contributes to the deepening of institutional memory and the emergence of adaptive learning cultures within local administrations. The convergence of these processes leads to a more systemic understanding of governance—one that transcends the dichotomy between stability and change by recognizing that institutional endurance depends on the capacity to evolve. The integration of these three analytical lenses ultimately points to the conclusion that sustainable governance reform is realized when political rationality, policy substance, and institutional adaptability converge in a shared pursuit of collective learning, societal responsiveness, and long-term resilience

CONCLUSION

The synthesis of the three analytical dimensions reveals that the trajectory of local governance reform is determined by the continuous negotiation between political constraints, institutional capacity, and the pursuit of policy innovation. The persistence of political dominance and bureaucratic rigidity constrains the transformative potential of policy formulation, yet these same structural tensions generate the impetus for adaptive reform. The evaluation of the Flood Management Draft Regulation demonstrates that technical sophistication alone is insufficient without institutional coherence and collaborative governance. The emergence of innovation within local administration depends on the ability to reconcile autonomy with accountability, integrate evidence with participation, and transform compliance-based governance into a culture of learning and experimentation. The overarching conclusion emphasizes that sustainable local

governance is achieved not through isolated reforms but through the systemic alignment of political will, institutional design, and policy intelligence, producing a governance ecosystem that is both resilient and responsive to the evolving demands of public service and environmental complexity.

REFERENCE

- Abimbola, S., Baatiema, L., & Bigdeli, M. (2019). The Impacts Of Decentralization On Health System Equity, Efficiency And Resilience: A Realist Synthesis Of The Evidence. *Health Policy And Planning*, 34(8), 605–617. <https://doi.org/10.1093/heapol/czz055>
- Adam, C., Hurka, S., Knill, C., & Steinebach, Y. (2022). On Democratic Intelligence And Failure: The Vice And Virtue Of Incrementalism Under Political Fragmentation And Policy Accumulation. *Governance*, 35(2), 525–543. <https://doi.org/10.1111/gove.12595>
- Aguirre-Bastos, C., & Weber, M. K. (2018). Foresight For Shaping National Innovation Systems In Developing Economies. *Technological Forecasting And Social Change*, 128, 186–196. <https://doi.org/10.1016/j.techfore.2017.11.025>
- Alexander, M., Priest, S., & Mees, H. (2016). A Framework For Evaluating Flood Risk Governance. *Environmental Science & Policy*, 64, 38–47. <https://doi.org/10.1016/j.envsci.2016.06.004>
- Ali, H. E. (2025). Governance And Global Collaboration In Non-Democratic Countries. *Public Administration Review*, 85(4), 1038–1069. <https://doi.org/10.1111/puar.13897>
- Allioui, H., & Mourdi, Y. (2023). Exploring The Full Potentials Of Iot For Better Financial Growth And Stability: A Comprehensive Survey. *Sensors*, 23(19), 8015. <https://doi.org/10.3390/s23198015>
- Almumtahanah, A., & Sabaryati, J. (2024). Analysis Of Difficulty In Cognitive Learning Outcomes Of Grade X Students On Newton's Law At Senior High School 3 Wera. *Journal Of Computers For Science And Mathematics Learning*, 1(2), 107–116. <https://doi.org/10.70232/kjydw303>
- Amankwaa, E. F., Bofofo, Y. A., Spataru, C., & Carvalho, P. (2024). 'Don't Call Us Vulnerable!': Rethinking Flood Vulnerability And Community-Led Governance. *Journal Of Urban Affairs*, 1–16. <https://doi.org/10.1080/07352166.2024.2401885>
- Ansell, C., Sørensen, E., & Torfing, J. (2017). Improving Policy Implementation Through Collaborative Policymaking. *Policy & Politics*, 45(3), 467–486. <https://doi.org/10.1332/030557317x14972799760260>
- Banerjee, S. B. (2018). Transnational Power And Translocal Governance: The Politics Of Corporate Responsibility. *Human Relations*, 71(6), 796–821. <https://doi.org/10.1177/0018726717726586>
- Barbera, C., Jones, M., Korac, S., Saliterer, I., & Steccolini, I. (2021). Local Government Strategies In The Face Of Shocks And Crises: The Role Of Anticipatory Capacities And Financial Vulnerability. *International Review Of Administrative Sciences*, 87(1), 154–170. <https://doi.org/10.1177/0020852319842661>
- Bartoletti, R., & Faccioli, F. (2016). Public Engagement, Local Policies, And Citizens' Participation: An Italian Case Study Of Civic Collaboration. *Social Media + Society*, 2(3). <https://doi.org/10.1177/2056305116662187>

- Benz, A. (2021). *Policy Change And Innovation In Multilevel Governance*. Edward Elgar Publishing. <https://doi.org/10.4337/9781788119177>
- Benz, A., & Sonnicksen, J. (2017). Patterns Of Federal Democracy: Tensions, Friction, Or Balance Between Two Government Dimensions. *European Political Science Review*, 9(1), 3–25. <https://doi.org/10.1017/S1755773915000259>
- Boin, A., & Bynander, F. (2015). Explaining Success And Failure In Crisis Coordination. *Geografiska Annaler: Series A, Physical Geography*, 97(1), 123–135. <https://doi.org/10.1111/Geoa.12072>
- Bokayev, B., Utepova, G., Baktiyarova, G., & Baitassova, U. (2024). Empowering Non-Governmental Organization Representatives: Enhancing Collaborative And Participatory Governance Through Training Initiatives. *Journal Of Governance And Regulation*, 13(2, Special Issue), 419–430. <https://doi.org/10.22495/Jgrv13i2siart17>
- Bolton, A. (2022). Gridlock, Bureaucratic Control, And Nonstatutory Policymaking In Congress. *American Journal Of Political Science*, 66(1), 238–254. <https://doi.org/10.1111/Ajps.12621>
- Borie, M., Gustafsson, K. M., Obermeister, N., Turnhout, E., & Bridgewater, P. (2020). Institutionalising Reflexivity? Transformative Learning And The Intergovernmental Science-Policy Platform On Biodiversity And Ecosystem Services (Ipbes). *Environmental Science & Policy*, 110, 71–76. <https://doi.org/10.1016/j.envsci.2020.05.005>
- Brown, G., & Ofosu-Anim, D. (2025). *Conceptualizing Leadership In Social Movements: Challenges, Contexts, And Strategies*. <https://doi.org/10.2139/ssrn.5248151>
- C. Godswalth, I., Ahmad, Z. B., & Jawan, J. (2016). Factors Influencing The Executive And Legislative Conflict In Nigeria Political Development. *Iosr Journal Of Humanities And Social Science*, 21(08), 20–25. <https://doi.org/10.9790/0837-2108072025>
- Cepiku, D., Mussari, R., & Giordano, F. (2016). Local Governments Managing Austerity: Approaches, Determinants And Impact. *Public Administration*, 94(1), 223–243. <https://doi.org/10.1111/Padm.12222>
- Chaminade, C., & Padilla-Pérez, R. (2017). The Challenge Of Alignment And Barriers For The Design And Implementation Of Science, Technology And Innovation Policies For Innovation Systems In Developing Countries. In *Research Handbook On Innovation Governance For Emerging Economies*. Edward Elgar Publishing. <https://doi.org/10.4337/9781783471911.00013>
- Chaudhary, M. T., & Piracha, A. (2021). Natural Disasters—Origins, Impacts, Management. *Encyclopedia*, 1(4), 1101–1131. <https://doi.org/10.3390/Encyclopedia1040084>
- Christensen, J. (2021). Expert Knowledge And Policymaking: A Multi-Disciplinary Research Agenda. *Policy & Politics*, 49(3), 455–471. <https://doi.org/10.1332/030557320x15898190680037>
- Christensen, T., Lægreid, O. M., & Lægreid, P. (2019). Administrative Coordination Capacity; Does The Wickedness Of Policy Areas Matter? *Policy And Society*, 38(2), 237–254. <https://doi.org/10.1080/14494035.2019.1584147>
- Christensen, T., Laegreid, P., & Wise, L. R. (2002). Transforming Administrative Policy. *Public Administration*, 80(1), 153–178. <https://doi.org/10.1111/1467-9299.00298>
- Connolly, C. (2022). The Forests In The City: Building Participatory Approaches To Urban-Environmental Governance. In *Political Ecologies Of Landscape* (Pp. 77–

- 95). Bristol University Press.
<https://doi.org/10.51952/9781529214161.Ch005>
- Danhassan, S. S., Abubakar, A., Zangina, A. S., Ahmad, M. H., Hazaea, S. A., Ishak, M. Y., & Zhang, J. (2023). Flood Policy And Governance: A Pathway For Policy Coherence In Nigeria. *Sustainability*, 15(3), 2392. <https://doi.org/10.3390/Su15032392>
- Dzebo, A., Shawoo, Z., & Browne, K. (2025). Does Policy Coherence Make National Implementation Of Global Sustainability Agendas More Successful? *Annual Review Of Environment And Resources*, 50(1), 539–562. <https://doi.org/10.1146/Annurev-Environ-111523-102337>
- El-Taliawi, O. G., & Van Der Wal, Z. (2019). Developing Administrative Capacity: An Agenda For Research And Practice. *Policy Design And Practice*, 2(3), 243–257. <https://doi.org/10.1080/25741292.2019.1595916>
- Enkler, J., Schmidt, S., Eckhard, S., Knill, C., & Grohs, S. (2017). Administrative Styles In The Oecd: Bureaucratic Policy-Making Beyond Formal Rules. *International Journal Of Public Administration*, 40(8), 637–648. <https://doi.org/10.1080/01900692.2016.1186176>
- Esposito, D. (2025). A Ladder Of Urban Resilience: An Evolutionary Framework For Transformative Governance Of Communities Facing Chronic Crises. *Sustainability*, 17(13), 6010. <https://doi.org/10.3390/Su17136010>
- Fayazi, M., Arefian, F. F., Gharaati, M., Johnson, C., Lizarralde, G., & Davidson, C. (2017). Managing Institutional Fragmentation And Time Compression In Post-Disaster Reconstruction – The Case Of Bam. *International Journal Of Disaster Risk Reduction*, 21, 340–349. <https://doi.org/10.1016/J.Ijdr.2017.01.012>
- Fernández-I-Marín, X., Hinterleitner, M., Knill, C., & Steinebach, Y. (2025). Testing Theories Of Policy Growth: Public Demands, Interest Group Politics, Electoral Competition, And Institutional Fragmentation. *Journal Of European Public Policy*, 32(3), 784–809. <https://doi.org/10.1080/13501763.2024.2317358>
- Filippi, M. E. (2022). A Role For Municipal Governments In Leveraging Transformative Change For Urban Disaster Risk Management: The Experience Of Santa Fe, Argentina, With Urban Flood Risk. *Climate Risk Management*, 35, 100397. <https://doi.org/10.1016/J.Crm.2022.100397>
- Firmstone, J., & Coleman, S. (2015). Public Engagement In Local Government: The Voice And Influence Of Citizens In Online Communicative Spaces. *Information, Communication & Society*, 18(6), 680–695. <https://doi.org/10.1080/1369118x.2014.986180>
- Gasco-Hernandez, M., Nasi, G., Cucciniello, M., & Hiedemann, A. M. (2022). The Role Of Organizational Capacity To Foster Digital Transformation In Local Governments: The Case Of Three European Smart Cities. *Urban Governance*, 2(2), 236–246. <https://doi.org/10.1016/J.Ugj.2022.09.005>
- Gonçalves, J., Condessa, B., & Bizarro, S. (2025). Temporal Governance And The Politics Of Time Beyond Delay In Spatial Planning. *Urban Science*, 9(7), 279. <https://doi.org/10.3390/Urbansci9070279>
- Hassani, M., Atani, A. R., Hamidizadeh, M. R., & Abdolhamid, M. (2024). An Alternative Form Of Bureaucracy; The Operational Framework Of The City's Governing Authority. *Journal Of Infrastructure, Policy And Development*, 8(5), 4278. <https://doi.org/10.24294/Jipd.V8i5.4278>
- Head, B. W. (2024). Reconsidering Expertise For Public Policymaking: The Challenges Of Contestability. *Australian Journal Of Public Administration*, 83(2), 156–172. <https://doi.org/10.1111/1467-8500.12613>

- Hermansson, H. (2019). Disaster Response In Turkey: Conditions Promoting Cross-Sectoral Collaboration And Implications For Effectiveness. *Administration & Society*, 51(7), 1051–1078. <https://doi.org/10.1177/0095399716680058>
- Hodge, I., & Adams, W. (2016). Short-Term Projects Versus Adaptive Governance: Conflicting Demands In The Management Of Ecological Restoration. *Land*, 5(4), 39. <https://doi.org/10.3390/Land5040039>
- Hung, H.-C., Yang, C.-Y., Chien, C.-Y., & Liu, Y.-C. (2016). Building Resilience: Mainstreaming Community Participation Into Integrated Assessment Of Resilience To Climatic Hazards In Metropolitan Land Use Management. *Land Use Policy*, 50, 48–58. <https://doi.org/10.1016/j.landusepol.2015.08.029>
- Ibrahim, A., Salifu, A.-H., & Peprah, C. (2023). Does Governance Matter When Disaster Looms? Zooming Into Proactive Institutional Measures For Flood Risk Management. *International Journal Of Disaster Risk Reduction*, 97, 104021. <https://doi.org/10.1016/j.ijdr.2023.104021>
- Idu, J. O. O., Okereke, M., Abioye, R. F., Enow, O. F., Ihwughwavwe, S. I., Filani, O. M., Okojie, J. S., & Nnabueze, S. B. (2023). Community Participation And The Security Of Energy Infrastructure In Nigeria: Pathways To Collaborative Governance And Sustainable Protection. *International Journal Of Multidisciplinary Research And Growth Evaluation*, 4(4), 1180–1194. <https://doi.org/10.54660/Ijmrge.2023.4.4.1180-1194>
- Imre, Ö. (2025). Accountability And Governance In Municipal Corporations: Insights From Negotiated Order Theory. *International Journal Of Public Sector Management*, 1–21. <https://doi.org/10.1108/Ijpsm-12-2024-0414>
- Islam, S., & Mohna, H. A. (2024). Comparative Analysis Of Political Economy Models In South Asia And Their Impact On Public Sector Reform. *Review Of Applied Science And Technology*, 03(01), 01–39. <https://doi.org/10.63125/B34gdt94>
- Ison, R. L., Collins, K. B., & Wallis, P. J. (2015). Institutionalising Social Learning: Towards Systemic And Adaptive Governance. *Environmental Science & Policy*, 53, 105–117. <https://doi.org/10.1016/j.envsci.2014.11.002>
- Janssen, M., & Helbig, N. (2018). Innovating And Changing The Policy-Cycle: Policy-Makers Be Prepared! *Government Information Quarterly*, 35(4), S99–S105. <https://doi.org/10.1016/j.giq.2015.11.009>
- Jørgensen, B. N., & Ma, Z. G. (2025). Digital Twin Of The European Electricity Grid: A Review Of Regulatory Barriers, Technological Challenges, And Economic Opportunities. *Applied Sciences*, 15(12), 6475. <https://doi.org/10.3390/App15126475>
- Joshi, D. K., Hughes, B. B., & Sisk, T. D. (2015). Improving Governance For The Post-2015 Sustainable Development Goals: Scenario Forecasting The Next 50years. *World Development*, 70, 286–302. <https://doi.org/10.1016/j.worlddev.2015.01.013>
- Kalandides, A. (2018). Citizen Participation: Towards A Framework For Policy Assessment. *Journal Of Place Management And Development*, 11(2), 152–164. <https://doi.org/10.1108/Jpmd-02-2018-0017>
- Khanm, T., Kaman, Z. K., & Samsuddin, S. A. B. (2024). A Literature Review On Social Innovation And Community Flood Preparedness In Alignment With Sfdrr And Sdg: Recommendations For Dam Failure Flood Risk Management. *International Journal Of Sustainable Development And Planning*, 19(7), 2673–2681. <https://doi.org/10.18280/Ijsdp.190723>
- Khine, M. M., & Langkulsen, U. (2023). The Implications Of Climate Change On Health Among Vulnerable Populations In South Africa: A Systematic Review. *International Journal Of Environmental Research And Public Health*, 20(4),

3425. <https://doi.org/10.3390/Ijerp20043425>
- Köhler, H.-D. (2018). Industrial Relations In Spain – Strong Conflicts, Weak Actors And Fragmented Institutions. *Employee Relations*, 40(4), 725–743. <https://doi.org/10.1108/Er-08-2017-0195>
- Maggetti, M., & Trein, P. (2019). Multilevel Governance And Problem-Solving: Towards A Dynamic Theory Of Multilevel Policy-Making? *Public Administration*, 97(2), 355–369. <https://doi.org/10.1111/Padm.12573>
- Mahmud, D. (2025). An Iot-Enabled Decision Support System For Circular Economy Business Models: A Review Of Economic Efficiency And Sustainability Outcomes. *American Journal Of Scholarly Research And Innovation*, 04(01), 250–286. <https://doi.org/10.63125/28kdxg31>
- Makanda, K., Nzama, S., & Kanyerere, T. (2022). Assessing The Role Of Water Resources Protection Practice For Sustainable Water Resources Management: A Review. *Water*, 14(19), 3153. <https://doi.org/10.3390/W14193153>
- Marks, D., & Lebel, L. (2016). Disaster Governance And The Scalar Politics Of Incomplete Decentralization: Fragmented And Contested Responses To The 2011 Floods In Central Thailand. *Habitat International*, 52, 57–66. <https://doi.org/10.1016/J.Habitatint.2015.08.024>
- Meng, M., Dabrowski, M., & Stead, D. (2020). Enhancing Flood Resilience And Climate Adaptation: The State Of The Art And New Directions For Spatial Planning. *Sustainability*, 12(19), 7864. <https://doi.org/10.3390/Su12197864>
- Meng, M., Dąbrowski, M., Tai, Y., Stead, D., & Chan, F. (2019). Collaborative Spatial Planning In The Face Of Flood Risk In Delta Cities: A Policy Framing Perspective. *Environmental Science & Policy*, 96, 95–104. <https://doi.org/10.1016/J.Envsci.2019.03.006>
- Meng, Y., Zhu, J., & Song, C. (2025). Pragmatism Versus Formalism: Theoretical Analysis And Reform Reflections On The Dilemmas Of Modern Governance. *Policom Administration Review*, 1(1), 117–141. <https://doi.org/10.63802/Pemr.V1.I1.100>
- Mookherjee, D. (2015). Political Decentralization. *Annual Review Of Economics*, 7(1), 231–249. <https://doi.org/10.1146/Annurev-Economics-080614-115527>
- Moreno, F., & Lopez, I. F. (2025). *Strategic Governance Of Flood And Drought Management: A Case Study Of Zamboanga City, Philippines*. <https://doi.org/10.2139/SSrn.5042771>
- Muhammad, D. H., Marzuki, M. H., Qodir, A., & Zaka, M. Z. (2025). Improving Arabic Vocabulary Understanding Through The Drill Method At Mi Darul Ulum Probolinggo. *Refleksi: Jurnal Penelitian Tindakan*, 2(2), 90–99. <https://doi.org/10.70437/Refleksi.V2i2.1504>
- Nachbagauer, A. (2022). Synchronous And Diachronic Timing: Insights Into Managing Projects From Disaster Management And Fast-Response Organizations. *Project Management Journal*, 53(2), 146–160. <https://doi.org/10.1177/87569728221079414>
- Nasution, A. (2017). The Government Decentralization Program In Indonesia. In *Central And Local Government Relations In Asia*. Edward Elgar Publishing. <https://doi.org/10.4337/9781786436870.00017>
- Newman, J., Cherney, A., & Head, B. W. (2017). Policy Capacity And Evidence-Based Policy In The Public Service. *Public Management Review*, 19(2), 157–174. <https://doi.org/10.1080/14719037.2016.1148191>
- Nohrstedt, D. (2022). When Do Disasters Spark Transformative Policy Change And

- Why? *Policy & Politics*, 50(3), 425–441.
<https://doi.org/10.1332/030557321x16508834302815>
- Oliveira, E., & Hersperger, A. M. (2018). Governance Arrangements, Funding Mechanisms And Power Configurations In Current Practices Of Strategic Spatial Plan Implementation. *Land Use Policy*, 76, 623–633.
<https://doi.org/10.1016/j.landusepol.2018.02.042>
- Ongaro, E. (2011). The Role Of Politics And Institutions In The Italian Administrative Reform Trajectory. *Public Administration*, 89(3), 738–755.
<https://doi.org/10.1111/j.1467-9299.2010.01885.x>
- Ostwald, K., Tajima, Y., & Samphantharak, K. (2016). Indonesia's Decentralization Experiment: Motivations, Successes, And Unintended Consequences. *Southeast Asian Economies*, 33(2), 139–156. <https://doi.org/10.1355/Ae33-2b>
- Pierce, J. J., Giordano, L. S., Peterson, H. L., & Hicks, K. C. (2022). Common Approaches For Studying Advocacy: Review Of Methods And Model Practices Of The Advocacy Coalition Framework. *The Social Science Journal*, 59(1), 139–158. <https://doi.org/10.1016/j.sosci.2019.06.005>
- Prasetyo, N., Fadli, M., Sn, T., & Sfaat, M. (2021). The Politics Of Indonesias Decentralization Law Based On Regional Competency. *Brawijaya Law Journal*, 8(2), 159–184. <https://doi.org/10.21776/Ub.Blj.2021.008.02.01>
- Ran, J., & Nedovic-Budic, Z. (2016). Integrating Spatial Planning And Flood Risk Management: A New Conceptual Framework For The Spatially Integrated Policy Infrastructure. *Computers, Environment And Urban Systems*, 57, 68–79.
<https://doi.org/10.1016/j.compenvurbsys.2016.01.008>
- Saad, M. S. H., Ali, M. I., Razi, P. Z., & Ramli, N. I. (2024). Flood Risk Management In Development Projects: A Review Of Malaysian Perspective Within The Sendai Framework For Disaster Risk Reduction 2015-2030. *Construction*, 4(2), 103–117. <https://doi.org/10.15282/Construction.V4i2.10592>
- Saad, M. S. H., Ali, M. I., Razi, P. Z., Ramli, N. I., & Putra Jaya, R. (2024). Exploring The Factors And Impacts Of Flash Floods Vulnerability In Various Areas Of Malaysia: A Content Analysis. *Disaster In Civil Engineering And Architecture*, 1(1), 55–82. <https://doi.org/10.70028/Dcea.V1i1.11>
- Saputra, N., Ekha Putera, R., Zetra, A., & Azwar. (2025). Innovative Capacity Building Strategies For Sustainable Disaster Risk Management: A Systematic Review, Conceptual Framework, And Future Research Directions. *E3s Web Of Conferences*, 604, 03004. <https://doi.org/10.1051/E3sconf/202560403004>
- Scharpf, F. W. (2015). After The Crash: A Perspective On Multilevel Uropean Democracy. *European Law Journal*, 21(3), 384–405.
<https://doi.org/10.1111/Eulj.12127>
- Scherpereel, J. A., Adams, M., & Jacob, S. (2018). Ratchets And See-Saws: Divergent Institutional Patterns In Women's Political Representation. *Socius: Sociological Research For A Dynamic World*, 4. <https://doi.org/10.1177/2378023117735271>
- Sharma, A., Donovan, K., Krishnamurthy, S., & Creed, M. (2022). Exploring The Scope Of Public Participation For Risk Sensitive Land Use Planning In Nepal: A Policy Review. *Sustainability*, 14(21), 14137.
<https://doi.org/10.3390/Su142114137>
- Shrestha, S., & Haarstad, H. (2023). Do Eu Goals Matter? Assessing The Localization Of Sustainable Urban Logistics Governance Goals In Norwegian Cities. *Cities*, 137(1), 104317. <https://doi.org/10.1016/j.cities.2023.104317>
- Sivarajah, U., Weerakkody, V., Waller, P., Lee, H., Irani, Z., Choi, Y., Morgan, R., &

- Glikman, Y. (2016). The Role Of E-Participation And Open Data In Evidence-Based Policy Decision Making In Local Government. *Journal Of Organizational Computing And Electronic Commerce*, 26(1-2), 64-79. <https://doi.org/10.1080/10919392.2015.1125171>
- Skouloudis, A., Tsalis, T., Nikolaou, I., Evangelinos, K., & Leal Filho, W. (2020). Small & Medium-Sized Enterprises, Organizational Resilience Capacity And Flash Floods: Insights From A Literature Review. *Sustainability*, 12(18), 7437. <https://doi.org/10.3390/Su12187437>
- Swaris, N., Halwatura, R. U., & Amaratunga, D. (2024). Policy Coherence For Resilience In Sri Lanka Coherence Of Climate Change Adaptation (Cca) Disaster Risk Reduction (Drr) And Sustainable Development Goals (Sdgs). *International Journal Of Disaster Resilience In The Built Environment*, 15(3), 450-473. <https://doi.org/10.1108/Ijdrbe-02-2023-0035>
- Thomann, E., Trein, P., & Maggetti, M. (2019). What's The Problem? Multilevel Governance And Problem-Solving. *European Policy Analysis*, 5(1), 37-57. <https://doi.org/10.1002/Epa2.1062>
- Trein, P., & Ansell, C. K. (2021). Countering Fragmentation, Taking Back The State, Or Partisan <Scp>Agenda-Setting</Scp>? Explaining Policy Integration And Administrative Coordination Reforms. *Governance*, 34(4), 1143-1166. <https://doi.org/10.1111/Gove.12550>
- Tsani, S., Koundouri, P., & Akinsete, E. (2020). Resource Management And Sustainable Development: A Review Of The European Water Policies In Accordance With The United Nations' Sustainable Development Goals. *Environmental Science & Policy*, 114, 570-579. <https://doi.org/10.1016/J.Envsci.2020.09.008>
- Uppal, C. (2021). Mobilizing Citizens At Their Level: A Case Study Of Public Engagement. *Journalism Practice*, 15(5), 601-619. <https://doi.org/10.1080/17512786.2020.1753561>
- Uyarra, E., Ribeiro, B., & Dale-Clough, L. (2019). Exploring The Normative Turn In Regional Innovation Policy: Responsibility And The Quest For Public Value. *European Planning Studies*, 27(12), 2359-2375. <https://doi.org/10.1080/09654313.2019.1609425>
- Van Popering-Verkerk, J., & Van Buuren, A. (2017). Developing Collaborative Capacity In Pilot Projects: Lessons From Three Dutch Flood Risk Management Experiments. *Journal Of Cleaner Production*, 169, 225-233. <https://doi.org/10.1016/J.Jclepro.2017.04.141>
- Venzelou, V., & Poullikkas, A. (2024). Trend Analysis Of Cross-Border Electricity Trading In Pan-European Network. *Energies*, 17(21), 5318. <https://doi.org/10.3390/En17215318>
- Wagner, B., & Fain, N. (2018). Regulatory Influences On Innovation In The Public Sector: The Role Of Regulatory Regimes. *Public Management Review*, 20(8), 1205-1227. <https://doi.org/10.1080/14719037.2017.1350282>
- Wang, W. (2017). The Effects Of Political And Fiscal Incentives On Local Government Behavior: An Analysis Of Fiscal Slack In China. *International Public Management Journal*, 20(2), 294-315. <https://doi.org/10.1080/10967494.2016.1160014>
- Widiarto, A. E., Hassan, M. S., Rusli, M. H. M., & Setiawan, E. B. (2025). The Authority Relationship Of Central And Local Governments In Forming Laws And Regulations: Between Indonesia And Malaysia. *Legality : Jurnal Ilmiah Hukum*, 33(1), 148-167. <https://doi.org/10.22219/Ljih.V33i1.36629>

- Williams, M. J. (2021). Beyond State Capacity: Bureaucratic Performance, Policy Implementation And Reform. *Journal Of Institutional Economics*, 17(2), 339–357. <https://doi.org/10.1017/S1744137420000478>
- Woiceshyn, J., Blades, K., & Pendharkar, S. R. (2017). Integrated Versus Fragmented Implementation Of Complex Innovations In Acute Health Care. *Health Care Management Review*, 42(1), 76–86. <https://doi.org/10.1097/Hmr.0000000000000092>
- Wolbers, J., Boersma, K., & Groenewegen, P. (2018). Introducing A Fragmentation Perspective On Coordination In Crisis Management. *Organization Studies*, 39(11), 1521–1546. <https://doi.org/10.1177/0170840617717095>
- Wu, G., Hu, Z., Wang, H., & Liu, B. (2025). Adding Sectors Or Strengthening Ties? Adaptive Strategies For Cross-Sector Collaboration In Disaster Governance. *Public Management Review*, 27(9), 2007–2029. <https://doi.org/10.1080/14719037.2024.2315563>
- Yu, D. J., Sangwan, N., Sung, K., Chen, X., & Merwade, V. (2017). Incorporating Institutions And Collective Action Into A Sociohydrological Model Of Flood Resilience. *Water Resources Research*, 53(2), 1336–1353. <https://doi.org/10.1002/2016wr019746>