

Information Governance, Institutional Memory, and Evidence-Based Climate Change Adaptation Policies: A Case Study of the City of Semarang

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Abstract

Urban climate adaptation requires not only policy planning but also governance capacity in managing information and policy records as the basis for evidence-based decision making. This study examines how information governance and records management influence climate adaptation policy in the Semarang City Government, Indonesia. The analysis focuses on key policy instruments, including the Regional Action Plan for Climate Change Adaptation (RAD-API) and the Regional Development Planning (RPJMD), to understand how adaptation-related information is produced, managed, and used in the policy process. This research employs a qualitative case study approach through document analysis and semi-structured interviews with government officials, planners, and technical experts. The findings reveal that although climate adaptation has been formally integrated into planning documents, information governance practices remain fragmented across institutions. Policy records, technical reports, and risk data are stored in separate systems without standardized management, clear institutional ownership, or long-term preservation mechanisms. This fragmentation creates information silos, weakens institutional memory, and limits the use of past data and policy experiences in decision making. This study argues that information governance and records management are not merely administrative functions but constitute governance capacity that shapes institutional memory, policy learning, and the sustainability of climate adaptation policy. The article contributes to public administration and records management studies by positioning information governance as a foundation for evidence-based policy and long-term urban climate governance.

Keywords:

climate adaptation policy; evidence-based policy; information governance; institutional memory; records management

Introduction

Climate change adaptation at the city level requires not only the development of planning documents but also institutional capacity to manage information systematically. In the context of public administration, records are not merely administrative documents but serve as evidence of decision-making processes, resource allocation, and the basis for evaluating public policies. Therefore, local governments' ability to manage information and policy records is an integral part of the institutional capacity required to implement evidence-based adaptation policies.

Semarang, a coastal city in Central Java, has faced increasing risks of tidal flooding, land subsidence, and rising sea levels over the past decade (Marfai, 2014). Local governments have responded by drafting various policy documents, such as the Regional Climate Change

Adaptation Action Plan (RAD-API) and the Regional Development Planning (RPJMD). However, the drafting of formal documents does not always correlate with the ability to maintain reliable, authentic, and traceable policy records. This aligns with the findings of Wessell & Thorpe, (2023) that climate vulnerability not only damages infrastructure but also threatens the sustainability of local archives due to the unpreparedness of formal storage and documentation systems. The main challenge lies in how adaptation information is recorded, stored, accessed, and utilized within the recurring policy cycle over time (Frings-Hessami, 2024). This situation indicates that the challenges of climate change adaptation lie not only in policy formulation but also in information management and the institutional memory of local governments.

Research on climate change adaptation in local governments generally focuses on institutional aspects, coordination among actors, funding, and spatial planning (Best & Burke, 2020; Bößner et al., 2020; Burke et al., 2015; Hurlimann & March, 2012). However, the dimensions of policy documentation, administrative records, and information governance as part of the government's adaptive capacity have received relatively little attention in the literature on public administration and environmental governance. In fact, various studies indicate that the success of public policy is highly dependent on the availability of well-documented, traceable, and reusable information in the process of long-term policy planning and evaluation (Flinn et al., 2009; Tansey, 2015).

From an information governance perspective, government information and records must be managed through a clear framework of policies, procedures, and institutional arrangements to ensure accountability, transparency, and the continuity of institutional memory. Without good information governance, public organizations risk data fragmentation, information silos between agencies, and the loss of policy memory when officials change or specific projects end. Tansey (2015) also notes that archival institutions often overlook physical risks posed by extreme weather, meaning policy records may be lost or damaged precisely when they are needed for long-term adaptive learning. These conditions can lead to policy discontinuity and policy amnesia, situations where new policies are not grounded in historical experience and data because records are unavailable or inaccessible. In the international standard for records management, ISO 15489 emphasizes four fundamental characteristics of records that must be ensured by public organizations: authenticity, reliability, integrity, and usability (ISO, 2016). However, based on a review of the RAD-API and Semarang RPJMD documents, these attributes are not always met.

In the context of climate change adaptation, policy records, risk data, vulnerability maps, and technical reports form part of the urban climate adaptation record, which serves as the foundation for evidence-based policy and long-term policy learning. Wessell & Thorpe (2023) found similar conditions in community archives in flood-prone areas of Australia, where climate adaptation documentation was not preserved due to the absence of a structured archival management system and a lack of technical resources. Furthermore, climate adaptation practices in Indonesian coastal cities often rely on donor-funded projects that generate various technical data, vulnerability mapping, and baseline reports. These records possess spatial, temporal, and institutional dimensions as they are utilized by various government agencies over extended periods and within recurring policy cycles. Therefore, the management of adaptation records cannot be viewed merely as a technical archival issue but as part of public governance and institutional capacity in managing public policy knowledge.

Global studies show that donor data is often not integrated into local government record-keeping systems, meaning it risks being lost once a project ends (Benson, 2009). Tansey (2015) emphasizes that without a long-term preservation strategy, adaptation records and scientific

evidence will be lost along with the conclusion of donor programs, leaving institutions without documentation of lessons learned from previous programs. A similar situation was found in Semarang, where technical data on tidal flooding and hydrodynamic modeling were stored separately by project consultants, without mechanisms for handover and long-term preservation within local government institutions.

This fragmentation of information governance poses a serious risk to the sustainability of adaptation. Information governance (IG) is understood as a framework of policies, procedures, and institutional norms that govern the creation, storage, access, and use of information within an organization (Smallwood, 2014). In the context of local government, IG serves as the foundation for cross-sectoral data integration, transparency in decision-making, and the assurance of public accountability (Smith et al., 2020). Furthermore, in the context of digital archives, (Jacobsen, 2022) argues that digital records should be viewed not merely as data (Hawkins, 2022), but as institutional memory that must be managed to prevent loss, deletion, or the inability to retrieve them in the future (Henttonen, 2019). Thus, the weakness of IG in the management of climate adaptation records in Semarang has the potential to hinder evaluation, monitoring, and long-term policy learning.

Based on this background, this article aims to analyze how information governance and records management influence the institutional capacity of local governments to formulate and implement climate change adaptation policies. This study uses the city of Semarang as a case study, focusing on records management within the RAD-API and RPJMD documents as the primary instruments of local adaptation policy. Theoretically, this study contributes to the development of public administration and archival studies by positioning information governance as the foundation of institutional memory and evidence-based policy in climate change adaptation governance at the local government level.

Literature Review

The literature on climate change adaptation in local governments generally emphasizes the importance of planning, institutional frameworks, and coordination among stakeholders in responding to environmental risks (Guiney, 2020). However, such studies often overlook the dimensions of documentation, administrative records, and information management as integral components of government adaptive capacity (Procter, 2019). In fact, many studies show that the success of adaptation policies depends on an institution's ability to generate, store, and use accurate and standardized information to support long-term decision-making processes (Bailey, 2007).

Research on climate change adaptation in local government has largely focused on institutional aspects, collaboration among stakeholders, and policy planning. Meanwhile, research in the field of archival science and records management has largely emphasized the importance of records as administrative evidence and organizational memory. However, there remains a research gap regarding the connection between information governance, records management, and climate change adaptation policies from a public administration perspective, particularly at the local government level. Most research treats records management as an administrative and technical function, rather than as part of the government's governance and institutional capacity to support evidence-based policy. Therefore, this study addresses this gap by analyzing how information governance and records management contribute to shaping institutional memory, supporting evidence-based policy, and influencing the sustainability of climate change adaptation policies in local governments.

1. Information Governance

From a public administration perspective, information governance is not only concerned with managing information as an organizational asset, but also with accountability, transparency, risk management, and the quality of decision-making in the public sector. Information governance encompasses the policies, institutional structures, standards, and procedures that govern how information is created, stored, used, shared, and preserved as evidence of government activities. Thus, information governance is a component of public administration that influences the quality of public policy and the capacity of institutions to preserve organizational knowledge (Smallwood, 2014).

Information Governance (IG) is defined as a framework of policies, procedures, and institutional arrangements for managing information in a coordinated, systematic, and accountable manner within public organizations (Smallwood, 2014). IG is used to ensure data security, information traceability, and the long-term usability of documents for (Anne, 2014; Henttonen, 2019; Smallwood, 2014). In local government, IG is directly related to cross-sectoral data integration, for example, between the Regional Development Planning Agency (Bappeda), the environmental agency, the public works agency, and the disaster management agency as well as ensuring information accessibility for policy planning and evaluation (Barbrook-Johnson et al., 2020). The absence of GI often results in “data silos,” document duplication, disrupted information flows between units, and limited dissemination of policy knowledge.

Previous studies have emphasized that IG serves as a prerequisite for knowledge management systems in government (Flinn et al., 2009; Smallwood, 2014). Without IG, public organizations cannot ensure the continuity of collective knowledge (institutional memory) (Martínez-Cardama & Pacios, 2022). This often leads to knowledge loss when officials move on or donor projects conclude. The findings of this study are consistent with these statements, as the adaptation records in the City of Semarang lack a clear ownership structure and are not formally transferred from one agency to another.

In the realm of environmental policy, IG ensures that climate data, disaster records, vulnerability maps, and technical studies are stored in standardized formats and can be reused in the preparation of planning documents such as the RAD-API, RPJMD, and regional disaster management plans Martínez-Cardama & Pacios (2022) note that failures in storing adaptation data hinder local governments from conducting longitudinal evaluations. If historical records are lost, it becomes difficult to identify risk patterns, the effectiveness of interventions, or trends in tidal flooding incidents over time. Smallwood (2014) and Pradana et al., (2025) emphasize that IG requires cross-organizational coordination, particularly on multidimensional issues such as the environment and disasters. This is particularly relevant in the case of Semarang, where adaptation documents are stored in different systems: the Bappeda server, the BPBD spreadsheet, the DLH Google Drive, and a donor consultant’s laptop. This situation indicates that the Information Governance (IG) framework has not yet been established as an overarching policy to regulate the distribution, exchange, and integration of data across departments.

From an accountability perspective, the IG provides control mechanisms to prevent data manipulation, the loss of important documents, and policy amnesia (Evans, 2017). Policy amnesia occurs when historical documents are unavailable during the formulation of new policies, leading to decisions based on intuition or individual memory rather than documented records. The findings of this study indicate that the formulation of the RPJMD did not utilize historical records of tidal flooding incidents, even though the BPBD possesses comprehensive daily data. This represents a manifestation of the absence of IG.

G also has a legal compliance dimension related to the management of government documents, including records retention, public information disclosure, and data protection (Smallwood, 2014). In Indonesia, IG actually already has a regulatory foundation through the Archives Law, the Public Information Disclosure Law, and government regulations regarding electronic-based government systems. However, its implementation in the context of climate adaptation data remains absent. There are no standard operating procedures (SOPs) for document creation, no file-naming standards, and no designated official responsible for adaptation information. IG is not merely an administrative concept but a strategic framework that determines whether adaptation records can be preserved, reused, and serve as the basis for evidence-based policy. In the case of Semarang, the absence of an IG has led to failed data integration, the loss of donor project records, poor digital preservation, and adaptation policies that are not document-based.

The findings of this study support the argument that IG should be positioned as a core component of urban climate change adaptation governance. In the context of government, information and records serve as administrative evidence, institutional memory, and the basis for policy evaluation and learning. Therefore, failures in managing information not only impact administrative aspects but also the quality of public policy, particularly in long-term, cross-sectoral policies such as climate change adaptation.

2. Institutional Memory in Climate Change Adaptation Policy

The concept of institutional memory refers to an organization's ability to store, access, and reuse knowledge derived from its past experiences. Archival records are the primary form of institutional memory because they contain documentation of policies, decisions, programs, and evaluations carried out by the organization. Without systematic records management, public organizations risk losing their institutional memory, which can lead to the repetition of policy errors, the discontinuation of programs, and weak policy learning (Flinn et al., 2009).

In public sector organizations, the loss of institutional memory often occurs due to changes in leadership, organizational restructuring, and the conclusion of externally funded projects. This situation results in important information regarding previous policies not being properly documented or being inaccessible when needed. Consequently, the policy formulation process often starts from scratch without leveraging prior data and experience, which ultimately reduces the effectiveness of public policy (ISO, 2016). Frings-Hessami, (2024) states that records are not merely legal evidence but also a source of information that provides the foundation for accountability, policy history, and institutional learning. Therefore, records must adhere to management standards, from creation, classification, and storage through to disposal. In the context of local government, these standards are implemented through archival classification systems, metadata, document retention schedules, and digital preservation policies.

Climate change adaptation policies are public policies that rely heavily on data, scientific information, risk maps, and documentation of previous programs. Therefore, climate change adaptation is a policy area that strongly requires evidence-based policy that is, policies formulated based on data, information, and evaluations of previous policies. Evidence-based policy requires governments to have robust information systems and records management to ensure that data and information can be sustainably utilized throughout the policy planning, implementation, and evaluation processes (Böbner et al., 2020; Wessell & Thorpe, 2023). However, much of the research on climate change adaptation at the local level focuses more on planning, institutional, and funding aspects, while the aspects of information governance and records management as the foundation of evidence-based policy remain relatively under-

discussed. In fact, without a robust information management system, vulnerability data, technical reports, and documentation of adaptation programs cannot be optimally utilized within the long-term policy cycle.

The concept of an urban climate adaptation record refers to all documents, data, administrative records, and technical evidence generated during the planning, implementation, and evaluation of climate change adaptation policies in urban areas. These records include risk assessment reports, vulnerability maps, baseline studies, disaster event data, and official local government action plans (Pradana et al., 2025; Wessell & Thorpe, 2023). In the context of public administration, the urban climate adaptation record is not merely a document or record (Battley, 2020), but a source of institutional knowledge that can be used for long-term policy learning.

International studies show that the existence of adaptation records is critical to the success of cities' strategies in addressing the threats of climate change, particularly flooding, sea-level rise, and heatwaves (Wannewitz et al., 2024). Adaptation records are used to monitor the effectiveness of interventions, identify priority areas, and measure government progress toward risk mitigation targets. The absence of records or the loss of historical documents often leads to policy discontinuity, a situation where new policy decisions do not draw on past experiences due to the lack of documented evidence (Evans, 2017, 2020). According to Caswell (2014), urban climate adaptation records have three main characteristics: spatial, as they relate to the location of risks; temporal, as they rely on historical data to identify trends; and institutional, as they are managed by multiple government actors and stakeholders (Barbrook-Johnson et al., 2020). Challenges arise when records are scattered across different agencies, such as environmental, planning, public works, and disaster management agencies. This fragmentation makes it difficult to track data, especially during staff turnover or changes in government.

In developing countries, adaptation records are often generated by donor projects such as those of the UNDP, GIZ, Mercy Corps, and the World Bank (Stone, 2000, 2017). Technical data such as tidal inundation maps, seawater intrusion data, and hydrodynamic models are typically generated through short-term projects. However, a common problem is the lack of formal mechanisms for data handover, meaning records do not automatically become part of local government archives. This leads to the loss of technical data when projects close or contractors complete their work, and this situation creates difficulties for future adaptation evaluations. A study (Dussauge-Laguna, 2012) emphasizes that urban adaptation records are often not in a suitable digital preservation format. Many documents exist as Excel files, WhatsApp folders, free cloud storage sites, or PDFs lacking metadata. The absence of metadata, version numbers, and record-naming standards creates uncertainty regarding the origin of information, making it difficult to determine which official data is valid for use in new planning documents. This context highlights the strong relevance of archival standards such as ISO 15489 in the management of adaptation records.

The literature also indicates that urban climate adaptation records are a key component of evidence-based policy (Pallett, 2020). When local governments have complete and well-organized records, risk analysis can be conducted on a spatial-temporal basis, resulting in more targeted policy recommendations. Adaptation records serve as the basis for determining whether interventions, such as the construction of flood barriers, mangrove restoration, or the relocation of settlements, successfully reduce residents' vulnerability. Without such records, governments often rely on heuristic methods or intuition rather than documented data.

Several authors have raised the issue of unequal access to records in urban adaptation. Several authors have raised the issue of unequal access to records in urban adaptation.

Research of (Caswell, 2014; Mulligan et al., 2017; van der Waal, 2020) indicate that coastal communities, academics, and NGOs often lack access to the government records needed for participatory evaluation. When records are not made public and remain inaccessible, the adaptation process loses transparency and accountability. This aligns with the literature on public information transparency in adaptation policies, which emphasizes the importance of verifiable and auditable documentation. Records serve not only as administrative archives but as the infrastructure of adaptation knowledge (Wessell & Thorpe, 2023). Records constitute institutional memory that ensures the continuity of policies across generations, particularly in the context of long-term climate change. This study positions information governance and records management not merely as administrative functions, but as integral components of governance capacity that influence institutional memory, policy learning, and the sustainability of climate change adaptation policies.

Research Method

This study employs a qualitative approach using a case study design to understand information governance and records management in climate change adaptation policies in the City of Semarang. The case study approach was chosen because it allows researchers to conduct an in-depth exploration of documents, institutional practices, and interactions among stakeholders within a real-world context (Burow et al., 2019). The research focuses on how adaptation records including the RAD-API, RPJMD, tidal flood data, coastal baseline studies, and donor documents are created, stored, transferred, and used in public decision-making.

The study was conducted at the Semarang City Government, with a focus on the agencies directly involved in managing climate adaptation data, namely the Regional Development Planning Agency (Bappeda), the Environmental Agency (DLH), the Regional Disaster Management Agency (BPBD), and the Public Works Agency (DPU). This location was selected based on Semarang's characteristics as a coastal city with a high risk of tidal flooding, as well as the involvement of various donor agencies in providing technical adaptation data (Kowalewski & Bartłomiejski, 2020). Informants were selected using purposive sampling, which involves selecting individuals with substantive knowledge and direct experience in the development and use of adaptation records (Kowalewski & Bartłomiejski, 2020).

The research data consists of two main types: documentary data and interview data. Documentary data includes planning documents such as the Regional Climate Change Adaptation Action Plan (RAD-API), the Regional Medium-Term Development Plan (RPJMD), tidal flood risk assessment reports, technical reports on international donor projects, and daily flood event data from the Regional Disaster Management Agency (BPBD). Documents were obtained through formal requests to relevant agencies and the collection of internal digital documents from each agency. The use of this document data aligns with the recommended record-based policy analysis method (Flinn et al., 2009). Interview data was obtained through semi-structured interviews with eight key informants, comprising the head of the Bappeda division, DLH staff, BPBD officers, DPU officials, and two technical consultants from donor projects. Semi structured interviews were chosen because they provide flexibility to explore the informants' experiences while keeping the discussion focused on key issues of information management. Interviews were conducted in person and online between May and September 2024, and all interviews were recorded and transcribed for analysis.

The data was analyzed using content analysis of documents and records lifecycle analysis based on the ISO 15489 standard. Content analysis was conducted to identify information structure, consistency in file naming, document formats, the presence of metadata, and indicators of inter-agency document flow (ISO, 2016). Records lifecycle analysis was used to

examine how records are created, stored, maintained, used, and transferred. This approach is commonly used in local government research to assess the authenticity of records and administrative accountability (Evans, 2020). Triangulation was performed by comparing information from interviews, documents, and direct observations. Member checking was conducted by reconfirming preliminary findings with informants to ensure the accuracy of data interpretation. All data were stored in separate folders and were not published without official permission from the relevant agencies. Data storage followed the principles of confidentiality, anonymity, and responsibility as recommended in qualitative public policy research (Yin, 2018).

Results and Discussion

Research findings indicate that adaptation records were created without a standardized file-naming structure, classification system, or document code. Most files are labeled only informally, such as “final fix,” “OK revision,” or “tidal flood report update,” making it difficult to track the official versions of documents. This lack of consistency is evident in RAD-API and RPJMD documents, where different versions circulate in PDF and Word formats on various staff computers. These conditions indicate that record-creation practices do not yet follow professional records creation standards. Additionally, record storage is fragmented across departments. Bappeda stores planning documents on an internal server, while BPBD uses Excel spreadsheets to record daily flood incidents. The Environmental Agency stores files in staff members’ personal Google Drives, and files from donor-funded projects are located on consultants’ laptops and in shared folders within instant messaging applications. No central repository was found that houses all documents related to climate adaptation.

Administrative observations indicate that document distribution is handled informally, primarily through WhatsApp groups, personal email, and USB drives. This process increases the risk of document loss due to staff turnover or device malfunctions. Several informants reported that documents were lost or difficult to locate during planning meetings, causing delays in the preparation of reports and adaptation evaluations.

The findings also indicate that adaptation documents produced by donor-funded projects are of higher technical quality, such as tidal modeling data, coastal flood maps, and vulnerability assessments. However, there is no formal mechanism for transferring these records to local governments. This results in data loss when projects conclude, as evidenced by two instances of missing coastal baseline folders in 2019 and 2022. Overall, the research results indicate that climate adaptation information governance in Semarang has not met the basic principles of records management, namely traceability, data integrity, and accountability. Data fragmentation prevents records from serving as the basis for evidence-based planning and risks causing “policy amnesia” when formulating new adaptation policies.

1. Information Governance Shapes Adaptive Decision-Making

The fragmentation of record-keeping directly impacts local governments’ inability to use historical data for decision-making. The processes of drafting the RPJMD and evaluating the RAD-API do not utilize tidal flood data, which is actually available in its entirety at the BPBD. Instead, strategic decisions are made through coordination meetings without reference to formal documents. This situation highlights the failure of records to function as evidence-based information. This study found that the loss of technical records causes difficulties in assessing the effectiveness of adaptation interventions. For example, the government cannot compare flood data before and after the installation of polders or the construction of coastal dikes. Consequently, adaptation policies focus only on routine programs without long-term

data-based evaluation. This phenomenon reinforces the findings (Barbrook-Johnson et al., 2020) regarding “policy amnesia” in local adaptation policies.

The absence of a donor record transfer policy also contributes to the loss of institutional memory. Documents from international projects are rarely formally handed over to the government, so data in GIS formats, baseline reports, and risk modeling are not included in local government archival systems. This practice results in adaptation projects always starting from scratch, as historical information is not available in documented form. Additionally, limited digital storage capacity poses risks to long-term preservation. Documents are merely copied between folders without backup or migration procedures. When devices fail, records are permanently lost. This phenomenon was confirmed in the loss of baseline data in 2019. This indicates the absence of a digital preservation strategy and archival retention policy.

In general, the primary impact of record fragmentation is the loss of opportunities to build knowledge-driven adaptation systems. Without records, policy learning does not occur, evaluations are weakened, and decision-making relies on individual memory rather than documented evidence. This constitutes a structural barrier to urban climate adaptation governance. Research findings reinforce the view that information governance (IG) is a fundamental element for managing adaptation records. IG provides the policy framework, procedures, and accountable parties that determine how information should be created, stored, shared, and preserved (Smallwood, 2014). absence of IG in Semarang is reflected in the lack of document naming SOPs, the absence of a digital repository, and the absence of a dedicated official overseeing adaptation record study (Henttonen, 2019) indicates that without IG, local governments will experience “information silos,” a condition where each department holds its own data but lacks integration. This finding aligns with the situation in Semarang, where flood data is held by the BPBD, vulnerability data by the DLH, and the RPJMD documents by the Bappeda. This fragmentation is a major obstacle to building a cross-sectoral adaptation system.

In the context of environmental policy, IG encompasses not only technical aspects but also institutional ones. Formal regulations regarding data ownership, record retention, document classification, donor data transfers, and metadata must be established to ensure that records possess authenticity and legal validity (McLeod, 2021). The findings of this study indicate that such legal instruments do not yet exist in the context of adaptation in Semarang. Without an IG framework, digital adaptation records are vulnerable to loss because storage is conducted on unofficial platforms such as WhatsApp and personal Google Drive accounts. The absence of systematic backups increases the risk of losing critical records when staff leave or devices malfunction. This situation highlights the need for an integrated digital preservation policy based on ISO 15489. Thus, the implementation of IG will enable local governments to establish clear document workflow mechanisms, designate record custodians in each department, and implement a centralized data storage system. This will enhance accountability, transparency, and the effectiveness of evidence-based adaptation decision-making.

2. The Role of the Recorder as Adaptive Memory

This discussion demonstrates that the records continuum model is better suited to explaining the dynamics of adaptation records in urban areas. According to (Upward, 1996), records do not end with their administrative function but continue to serve as a long-term source of information. In the case of Semarang, records of tidal flooding, vulnerability maps, and baseline studies hold repeated value for evaluating adaptation interventions. The continuum concept is relevant because adaptation records are processed within a multi-actor,

multi-document, and multi-cycle context. Documents are created through field activities, compiled into donor reports, presented at Musrenbang forums, and then used in the drafting of the RPJMD. Each stage adds a new dimension to these records. Therefore, records must be stored with complete metadata, including the document creator, creation date, file version, and owning agency.

The literature indicates that the continuum emphasizes the long-term preservation and reuse of records as institutional memory (Upward, 1996). If records are not digitally preserved, each new policy cycle will lack historical context. In the context of climate change adaptation, this hinders the ability to identify risk patterns and trends. Ultimately, the continuum helps us understand that adaptation records must be socially open, not just administratively. Records must be available not only to government officials, but also to researchers, coastal communities, and new donor agencies. This accessibility supports participatory evaluation of climate adaptation. By adopting the continuum approach, local governments can treat adaptation records as knowledge infrastructure, not merely archival documents. This approach will strengthen the consistency of adaptation policies across time periods, minimize duplication of efforts, and prevent policy amnesia.

Conclusion

This study reveals that local governments face climate change adaptation challenges not only due to technical and financial constraints but also because of weak information governance and fragmented records management. Adaptation records (such as planning documents, risk data, and technical reports) are vital as administrative evidence, institutional memory, and references for policymaking. However, these records are scattered across agencies and managed in isolated sectors, hindering access and risking loss of knowledge, which undermines policy continuity. The findings highlight that effective information governance, including systematic records management and knowledge preservation, is crucial to enhancing local governments' adaptive capacity. Therefore, records management should be seen as a strategic governance function, not just an administrative task. The study recommends local governments to establish integrated information governance systems, recognize adaptation records as strategic archives, strengthen archival institutions, develop sustainable documentation and knowledge management practices. By doing so, local governments can better support long-term climate adaptation policies. This research contributes to archival science, information management, and public administration by emphasizing the role of information governance and institutional memory in building local government resilience to climate change.

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