

Human Resource Management Strategy in Flood Mitigation in Cultural Heritage Tourism Areas

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ABSTRACT

Objectives: This study aims to analyze the human resource (HR) management strategy of the Semarang City Government in flood mitigation efforts in the Old City cultural heritage area. Although various technical measures have been implemented, the effectiveness of flood mitigation still depends heavily on the quality, coordination, and preparedness of the human resources involved.

Methodology: This research uses a descriptive qualitative approach with data collection techniques through interviews, observations, and documentation studies. Data analysis was conducted in four stages: data collection, data condensation, data presentation, and drawing conclusions.

Finding: The research results show that the Semarang City Government has implemented several stages of disaster mitigation, including documentation of cultural heritage assets, threat assessments, and flood prevention measures through the construction of polders and pump houses. However, weaknesses were still found in the vulnerability assessment stage, which lacked support from conservation experts and a solid cross-agency coordination system.

Conclusion: Overall, the human resource management strategy for flood mitigation in Kota Lama has been quite successful, but not yet optimal. Strengthening employee capacity, increasing inter-agency collaboration, and empowering the community are key to maintaining the sustainability of cultural heritage tourism destinations from the threat of flooding.

Keywords: Human Resource Management; Flood Mitigation; Disaster Management; Tourism Destination; Cultural Heritage.

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INTRODUCTION

Indonesia is a country with a high level of vulnerability to natural disasters due to its geographic location at the confluence of three major tectonic plates and the Pacific Ring of Fire (Hendrawan et al., 2025). One area at high risk of disasters is Semarang, particularly flooding and tidal flooding (Setyaningsih et al., 2024). Flooding in Semarang has become a complex issue, impacting not only the infrastructure sector but also the tourism sector, particularly cultural heritage areas like Kota Lama (Irawan et al., 2025).

Semarang's Old Town holds immense historical value and was designated a national cultural heritage site in 2020 (Kartikasari & Wibisono, 2025). This area is not merely a tourist hub, but also a symbol of cultural identity and a testament to the history of colonial urban development in Indonesia. As a cultural heritage, the Old Town represents the social, economic, and architectural journeys that play a crucial role in building the city's historic image (Shehab et al., 2024). In the context of tourism, cultural heritage sites like the Old Town hold a unique appeal, offering authentic experiences for tourists through colonial architecture, historical traces of trade, and a classic atmosphere not found in other modern destinations. Therefore, preserving this area is not only a cultural issue, but also an economic investment that supports the sustainability of the regional tourism sector.

However, the threat of disasters—particularly flooding—is one factor that threatens the sustainability of cultural heritage (Li, 2024). The impact of flooding on cultural heritage is not only physical, such as damage to building structures, weathering of materials, and subsidence of foundations, but also non-physical, such as the loss of authentic value, disruption of tourism activities, and reduced tourist interest due to decreased comfort and safety of the destination. If this damage is not addressed immediately, the process of cultural heritage degradation can become permanent and lead to the loss of historical identity (Shresta et al., 2024), which is a major tourist attraction in the city of Semarang.

In the context of management, flood mitigation in cultural heritage areas depends not only on technical infrastructure such as polders and drainage systems, but also on effective inter-agency coordination (Irawan et al., 2025), the quality of human resources (HR) handling disaster mitigation, and public awareness in protecting the environment and cultural assets (Cvetković et al., 2024). Competent HR with cross-disciplinary understanding—between conservation, disaster management, and tourism management—is a key factor in maintaining the balance between cultural preservation and risk management (Perkumienė et al., 2025). Adaptive, collaborative, and responsive HR management will strengthen the ability of local governments to preserve cultural heritage while ensuring the sustainability of tourist destinations.

Various previous studies have discussed flood mitigation in urban areas and cultural heritage areas with an emphasis on infrastructure, environmental management and spatial policy aspects. On the other hand, research on human resource management in disaster mitigation still focuses a lot on emergency response organizations in general. Until now, there is still very limited research examining how the Strategic Human Resource Management (SHRM) strategy plays a role in strengthening cross-agency coordination, developing apparatus competencies, and organizational resilience to support flood mitigation in cultural heritage tourism areas. This gap is important because the success of mitigation is not only determined by the readiness of the infrastructure, but also by the capacity of the human resources who manage it.

Therefore, this study aims to analyze how the Semarang City Government implements flood mitigation efforts to protect the Old City tourist destination, emphasizing the human

resource management dimension in the mitigation, coordination, and implementation of public policy. This approach is expected to contribute to the development of a cultural preservation-based disaster management strategy, where heritage protection and human capacity building go hand in hand to maintain the sustainability of tourism in historical areas.

Based on this background, this study answers the following questions: What is the Semarang City Government's HR management strategy in flood mitigation in the Old City Area?; How does human resource capacity affect the effectiveness of each stage of flood mitigation?; What factors hinder the implementation of the HR strategy?.

Theoretically, this research expands the study of Strategic Human Resource Management by integrating the concepts of organizational resilience, disaster leadership, and disaster mitigation management in the context of cultural heritage tourism areas. This research shows that human resource capacity, cross-organizational coordination, and competency development are the main mechanisms that bridge HR strategies with disaster mitigation effectiveness.

LITERATURE REVIEW

Human Resource Management in Disaster Management

Human resource (HRM) management in the context of disaster management is a crucial foundation for determining the effectiveness of a region's mitigation, preparedness, and recovery from disasters (Teng et al., 2024). According to Dessler (2019), HRM focuses not only on recruiting and training the workforce but also encompasses competency development, motivation, and the formation of an organizational culture that is adaptive to environmental changes and pressures (Georgescu et al., 2024). In the context of disaster management, this means building an HRM system capable of working quickly, responsively, and collaboratively when a crisis occurs.

Ibrahim et al. (2020) emphasized that disaster preparedness is largely determined by human capacity to recognize threats, understand mitigation procedures, and coordinate across levels of government and the community (Fazeli et al., 2024). Here, human resources encompass not only government officials but also volunteers, local communities, and tourism businesses directly involved in the risk management chain. Effective human resources in disaster management possess the following characteristics: (1) technical competence; (2) high emotional and social intelligence; and (3) aptitude for working across sectors and disciplines.

At the local government level, the function of human resource management in disaster management can be categorized into four main roles. First, cross-sector coordination, namely the ability to connect various agencies such as the Regional Disaster Management Agency (BPBD), the Public Works Agency, the Spatial Planning Agency, and the Tourism Agency to work towards a common goal. This coordination requires leaders with high managerial capacity and a clear communication structure to avoid overlapping tasks. Second, disaster information management, including the collection, analysis, and dissemination of risk information quickly and accurately. Human resources in this field must understand digital technologies such as geographic information systems (GIS) and early warning systems. Third, public communication, namely the ability to convey disaster information to the public and tourists in easy-to-understand language without causing panic. Fourth, community empowerment, which emphasizes collaboration between the government and local residents in protecting the environment, managing drainage, and protecting historical assets.

This approach aligns with the Strategic Human Resource Management (SHRM) theory proposed by Wright & McMahan (2011), which emphasizes the importance of aligning HR strategies with organizational goals. In the context of disaster mitigation, local government

human resources must be managed based on an adaptive strategy that combines workforce planning, competency development, and a mitigating performance-based reward system. Thus, the effectiveness of disaster management is determined not only by infrastructure, but also by the extent to which human resources understand their role within an integrated risk management system.

Organizational Resilience and Disaster Leadership

Organizational resilience refers to an organization's capability to anticipate, absorb, adapt, and recover from unexpected disruptions while maintaining its essential functions (Bartuseviciene et al, 2023). In disaster management, resilience is developed through competent human resources, continuous organizational learning, adaptive leadership, and effective inter-agency collaboration. Organizations possessing resilient human resources are better prepared to respond to disasters, coordinated emergency actions, and restore organizational performance following crisis situations. Disaster leadership complements organizational resilience by emphasizing leaders' capability to coordinate multiple stakeholders, allocate resources effectively, and facilitate rapid decision-making under uncertain conditions (Alibasic, 2025). Consequently, Strategic Human Resources Management contributes not only to workforce competency development but also to strengthening organizational resilience that ultimately improves disaster mitigation effectiveness.

Disaster Mitigation and Flood Management Strategies

Disaster mitigation is a systematic effort to reduce the risks and impacts of disasters on human life, economic assets, and the environment. In the context of flooding, mitigation is carried out through two main approaches: structural and non-structural (Shuka et al., 2024). Structural mitigation includes the construction of physical infrastructure such as embankments, polders, drainage systems, and water pumps, while non-structural mitigation focuses on regulatory and educational aspects such as outreach, training, and environmental policy enforcement.

From a tourism perspective, flood mitigation must consider the characteristics and historical value of tourist areas, especially those with cultural heritage status. Liu et al. (2025) state that mitigation strategies in heritage areas cannot be equated with those in modern areas, as every physical action must adhere to conservation principles. For example, polder construction or drainage improvements must be carried out without damaging the authenticity of the historic architecture or spatial planning. Therefore, mitigation management in areas such as Semarang's Old Town requires the involvement of conservation experts, heritage architects, and disaster technicians within a single coordination framework.

Furthermore, mitigation strategies must be supported by a long-term, risk-based planning system. Local governments need to conduct periodic risk analyses involving human resources from various sectors to update threat and vulnerability data. Training plays a key role in strengthening the technical capabilities of officials, particularly in reading risk maps, managing automatic pump systems, and communicating early warnings to the public and tourists.

Non-structural mitigation also requires the development of a culture of disaster awareness in communities surrounding tourist areas. Disaster education, evacuation training, and the formation of disaster-resilient community groups (KSB) are part of the human resource empowerment strategy. Local governments must act as facilitators, connecting communities, the private sector, and academic institutions in collective efforts to reduce flood risk. Therefore, the success of flood mitigation is measured not only by the functioning of infrastructure but also by the readiness of the people who manage it.

Management of Cultural Heritage Tourism Destinations

Cultural heritage tourism destinations have strategic value in sustainable tourism development because they contain elements of history, education, and local identity (Ariwibowo & Fibiona, 2025). Zhong et al. (2025) states that cultural heritage is not only a tourist attraction but also a symbol of the continuity of civilization. Therefore, its management must be carried out with preservation principles that combine economic, social, and cultural values.

The success of cultural heritage management depends on synergy between the government, the community, and business actors (Imperiale et al., 2024). Collective awareness of historical value and shared responsibility for site maintenance are key factors. In the context of Semarang's Old Town, the challenges faced are not only building preservation but also the ability of human resources to balance the economic function of tourism and physical heritage conservation. Many buildings are used for commercial activities such as cafes, galleries, or souvenir centers, which, if not properly managed, can accelerate structural deterioration and diminish the area's authentic value.

Human resource management plays a crucial role in addressing these challenges. Government officials must be able to mediate between conservation, economic, and social interests. Meanwhile, tourism operators and local communities need to be equipped with an understanding of environmentally friendly practices, waste management, and flood preparedness. A community-based tourism management approach can be a solution to ensure conservation goes hand in hand with the economic well-being of residents.

Thus, managing cultural heritage tourism destinations requires integration between tourism strategies and disaster mitigation policies. Competent human resources will enable cultural heritage to become more than just a tourist attraction, but also part of an adaptive system for environmental change and disaster threats (Xiao et al., 2023).

Conceptual Framework of the Research

This research's conceptual framework adopts Rahardjo's (2021) disaster mitigation model, which was developed by incorporating modern human resource management principles as proposed by Wright & McMahan (2011). This approach positions human resources as the primary driver in every stage of mitigation, from planning to preventive action.

Drawing upon Strategic Human Resource Management theory, this study assumes that human resource competencies, training, leadership, and cross-agency coordination function as strategic organizational resources. These resources strengthen organizational resilience, enabling government agencies to perform disaster mitigation activities more effectively across each mitigation stage. Consequently, the quality of documentation, threat assessment, vulnerability assessment, risk assessment, and preventive actions is largely determined by the capability of human resources to collaborate, learn, and respond adaptively to disaster risks. The main stages in this conceptual framework include:

1. Documentation and Assessment of Cultural Assets.

In the initial stages, the role of heritage experts is crucial in conducting inventories and recording the condition of historic buildings. This activity requires professionals with technical conservation skills and a mastery of digital technologies (such as GIS and photogrammetry) to support accurate risk mapping.

Threat Assessment.

This stage is carried out through coordination between agencies, such as the Regional Disaster Management Agency (BPBD), the Public Works and Housing Agency (PUPR), and the Tourism Agency. The personnel involved must be able to interpret hydrological

data and understand urban environmental dynamics to accurately map flood and tidal flood threat patterns.

2. Vulnerability Assessment.

Field personnel must be trained to assess the vulnerability of tourism buildings and infrastructure to waterlogging and humidity. This training includes material testing, foundation analysis, and socio-economic impact assessments. These technical evaluations are crucial for determining priorities for cultural asset protection.

3. Risk Assessment.

Risk analysis is conducted by considering social and economic aspects. Competent human resources need to understand the economic value-based risk assessment approach for tourism to measure potential losses from disasters, both direct (physical damage) and indirect (reduced tourist visits).

4. Preventive measure.

This stage involves collaboration between the community, business actors, and public officials. Government human resources must be skilled in designing educational programs, developing early warning systems, and fostering disaster-resilient community groups.

This conceptual framework demonstrates the dynamic relationship between human resource management and the effectiveness of flood mitigation in historic tourism areas. Competent, trained, and cross-sectoral human resources will be able to preserve cultural heritage while supporting the sustainability of the tourism economy. Therefore, this research focuses on integrating human resource management strategies into disaster mitigation systems to protect cultural heritage as part of the identity and competitiveness of tourist destinations.

METHOD

This study uses a qualitative descriptive approach with the aim of gaining an in-depth understanding of human resource management in flood mitigation in the cultural heritage area of Semarang's Old Town. The research location was selected purposively because this area is a historical area with high economic and cultural value and is also vulnerable to flooding and tidal flooding. The study involved twelve purposively selected informants consisting of three officials from the Regional Disaster Management Agency (BPBD), two officials from the Tourism Office, two officials from the Public Works Office, two cultural heritage managers, and three local community representatives. Informants were selected based on their direct involvement in flood mitigation planning and implementation. Primary data were obtained through in-depth interviews with government officials, including the Regional Disaster Management Agency (BPBD), the Public Works Agency, and the Tourism Agency, as well as with tourism business actors and local communities directly involved in tourism activities. Secondary data were collected from policy reports, official government documents, and relevant academic literature. The interview data were coded through open coding, axial coding, and selective coding following the interactive model of Miles and Huberman (2014) to identify major themes related to human resource management strategies and flood mitigation data. .collection, data were collected through semi-structured interviews, field observations, and document analysis related to flood mitigation policies and cultural heritage management, data condensation, data presentation, and drawing conclusions. To ensure the validity of the findings, the researchers applied source and method triangulation techniques. The analysis focused on the effectiveness of human resource management in each stage of mitigation, including inter-agency coordination, technical training, and community participation in

protecting cultural assets and supporting the sustainability of Semarang's Old Town tourist destination.

RESULTS AND DISCUSSION

Documentation and Assessment of Cultural Heritage Assets

Documentation of cultural heritage assets is the foundation of all mitigation measures. From a human resources perspective, this activity is not simply administrative data collection; it requires a multidisciplinary team combining expertise in history/conservation, civil engineering, geographic information systems (GIS), and data management. In the case of Semarang's Old Town, the inventory process, which ran from 1992 until the 2016 update, demonstrated basic administrative capacity but revealed specific competency gaps. First, the availability of conservation experts familiar with the characteristics of colonial building materials was very limited. As a result, technical records related to physical conditions (cracks, moisture, foundations) were often descriptive in nature, rather than quantitative or standardized for long-term vulnerability assessment.

“Data collection of cultural heritage assets has been carried out, but data updates have not been carried out in an integrated manner between agencies.” (BPBD)

Second, the human resources responsible for documentation have not yet fully adapted to modern digital technologies—e.g., drone-based mapping, photogrammetry, and integrated geospatial information systems—so the potential for periodic monitoring and time-series change analysis remains untapped. Third, human resource coordination between the units responsible for heritage (Cultural Office), technical infrastructure (DPU), and disaster management (BPBD) remains weak at the operational level: there are no shared standard operating procedures (SOPs) for data updates and the division of technical tasks. This leads to work redundancy or data gaps when personnel changes occur.

From a managerial perspective, there are concrete needs: (1) the establishment of a permanent documentation team with cross-disciplinary competencies; (2) a medium-term training program to improve the capabilities of local conservators in quantitative documentation methods; (3) the development of integrative SOPs that regulate data formats, update frequencies, and inter-agency access mechanisms; (4) budget allocation for the purchase and maintenance of digital equipment and retention incentives for key human resources to prevent them from leaving. Without this human resource strengthening, documentation will continue to be merely an administrative activity—sufficient for reporting—but less useful as a predictive basis for technical mitigation actions and budget prioritization.

These findings support Wright and McMahan (2011), who argued that Strategic Human Resource Management enhance organizational performance by developing employee competencies aligned with organizational objectives. In this study, limited documentation capacity indicates that strengthening employee competencies is essential for improving disaster mitigation performance.

Disaster Threat Assessment

Hazard assessments identify sources of risk and patterns of flooding/tidal events. Their effectiveness depends heavily on the quality of the personnel who collect, analyze, and interpret data—from hydrologists and pump technicians to weather and tidal monitoring operators. In Kota Lama, collaboration between agencies (Distaru, DPU, BPBD) demonstrates a coordinating structure, but operational practices highlight several human resource weaknesses.

First, the lack of personnel competent in local hydrometeorological analysis reduces the ability to predict micro-scale flood events (e.g., inundation in small alleys). Most assessments use historical data and manual reports, rather than local hydrodynamic models that require at least one data analyst and modeler.

“Coordination during the rainy season is already underway, but data exchange between agencies still needs to be improved so that the response is faster.”(PUPR)

Second, the human resources assigned to the monitoring unit often multitask—responsible for both infrastructure maintenance and monitoring tasks—which reduces the time needed for quality analysis. Third, risk communication skills between human resources and the community are still suboptimal; field officers are poorly trained to convey assessment results in an easily understood manner and motivate preventive action by residents/tourists. Furthermore, there are weaknesses in shift management and rotation of monitoring personnel—without a clear schedule, responses to water surges or early warnings are delayed.

To strengthen threat assessment through human resources, operational recommendations include: (1) recruitment or employment contract with at least one hydrology analyst/flood modeler placed in the city government; (2) periodic training programs for monitoring operators on sensor data interpretation and modeling fundamentals; (3) establishment of shift schedules and rapid response SOPs to ensure 24/7 personnel readiness during the rainy season; (4) risk communication modules for field officers incorporating citizen dialogue simulations; (5) data integration between units through an interoperable platform managed by dedicated IT human resources. By strengthening human resources capacity at the analytical and communication levels, threat assessment will be more proactive and operational. These findings also reflect the importance of organizational resilience, where effective coordination and information sharing strengthen institutional preparedness in responding to flood hazards (Bartuseviciene et al, 2023)

Cultural Heritage Vulnerability Assessment

Vulnerability assessments of cultural heritage buildings require technical skills and a cross-sector socioeconomic approach: building conservators, structural engineers, conservation architects, and paid community liaisons who understand how a building's social function influences risk exposure. In the case of Kota Lama, research found that this is the weakest stage—not solely due to budget, but also due to the absence of human resources specifically trained in conservation integrated with disaster mitigation.

“We still need personnel who understand the conservation of historic buildings as well as disaster mitigation” (Tourism Department).

Technically, vulnerability assessments require material inspection (moisture content, salt content, foundation condition), structural testing, and spatial function mapping (e.g., whether the building is actively used by economic enterprises, thus increasing socio-business risks). Currently, many assessments tend to be administrative in nature (presence/absence of certificates, building age) without standard technical indicators that can be measured and compared between buildings. This creates a managerial problem: it is difficult to prioritize interventions (structural repairs vs. non-technical protection) when the assessment basis is not quantitative.

From the human resources side, there are several issues: (1) a shortage of local conservators with national/international certification; (2) unclear roles between the Cultural

Service and owners/tenants regarding maintenance obligations; (3) minimal capacity for periodic vulnerability audits. In addition, working relationships between government officials and private actors (building owners, tourism operators) are often ad hoc—government human resources are not given the authority or incentive/sanction mechanisms to ensure compliance with preventive maintenance.

To close this gap, a human resource strategy is needed: establishing a field conservation unit with a combination of permanent staff and specialist consultants; developing a standard vulnerability assessment module (a quantitative technical checklist) and training audit teams to conduct regular assessments; short-term certification and scholarship programs for aspiring local conservators; developing a Memorandum of Understanding (MoU) between the government and building owners that defines maintenance roles and cost sharing; and a performance-based monitoring mechanism (the audit team reports on repair progress using KPIs). Strengthening conservation human resources is a prerequisite for vulnerability assessments to result in appropriate priority policies and measurable preventive actions. The findings reinforce Strategic Human Resource Management theory by showing that specialized competencies and continuous capacity development are critical resources for protecting cultural heritage from disaster risks (Wright & McMahan, 2011).

Risk Assessment and Risk Management

Risk assessments combine the results of threat and vulnerability assessments to determine the potential impact on a destination's assets, economy, and image. Effective human resources for this stage require risk analysis capacity, an understanding of tourism economics, and evidence-based decision-making capabilities. In Kota Lama, although a risk assessment mechanism was implemented—stating the overall risk as low—the analysis tended to be aggregated and lacked quantitative economic approaches (loss estimation, mitigation cost-benefit analysis) or long-term reputational impacts on tourism visits.

“The risk assessment so far has considered more the physical condition of the building than the impact on tourism activities.” (Destination Manager)

Human resource weaknesses are apparent at three levels: (1) the lack of tourism economic personnel capable of translating physical damage into monetary and non-monetary loss indicators; (2) the limited capacity of the crisis management team to develop tiered risk scenarios (best-case, likely-case, worst-case) that are useful for resource allocation decision-making; (3) the absence of a regular cross-stakeholder risk evaluation forum, so that the perspectives of tourism business actors and local communities are not represented in the risk matrix.

Managerially, this requires the formation of an integrated risk assessment team involving tourism economists, public budget planners, and risk analysts; the use of quantitative methodologies (probabilistic risk assessments, loss-estimation models) managed by trained human resources; a mechanism for periodic stakeholder meetings to validate risk assumptions and mitigation priorities; and the integration of risk assessment results into the city's mid-term budget planning. Furthermore, capacity building for decision-makers (official training on risk-based budgeting) will ensure resource allocation is based on real risk priorities, not merely political urgency. This findings is consistent with organizational resilience theory, which emphasizes that effective risk assessment depends on competent human resources and collaborative decision-making across organizations (Bartuseviciene et al, 2023).

Prevention and Control Measures

Preventive measures include structural mitigation (polders, pumps, drainage) and non-structural mitigation (socialization, regulations, training). Successful implementation depends heavily on human resource management: the ability to design programs, coordinate operations, supervise implementation, and monitor and evaluate (M&E). In Kota Lama, structural initiatives have demonstrated technical results, but weaknesses in human resource management hinder the optimization of benefits.

“Pumps and polders are quite helpful in reducing inundation, but their success still depends on the coordination of officers on the ground.” (PUPR)

Structurally, the operation and maintenance of pump houses and polders require a scheduled technical team, a rotating operator system, and preventive maintenance personnel. Research has found that some operators also handle other tasks, reducing the frequency of preventive maintenance. Non-structurally, public education programs and policies such as weekend vehicle restrictions require field facilitators, communication coordinators, and a public behavior evaluation team. However, outreach workers often lack the necessary training and behavioral change communication modules, resulting in sporadic interventions that do not trigger normative change (e.g., littering).

Human resource requirements for preventive measures include: (1) a pump/polder operational team with clear job descriptions, a maintenance schedule, and an ongoing technical competency program; (2) a community engagement unit consisting of trained facilitators, content creators for awareness campaigns, and behavioral monitors; (3) an M&E team capable of measuring the effectiveness of non-technical interventions through measurable indicators (reduction in waste in drainage systems, level of policy compliance); (4) an incentive/reward scheme for employees and communities that demonstrate high mitigation performance. In addition, technology integration (automated sensors, monitoring dashboards) must be accompanied by operational training so that human resources can interpret data and drive action. Without investment in strengthening the capacity of operational and community human resources, preventive measures risk becoming short-term programs without sustainability. These results indicate that disaster mitigation effectiveness depends not only on physical infrastructure but also on strategic human resources management through continues training, coordination, and community engagement (Wright & McMahan, 2011).

Obstacles in the Implementation of Mitigation

The main obstacles are:

- (1) Overlapping regulations between agencies;
- (2) Low public discipline in maintaining cleanliness;
- (3) Geographical conditions and land subsidence; and
- (4) Lack of competent disaster human resources.

*“Public awareness in maintaining the cleanliness of waterways is still a major challenge”.
(Community)*

From a management perspective, this problem indicates that the success of flood management depends not only on infrastructure, but also on organizational effectiveness and a collaborative work culture among public officials. The identified barriers demonstrate that

organizational resilience cannot be achieved without strengthening human resource capacity, inter-agency collaboration, and adaptive organizational practices (Bartuseviciene et al, 2023).

CONCLUSION

This study aimed to analyze the human resource management strategy implemented by the Semarang City Government in flood mitigation within the Semarang Old Town cultural heritage area. The findings indicate that flood mitigation has been implemented through five main stage : documentation of cultural heritage assets, threat assessment, vulnerability assessment, risk assessment, and preventive measures. Among these stages, vulnerability assessment remains the weakest due to the limited availability of conservation experts, insufficient technical competencies, and weak cross-agency coordination. These findings demonstrate that the effectiveness of flood mitigation depends not only on physical infrastructure but also on the quality of human resources management.

From a theoretical perspective, this study extends the application of Strategic Human Resource Management in disaster mitigation by showing that employee competencies, inter-agency collaboration, and organizational resilience are essential for improving mitigation effectiveness in cultural heritage tourism areas. Pratically, the findings suggest that local governments should strengthen human resources capacity through continuous training, competency development, integrated coordination mechanisms, and greater community participation to enhance disaster preparedness while preserving cultural heritage.

This study is limited to a single cultural heritage tourism destination, which may restrict the generalizability of the findings to other context. Future research is encouraged to conduct comparative studies across different heritage tourism destinations or employ mixed-method approaches to further examine the relationship between Strategic Human Resource Management, organizational resilience and disaster mitigation effectiveness.

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