

THE ROLE OF COLLABORATIVE GOVERNANCE IN DISASTER RESPONSE: INSIGHTS FROM TRANSNATIONAL EMERGENCY MANAGEMENT

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Abstract

This study explores the role of collaborative governance in enhancing disaster response effectiveness, particularly within the context of transnational emergency management. As disasters increasingly transcend borders due to globalization and climate change, conventional state-centric approaches often fall short in addressing complex, multi-jurisdictional crises. Drawing upon a comprehensive literature review, this research synthesizes key theoretical perspectives and empirical findings on collaborative governance mechanisms, including public-private partnerships, intergovernmental coordination, and cross-sectoral stakeholder engagement. The study highlights how trust-building, joint decision-making, and institutional flexibility contribute to improved coordination, resource sharing, and resilience in transboundary disaster contexts. Moreover, it identifies challenges such as power asymmetries, institutional fragmentation, and cultural differences that may hinder collaboration. The findings offer insights for policymakers and emergency managers seeking to build more adaptive and inclusive disaster governance frameworks. The study concludes that collaborative governance is not merely a normative ideal but a practical necessity in managing transnational disasters effectively.

Keywords: Collaborative governance, disaster response, transnational emergency management, intergovernmental coordination, public-private partnerships, resilience, cross-border collaboration

INTRODUCTION

Natural and non-natural disasters are ongoing phenomena that often have a far-reaching impact on the lives of global communities. Amidst the increasing frequency and intensity of disasters, the need for a faster, more

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effective, and coordinated response is becoming increasingly urgent. Countries around the world face similar challenges in managing disasters, whether caused by climate change, geological hazards, pandemics, or socio-political crises. In such situations, the emergence of collaborative governance models as an approach capable of addressing the complexities of disaster management is gaining increasing attention. Collaborative governance enables the involvement of actors across sectors and jurisdictions, including governments, non-governmental organizations, the private sector, and civil society, to jointly formulate strategies, share resources, and implement actions in response to emergency situations (Enjolras et al., 2024).

In the context of disasters, collaborative governance is particularly relevant because disasters often transcend administrative or national boundaries (Oh et al., 2020). Many large-scale emergencies require transnational emergency management, whether in the form of humanitarian assistance, information exchange, logistics, or technical interventions. This phenomenon positions collaborative governance as a crucial pillar in creating coordination mechanisms that extend beyond the local or national level to the international level. The application of collaborative governance on a transnational scale not only strengthens response effectiveness but also enriches the learning process between countries in dealing with disasters with their complex and dynamic characteristics.

However, implementing collaborative governance in disaster management is not simple. Various challenges arise, including differing interests between actors, lack of trust, limited institutional capacity, and differences in legal and policy frameworks across countries. Furthermore, political dynamics and power relations also influence the extent to which collaboration can be effectively established. Practically, the success of collaborative governance in disaster response depends heavily on a clear framework, inclusive leadership, adaptive coordination mechanisms, and communication and information infrastructure that can support sustainable collaborative processes (Aung & Lim, 2021). Therefore, research on the role of collaborative governance in disaster response, particularly in a transnational context, is crucial for understanding how cross-border collaboration can be realized effectively.

Previous studies have extensively discussed the roles of specific actors in disaster response, but have limited their focus on the dynamics of collaboration between actors from a governance perspective, particularly on a transnational scale. Traditional hierarchical and fragmented approaches to

disaster management have demonstrated various limitations, particularly in responding to transnational and multidimensional disasters (Adaptive Learning in Cross-Sector Collaboration during Global Emergency: Conceptual Insights in the Context of the COVID-19 Pandemic | Emerald Insight, n.d.). Therefore, a collaborative governance approach is considered a more adaptive and responsive alternative to address these challenges. This research aims to illustrate how collaborative governance shapes inclusive and sustainable cooperation patterns in the context of transnational disaster management. This research also aims to identify factors that support and hinder the creation of effective collaborative governance in the context of humanitarian crises.

Using a literature review as the primary approach, this research will examine empirical and conceptual findings from a variety of transnational disaster management cases. This includes studies of responses to major natural disasters such as tsunamis, earthquakes, and tropical cyclones, as well as global health crises like the COVID-19 pandemic. It will also examine how international organizations such as the UN, ASEAN, and donor agencies play a role in facilitating collaboration between countries and sectors. The primary focus will be on the processes, structures, and outcomes of collaborative governance, including how decisions are made collectively, how information is managed and disseminated, and how conflicts or differences between actors are resolved in crisis situations (Parker et al., n.d.).

Furthermore, this research considers the influence of information technology, communication systems, and digital platforms in supporting collaborative processes. In today's digital era, technology has become a crucial link in accelerating the flow of information, monitoring situations in real time, and coordinating actions on the ground. Technological developments have helped shape a new landscape in disaster governance, where collaboration is no longer limited to physical meetings or lengthy bureaucratic processes. Through digital infrastructure, disaster responses can be carried out more quickly, inclusively, and coordinated. However, this also raises new challenges related to data security, system interoperability, and inequality in technology access between countries, which must be considered in establishing collaborative governance (Dai & Azhar, n.d.).

It is also important to highlight the dimensions of justice and inclusivity in collaborative governance. In disaster situations, vulnerable groups such as women, children, people with disabilities, and indigenous communities are often more marginalized. Therefore, cross-actor collaboration must ensure that the voices of these groups are represented in the decision-making

process. Collaborative governance aims not only to increase response efficiency but also upholds the values of social justice and sustainability. This is crucial to ensure that post-disaster recovery and reconstruction processes truly address the needs of the community as a whole and do not exacerbate existing social inequalities.

Overall, this research seeks to address the urgent need for a deeper understanding of collaboration mechanisms in transnational disaster responses. By examining various case studies and theories related to collaborative governance in transnational emergency management, this research aims to provide conceptual and practical insights that can be used as a reference by policymakers, disaster practitioners, and the international community. Amid the increasing complexity of disasters in the era of globalization, an understanding of collaborative governance is crucial in establishing a more resilient, inclusive, and sustainable emergency response system. This research is expected to contribute to strengthening the literature on governance and disasters and open new spaces for discussion regarding the future direction of disaster risk management in an increasingly interconnected world.

RESEARCH METHOD

This research uses a literature review as the primary approach to understanding and analyzing the role of collaborative governance in disaster response, with a specific focus on transnational emergency management practices. This literature review was chosen because it allows researchers to explore various theoretical and empirical perspectives developed in previous studies related to collaboration among stakeholders in disaster management, including governments, international institutions, the private sector, and civil society. Using this method, the research not only identifies general trends and patterns but also examines the complexities and challenges that arise in a transnational context.

Data collection was conducted through a systematic review of various academic sources, such as scientific journals, books, international agency reports, and policy documents relevant to the theme of collaborative governance and disaster management. The literature used encompasses publications spanning the past one to two decades to ensure relevance to the latest dynamics and developments in global emergency management practices. The literature selection process was carried out carefully, considering the credibility of the sources, the geographic context, and the

depth of analysis of cross-sectoral and inter-national collaboration in emergency situations.

Data analysis was conducted using a thematic approach, categorizing the collected literature based on key themes such as collaborative structures, the role of cross-border actors, coordination mechanisms, and obstacles and opportunities in transnational collaboration. The findings of this analysis are interpreted to provide insights into how collaborative governance principles can strengthen the effectiveness of disaster responses, particularly when challenges are transnational. With this approach, the research is expected to provide solid conceptual contributions and practical implications for policymakers and emergency management practitioners at the international level.

RESULT AND DISCUSSION

Dynamics of Transnational Disaster Response

Transnational disasters are an increasingly common phenomenon in the era of globalization, where the impact of an event is no longer limited to a single country but rather transcends national and jurisdictional boundaries. Real-world examples of transnational disasters include pandemics like COVID-19, haze from forest fires that spread to neighboring countries, and earthquakes or tsunamis that affect more than one administrative region. These types of disasters create extraordinary complexity in mitigation, emergency response, and recovery processes, as they must involve multiple actors across countries with differing backgrounds, interests, capacities, and legal systems (Dai & Azhar, n.d.).

The key characteristic of transnational disasters is their broad scale of impact, which transcends political boundaries. In the case of a pandemic, for example, the spread of disease can occur rapidly through international trade and human mobility, requiring a simultaneous and synchronized response from many countries (Boersma et al., n.d.). Similarly, transboundary haze from peatland burning in one country can blanket neighboring countries, disrupting public health, economic activity, and education. Meanwhile, geophysical disasters such as earthquakes or tsunamis that occur in border areas, such as in the Indian Ocean, require well-coordinated early warning systems and emergency responses between affected countries. This transboundary nature makes transnational disasters a challenging issue in the context of modern disaster management.

The main challenge in managing transnational disasters is coordination between countries and across jurisdictions. Each country has a different system of government, emergency response protocols, resources, and political interests (Son et al., 2024). In many cases, differences in safety standards, logistical capacity, and communication systems hinder a unified response. Furthermore, the issue of sovereignty presents a challenge, as not all countries are open to external involvement in disaster management within their borders. In the context of forest fires, for example, countries at the source of the haze often reject intervention from affected neighboring countries, citing their sovereignty over their territory. This political tension can slow collective decision-making and hinder the mobilization of assistance and information needed to effectively address the disaster.

Furthermore, cross-jurisdictional coordination requires not only intergovernmental agreements but also the involvement of non-state actors, such as non-governmental organizations, the media, and local communities. In emergency situations, delays in the exchange of data and information between countries can be fatal (Baniya, 2022). Therefore, shared information systems and integrated communication mechanisms are essential to build trust and ensure synchronized actions. However, in reality, differences in technology, language, and strategic interests make these efforts challenging. A legally and morally binding regional or global framework is needed to foster more robust and responsive coordination.

In this context, the role of international organizations is crucial as facilitators of coordination, resource providers, and collective policymakers in responding to transnational disasters. Organizations such as the United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA) are mandated to coordinate the global humanitarian response in crisis situations, including natural disasters and armed conflict. UN OCHA plays a strategic role in connecting humanitarian actors, strengthening the capacity of affected countries, and facilitating the development of integrated response strategies. In the case of a pandemic, the World Health Organization (WHO) plays a crucial role in providing medical guidance, coordinating vaccine distribution, and regulating the flow of information on global disease developments. The WHO also ensures that countries follow international protocols to prevent further spread.

In Southeast Asia, ASEAN, through the ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre), has established a regional mechanism for collective disaster management. The

AHA Centre is tasked with coordinating assistance among ASEAN member states, conducting training, and compiling a regional disaster risk database. Although its capacity is not yet as robust as that of a global institution, the presence of the AHA Centre demonstrates the importance of a regional approach in responding to transnational disasters that have both local and global characteristics. One concrete example is during typhoons or earthquakes in Southeast Asia, where the AHA Centre activated the Emergency Operation Centre and collectively coordinated aid from member states, accelerating the response and distribution of logistics to affected areas (Haddad, 2022).

However, the effectiveness of international and regional organizations depends heavily on the political will of member states to actively participate, provide transparent data, and authorize multinational intervention when needed. Sometimes, even when organizations are prepared with resources and action plans, bureaucratic barriers and mistrust between countries remain major obstacles. This is where humanitarian diplomacy becomes a crucial instrument for bridging differences and building consensus in emergency situations. Strengthening the institutional capacity of international organizations is also essential to enable them to respond to large-scale disasters quickly, efficiently, and sensitively to the local context.

In facing the dynamics of future transnational disasters, strengthening collaborative systems based on trust, transparency, and equity is urgent. Countries can no longer afford to be exclusive in responding to disasters, as their consequences are no longer local but have global impacts. The use of digital technologies, such as geospatial information systems and cross-border online coordination platforms, must be integrated into every disaster management process. Furthermore, strengthening cross-sectoral collaboration mechanisms between governments, international institutions, the private sector, and civil society will strengthen collective resilience in the face of increasingly complex future disaster threats (Cheng & Zhao, 2025). In this context, the dynamics of transnational disaster response demand a paradigm shift from reactive responses to proactive collaboration, making global solidarity the primary foundation of shared resilience.

Collaborative Governance Models and Practices in Global Emergency Management

In the context of global emergency management, collaborative governance has become an increasingly crucial approach for addressing

complex, transnational disasters. This governance model emphasizes the importance of coordination across actors, including national governments, international institutions, non-governmental organizations, and the private sector, who share responsibilities, information, and resources in responding to crisis situations. In practice, collaborative governance not only facilitates operational efficiency in disaster response but also strengthens solidarity between nations in the face of threats that transcend territorial boundaries. This approach emphasizes deliberation, mutual trust, and consensus as the foundation of cooperation, thus encouraging the active involvement of all stakeholders in an inclusive decision-making process that adapts to crisis dynamics (McNaught, 2024).

One key case study illustrating the importance of collaborative governance in global emergency management is the response to the COVID-19 pandemic. This pandemic demonstrates the vital role of interstate coordination mechanisms in managing global health crises. Organizations such as the World Health Organization (WHO), GAVI, and COVAX have been central to coordinating vaccine distribution, developing health policy guidelines, and providing relevant epidemiological data to all member countries (Oh & Lee, 2020). Despite facing challenges in terms of data transparency, the politicization of health issues, and unequal access to vaccines, this multilateral collaboration demonstrated a governance framework that enabled an integrated response across borders. Countries also shared policy experiences, from lockdowns and contact tracing systems to public communication strategies, strengthening collective capacity in handling the pandemic. In this context, collaborative governance practices were demonstrated through inter-state dialogue, real-time data exchange mechanisms, and coordination in collective procurement of medical equipment.

Another example reflecting collaborative practices in emergency management is the 2004 Indian Ocean tsunami. This disaster prompted a massive international response, involving more than 60 countries and hundreds of international organizations in post-disaster humanitarian relief and reconstruction efforts. The UN, through the Office for the Coordination of Humanitarian Affairs (OCHA), played a crucial role in uniting various actors through cluster coordination mechanisms. This practice emphasizes specialization and the division of roles according to organizational capacity, such as health, logistics, water and sanitation, and protection. Donor countries, international financial institutions, and local and global NGOs work within a single coordination platform, ensuring resource efficiency and

avoiding duplication of aid. Collaborative governance here is not just about technical coordination, but also about cultural sensitivity, cross-sector trust, and a long-term commitment to sustainable recovery. The success of the tsunami response further strengthens the argument that collaborative governance based on commitment and open communication is a vital tool in addressing global disasters (Wang & Ran, 2023a).

Meanwhile, the experience of dealing with annual flooding in the Mekong River basin also provides important lessons regarding regional collaborative governance. The Mekong River Commission (MRC) is the primary institution facilitating technical cooperation between countries such as Laos, Thailand, Cambodia, and Vietnam. In this context, collaborative governance takes the form of a technocratic dialogue forum focused on disaster risk mitigation, joint water resource management, and a shared data-based early warning system. Technology plays a crucial role in enabling the real-time exchange of hydrological information, where data on water levels, rainfall, and river discharge are collected through sensor and satellite systems, then processed and disseminated across member countries. This mechanism enables individual countries to take preventive action earlier, while strengthening coordination in spatial planning, dam construction, and ecosystem management across borders. This practice demonstrates that collaborative governance in emergency management does not always take the form of post-disaster response, but also takes the form of structured and coordinated prevention efforts through the sharing of technology, knowledge, and institutional capacity.

Multilateral coordination mechanisms form the backbone of collaborative governance practices. In a global context, institutions such as the WHO, UNDRR (United Nations Office for Disaster Risk Reduction), and the ASEAN Coordinating Centre for Humanitarian Assistance (AHA Centre) facilitate regional and global cooperation in developing operational standards, interoperability of emergency response systems, and mobilizing aid across borders. Through platforms such as the ASEAN Agreement on Disaster Management and Emergency Response (AADMER), Southeast Asian countries have agreed to principles of cooperation and collective preparedness, reflecting the formal adoption of collaborative governance principles. This mechanism facilitates the alignment of national and regional policies in disaster risk management and supports the involvement of non-state actors such as technology companies, media outlets, and local communities. The role

of non-state actors in this governance is significant, as they bring technical expertise, innovation, and flexibility to respond to evolving emergency needs.

Technology and data sharing are key factors in supporting the effectiveness of cross-border collaborative governance. Geographic information systems (GIS), big data analytics, artificial intelligence for disaster modeling, and digital platforms for real-time coordination are crucial instruments in accelerating decision-making. During the COVID-19 pandemic, various global dashboards, such as those developed by Johns Hopkins University and the WHO's digital platform, have enabled global transparency and openness of information. Furthermore, the use of technologies such as drones, satellite imagery, and IoT sensors in managing physical disasters like floods and earthquakes has enabled greater operational efficiency and increased instant response capacity. However, the successful implementation of these technologies also depends on countries' willingness to share data openly, bridge the digital divide, and ensure cybersecurity and personal data protection (Wolf-Fordham, 2020).

Thus, collaborative governance practices in global emergency management have proven to be an adaptive, participatory, and solution-based approach across sectors and countries. Its success is determined by the extent to which the actors involved are able to build trust, share knowledge, and share a shared vision in addressing shared risks. Case studies such as the response to COVID-19, the Indian Ocean tsunami, and flood management in the Mekong River demonstrate that collaborative governance is not only crucial in crisis contexts but also serves as a strategic framework for building sustainable global resilience. Collaboration supported by technology, facilitated by multilateral institutions, and grounded in a spirit of solidarity is the main foundation for creating a resilient emergency response in a world that is increasingly interconnected and vulnerable to various forms of disaster.

Challenges of Implementing Collaborative Governance in Disaster Response

The implementation of collaborative governance in the context of disaster response has become an increasingly relevant approach as the complexity and scale of disasters, particularly those of a transnational nature, increases. However, while conceptually collaborative governance offers an inclusive and participatory framework for crisis response, the implementation of this approach faces various serious challenges. Three of the most common challenges in disaster response are differences in political and administrative systems across countries, imbalances in resources and institutional capacity,

and issues of trust, national interests, and bureaucracy (Xing & Xing, n.d.). These three issues not only complicate coordination between actors but can also undermine the effectiveness of cross-sectoral and cross-jurisdictional collaboration in responding to disasters quickly and effectively.

Differences in political and administrative systems across countries are a major obstacle to building a functional and sustainable collaborative framework. Countries have varying government structures, including centralized, federal, democratic, authoritarian, or hybrid. These differences influence how authority is delegated, how decisions are made, and how responsibilities are shared between central and local governments. In the context of disaster response, these inequalities often hinder cross-country coordination due to varying operational procedures, levels of decentralization, and reporting systems. For example, countries with hierarchical and procedural bureaucratic systems may take longer to grant permits or approve international cooperation, while others may adopt a more flexible, network-based approach. This asynchronous system creates coordination gaps that can slow aid delivery, complicate information exchange, and increase the risk of failure in collective disaster management (Mukhlis & Perdana, 2022).

Furthermore, imbalances in resources and institutional capacity also pose serious challenges to the implementation of collaborative governance. Not all countries or actors involved in disaster response have equal human, technological, financial, or infrastructure resources. Developing countries often rely on external support to respond to major disasters, while developed countries may have greater capacity to manage crises. This imbalance creates an unequal power dynamic in collaborative processes (Wang & Ran, 2023b). Countries or actors with greater resources tend to dominate decision-making, while weaker actors often become implementers or are even marginalized from the planning process. This capacity gap is also evident in the ability of local institutions to access information or utilize cutting-edge disaster response technology, resulting in unequal collaboration. When collaborative structures are not designed to equitably accommodate these capacity differences, the effectiveness of collaboration is questionable, and potential synergies between actors can be hampered by structural inequalities.

Furthermore, issues of trust, conflicts of national interest, and bureaucratic obstacles complicate the implementation of collaborative governance. Collaboration in disaster management requires mutual trust among the actors involved. However, in practice, relations between countries or agencies are often clouded by geopolitical tensions, historical conflicts, or

disagreements over objectives and strategies. Each country's national interests can be a major obstacle to designing a truly inclusive response strategy (Alam & Ray-Bennett, 2021). For example, a country experiencing a disaster may be reluctant to accept international aid due to concerns about foreign interference or threats to sovereignty. Conversely, donor countries may condition aid on specific political or economic interests. Meanwhile, rigid bureaucracy and lengthy administrative procedures can slow decision-making and complicate the coordination process. Administrative requirements, diplomatic clearances, and accountability mechanisms are often not aligned, leading to delays in aid distribution or uncertainty in program implementation.

The implications of these challenges are significant. If not managed effectively, differences in political systems can exacerbate policy fragmentation and weaken consensus in emergency decision-making. Inequality in resources can lead to one-sided dependency and exacerbate distrust among actors. Meanwhile, conflicts of interest and bureaucratic obstacles can erode the spirit of collaboration and slow down responses at crucial times. In this context, the success of collaborative governance depends heavily on the existence of mechanisms capable of bridging these differences, building trust, and creating a coordination platform that is adaptive and responsive to local and global dynamics (Ansell et al., 2021).

Therefore, while collaborative governance offers many advantages in disaster response, its implementation cannot be separated from existing structural and institutional challenges. Systematic efforts are needed to align policies across countries, strengthen the capacity of local institutions, and build more efficient and equitable cross-border coordination systems. An effective collaborative approach must be based on the principles of equity, transparency, and accountability, and complemented by a framework that allows for adaptation to diverse political and social contexts. Only then can collaborative governance in disaster response truly serve as a solution that addresses the need for inclusive, rapid, and sustainable disaster management.

Strategies for Improving the Effectiveness of Collaborative Governance

Improving the effectiveness of collaborative governance in the context of transnational disaster management is an urgent strategic issue, given the complexity and scale of the challenges faced in emergency situations that transcend geographical and political boundaries. Amidst the increasing intensity and frequency of disasters, both natural and man-made, the need to build more effective, responsive, and inclusive collaborative governance

mechanisms is crucial. This collaborative governance involves not only directly affected countries but also various international stakeholders, donor agencies, non-governmental organizations, and local communities, which are essential components of the emergency response architecture (Bianchi et al., 2021). Therefore, strategic efforts to strengthen the legal framework, build shared capacity across borders, and leverage advances in digital technology are key foundations for optimizing such collaboration.

One fundamental step in increasing the effectiveness of collaborative governance is through strengthening cross-border legal and policy frameworks that can unify the basic principles of disaster coordination and response (Torfing & Ansell, 2020). To date, numerous challenges have arisen from the lack of harmonization of regulations between the countries involved, whether regarding aid access, the movement of rescue teams across regions, or mechanisms for the exchange of crucial information. Therefore, a multilateral agreement governing standard operating procedures and coordination protocols in emergency situations is crucial. Initiatives such as the ASEAN Agreement on Disaster Management and Emergency Response (AADMER) or other regional collaborations can serve as concrete examples of how strengthening the legal framework can create a clearer and more structured space for cooperation. Furthermore, adapting national policies to the international legal framework is also necessary to avoid legal conflicts during cross-border collaboration. This policy harmonization not only supports a speedy response but also ensures the long-term sustainability of cooperation in disaster risk reduction.

In addition to strengthening regulations, capacity building and cross-border training are also vital strategies for enhancing the effectiveness of collaboration. Unequal institutional capacity and human resources across countries are often major obstacles to coordination during crises. To address this, a jointly designed capacity-building program is needed, encompassing technical disaster management training, emergency response simulations, knowledge exchange, and local institutional strengthening programs. This collaborative training could be facilitated by international organizations such as UNDRR or the IFRC, which have the capacity to bridge the competency gap between countries. Furthermore, involving universities and research institutions in capacity-building programs would enrich approaches based on scientific evidence and the latest technological innovations. Furthermore, the formation of multinational rapid response teams could also be part of this training strategy, with representatives from each member country trained in

the same operational standards, enabling them to be immediately deployed in the event of a transboundary disaster (Alzoubi & Ahmed, 2020).

Another important strategy for promoting the effectiveness of collaborative governance is the utilization of digital technology, particularly in providing efficient, real-time communication and coordination platforms. In many disasters, the main obstacle to collaboration is the lack of access to fast and accurate information, as well as delays in decision-making due to a lack of data integration. With an integrated digital platform accessible to all relevant parties, the process of exchanging data such as disaster maps, aid logistics, refugee status, and infrastructure conditions can be carried out transparently and quickly. Technologies such as geographic information systems (GIS), crisis dashboards, and cloud-based disaster management applications are becoming increasingly relevant solutions. Furthermore, communication technologies such as virtual coordination groups, secure communication channels, and digital early warning systems also play a crucial role in streamlining communication between actors across borders. The implementation of these platforms not only supports a faster and more coordinated response but also strengthens accountability and transparency in the disaster management process (Christensen & Lægreid, n.d.).

In its implementation, the integration of these three strategies requires an adaptive approach oriented toward continuous learning. No single collaborative governance model fits all disaster contexts, as socio-political conditions, institutional cultures, and levels of preparedness vary widely across countries. Therefore, strategies to increase effectiveness must be tailored to each region's specific characteristics, while adhering to the fundamental principles of solidarity, subsidiarity, and collective resilience. It is also crucial to have a mechanism for periodic evaluation and reflection on the collaborative process so that any shortcomings can be systematically addressed. The participation of civil society and local actors should also be considered in this process, as the success of collaboration depends not only on formal structures but also on a shared level of trust and willingness to work inclusively and equitably.

Overall, strategies to increase the effectiveness of collaborative governance in transnational disaster response are not solely technical or administrative but also reflect underlying political commitment and humanitarian values. In a world increasingly impacted by climate change, rapid urbanization, and geopolitical instability, building robust and adaptive collaborative systems is essential. Efforts to strengthen legal frameworks,

enhance cross-border capacity, and utilize digital technology must be viewed as a complementary and supportive whole, fostering more resilient and sustainable governance. If implemented consistently and inclusively, international collaboration in disaster management will not only be more effective but also reflect true global solidarity.

CONCLUSION

This research highlights the importance of collaborative governance in disaster response, particularly in the context of transnational emergency management. In crisis situations involving multiple actors across national borders, a collaborative approach is crucial for coordinating actions, avoiding overlapping roles, and maximizing the utilization of resources and institutional capacity. By involving governments, international organizations, NGOs, the private sector, and civil society within an inclusive governance framework, disaster responses become more rapid, effective, and sustainable. This collaboration not only strengthens local capacity but also fosters cross-border learning and innovation in crisis management systems.

This study found that the success of collaborative governance depends heavily on trust between actors, a clear regulatory framework, and transparent communication and coordination mechanisms. Furthermore, adaptive and participatory leadership is key to creating synergy amidst differing interests and organizational cultures. In a transnational context, it is also important to consider political and diplomatic factors between countries that can influence the intensity and quality of collaboration. Therefore, collaborative governance is not only about technical cooperation, but also about building mutually beneficial socio-political relationships in emergencies.

Overall, this study confirms that collaborative governance can provide a strong foundation for improving emergency preparedness and response capacity globally. However, to optimize its role, long-term commitment from all parties involved is required, including in terms of financing, institutional strengthening, and human resource capacity building. In a world increasingly vulnerable to transboundary disasters due to climate change, urbanization, and global mobility, collaborative approaches across sectors and countries are no longer an option but a strategic necessity for building collective resilience to future disasters.

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