



**ROLES OF CIVIL SOCIETY ORGANIZATIONS IN THE
FLOOD RECOVERY IN NAY PYI TAW, MYANMAR**

PHYO ZAW AUNG

**MASTER OF ARTS
IN
INTERNATIONAL DEVELOPMENT**

**SCHOOL OF SOCIAL INNOVATION
MAE FAH LUANG UNIVERSITY**

2025

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**THIS THESIS IS A PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
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INTERNATIONAL DEVELOPMENT**

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2025

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THESIS APPROVAL
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FOR
MASTER OF ARTS
IN
INTERNATIONAL DEVELOPMENT

Thesis Title: Roles of Civil Society Organizations in the Flood Recovery in
Nay Pyi Taw, Myanmar

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ACKNOWLEDGEMENTS

First and foremost, I want to express my deepest gratitude to my advisor, Asst. Prof. Dr. Wanwalee Inpin. Thank you for your invaluable guidance, immense patience, and academic direction throughout this journey. Your insightful feedback and constant encouragement were instrumental in shaping this thesis.

I am also very grateful to my committee members, Dr. Yuki Miyake and Dr. Kallaya Suntornvongsagul, alongside Asst. Prof. Dr. Wanwalee Inpin. Thank you all for your time, valuable feedback, and excellent suggestions, which truly helped shape my thesis into a much better piece of work. I would also like to express my sincere appreciation to Asst. Prof. Dr. Khen Suan Khai for providing constant encouragement and invaluable support throughout my studies. Additionally, I want to thank Dr. Sawang Meesang for his kindness, empathy, and understanding.

This degree would not have been possible without crucial institutional and financial support. I would like to acknowledge the initial funding provided by the USAID DISP scholarship. To ensure the continuity of my research, Mae Fah Luang University provided an institutional scholarship following the unexpected cancellation of the program. I am incredibly grateful to Asst. Prof. Dr. Thanikun Chantira, who personally discussed my situation with the President of the university to secure the necessary resources. Thank you both for providing the support that allowed me to finish my studies without interruption. Furthermore, I am grateful for the university's research and publishing grants, which supported the completion of this study. Additionally, I would like to thank Mr. Tana and the school administrative team for their excellent support and coordination.

I would also like to extend my sincere thanks to the Global Relations Division, particularly Dr. Nichan Singhaputargun, and especially Ms. Sriprai Pundach for her invaluable assistance in securing supplemental financial and administrative support.

Finally, a heartfelt thank you goes to my family, especially my mom, who has always trusted in me from the very beginning, as well as my classmates and friends. Your unwavering emotional support, understanding, and encouragement kept me going through this challenging yet rewarding chapter of my life.

Phyo Zaw Aung

Thesis Title Roles of Civil Society Organizations in the Flood Recovery in
Nay Pyi Taw, Myanmar

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Degree Master of Arts (International Development)

Advisor Assistant Professor Wanwalee Inpin, Ph. D.

ABSTRACT

Flooding remains one of the most destructive climate-related hazards affecting Myanmar, and the severe floods triggered by Typhoon Yagi in September 2024 exposed significant limitations in formal disaster response. This thesis investigates the roles of civil society organizations (CSOs) in flood recovery in Lewe Township, Nay Pyi Taw, where community-based CSOs, normally engaged in welfare services such as funeral support and health assistance, played a central role in meeting urgent recovery needs following the flood. This research employs a qualitative case study method, using semi-structured interviews with 12 participants, 4 CSO leaders, 4 CSO members, and 4 community leaders, representing 4 out of 5 active CSOs (80%) involved in the 2024 flood response and recovery. Data were analyzed through thematic analysis using 11 indicators derived from four Essentials of the UNDRR Ten Essentials for Making Cities Resilient framework, with a focus on coordination, societal capacity, disaster response, and recovery.

The findings show that voluntary CSOs, normally engaged in welfare services such as funeral support and health assistance, played a central role in flood recovery. They carried out search and rescue, distributed emergency assistance, supported road and infrastructure repair, rehabilitated water sources, and assisted affected households throughout the recovery period. Their effectiveness was largely driven by strong community trust, localized knowledge, and horizontal networks that enabled rapid information sharing and resource mobilization through digital platforms such as Viber. At the same time, the study found that limited coordination with government agencies, insufficient technical expertise, and shortages of specialized equipment constrained the scale and sustainability of their interventions.

The study concludes that CSOs are essential actors in Myanmar's disaster governance landscape and make significant contributions to community recovery. However, volunteer-driven efforts alone cannot adequately address large-scale disasters without stronger institutional support. Integrating local CSOs more systematically into formal disaster management frameworks would strengthen community resilience and support more effective flood recovery in the future. This requires investment in training, coordination mechanisms, and technical resources to sustain their contributions.

Keywords: Civil Society Organizations (CSOs), Flood Recovery, Community Capacity



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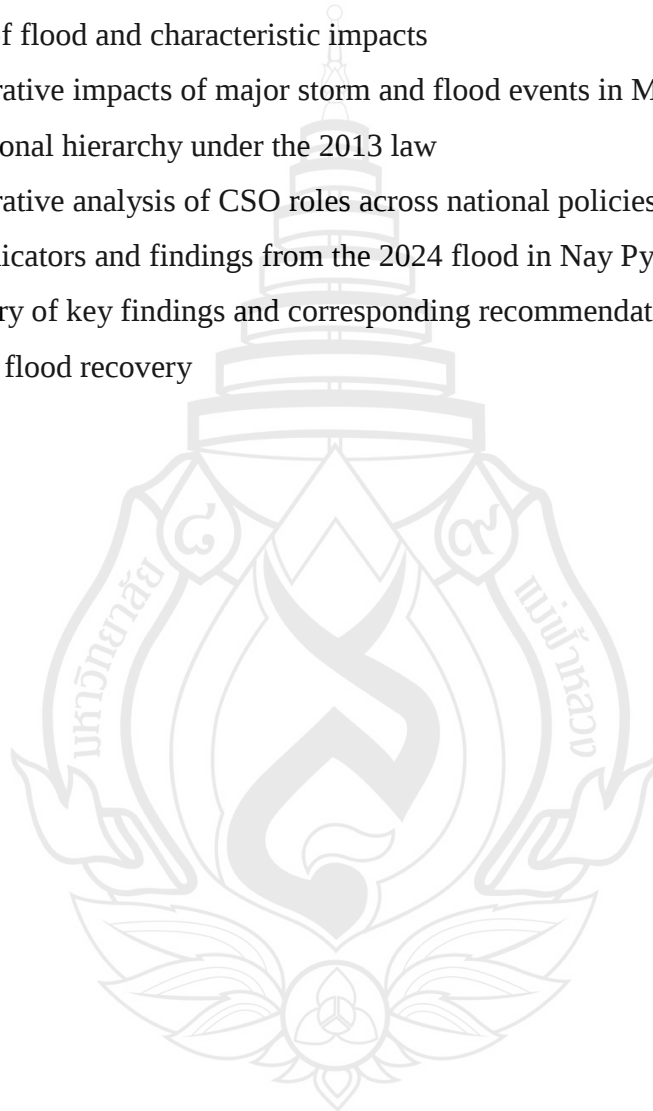
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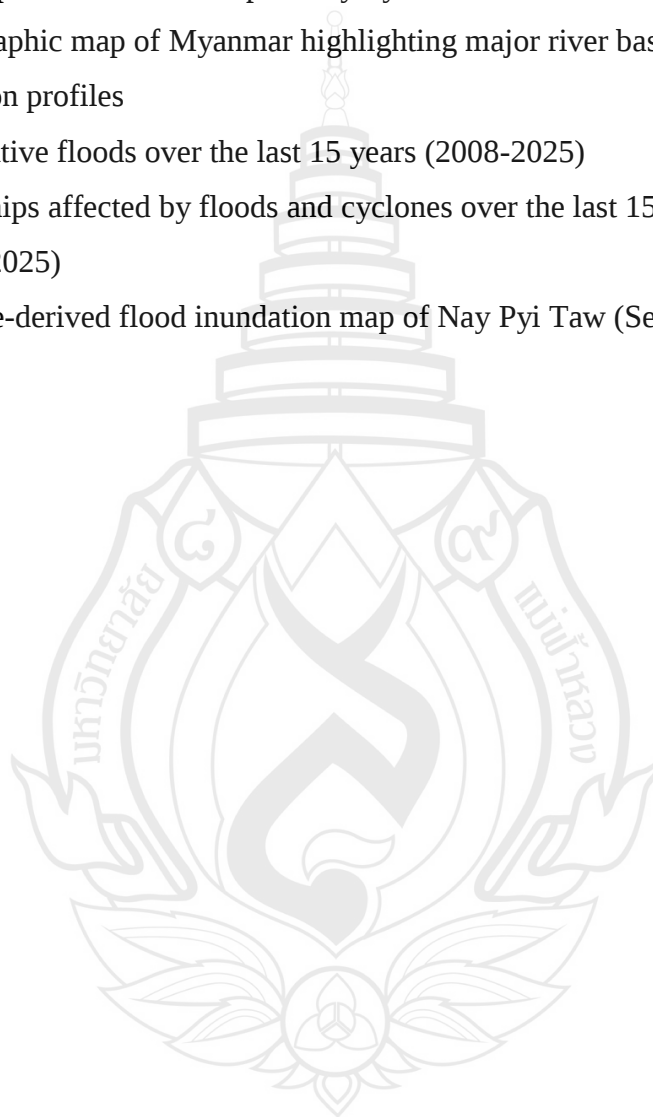
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CHAPTER 1

INTRODUCTION

1.1 Background

Extreme weather events are increasing worldwide, with floods and droughts causing widespread human and economic impacts. The Global Water Monitor 2024 reported that water-related disasters in 2024 led to over 8,700 deaths, displaced 40 million people, and caused economic losses exceeding US\$550 billion (Dijk et al., 2025). These findings reflect a broader trend of climate-driven hazards that demand stronger, locally grounded disaster governance.

According to the Climate Risk Index (2025), Myanmar ranks sixth out of 188 countries most affected by climate change over the past 30 years. Additionally, Myanmar is one of five priority countries in Asia that are highly vulnerable to large-scale natural disasters. Myanmar's heavy reliance on agriculture further amplifies its vulnerability, as floods frequently disrupt livelihoods, food security, and rural infrastructure (MNF-CDR, 2017).

In September 2024, Typhoon Yagi triggered severe flooding across 192 townships, affecting 2.4 million people and damaging assets worth US\$1.94 billion (World Bank & GFDRR, 2025). Nay Pyi Taw was among the hardest hit, with flash floods causing fatalities, displacement, and extensive crop losses (Global New Light of Myanmar, 2024c; Myanmar International TV, 2024).

CSOs have long been embedded in Myanmar's social landscape. Their origins can be traced to traditional village-level groups rooted in Buddhist and Christian institutions, which provided welfare support for funerals, health, and education (Asia Development Bank [ADB], 2024). During the colonial era, organizations such as the Young Men's Buddhist Association expanded into advocacy, while student movements pushed for educational reform (Maung, 2019). This growth was suppressed after the 1962 military coup, when independent CSOs were banned or placed under strict

control, leaving only government-organized NGOs such as the Myanmar Red Cross Society (Matelski, 2024).

A turning point came after Cyclone Nargis in 2008. The government's inadequate response created a massive gap that was filled by spontaneous mobilization of citizens, monks, and volunteer groups. This event is widely regarded as the rebirth of Myanmar's civil society, demonstrating their ability to provide aid effectively and build trust with communities (Maung, 2019). Building on this momentum, the democratic transition after 2011 and the 2014 Association Registration Law created new opportunities for CSOs to formalize, partner with international organizations, and engage in advocacy. CSOs have consistently played vital roles in disaster response and recovery, adapting to shifting political environments and community needs.

This research focuses on the contributions of voluntary CSO networks in flood recovery, with particular attention to Lewe Township in Nay Pyi Taw. Lewe was selected due to CSOs' long-standing presence, community trust, and active involvement in the 2024 flood response. While most existing studies emphasize national and international non-government organizations (INGOs), the role of community-based, volunteer-led CSOs remains underexamined. By analyzing their contributions to the flood, this study addresses a critical gap in disaster governance literature and offers context-specific insights for strengthening community capacity.

To analyze these grassroots actions systematically, this study uses the global framework of the UNDRR Ten Essentials for Making Cities Resilient. Although this framework is usually meant for city governments, this research focuses on specific essentials, including coordination, societal capacity, emergency response, and recovery, to explore how local CSOs fill gaps in disaster governance. Using this framework helps to examine local, community-driven efforts against international disaster management standards.

1.2 Statement of Problem

Myanmar is becoming more vulnerable to climate-related disasters (Adil et al., 2025; Wuit Yee Kyaw & Pyai Tun, 2023). The severe floods in September 2024

showed the limits of formal, state-led disaster response systems (UNOCHA, 2024b). Frontline CSOs have transitioned into pivotal actors within Myanmar's disaster landscape. Leveraging deep-rooted community trust, localized geographic insight, and operational flexibility, these networks routinely secure the immediate safety of isolated populations (Victoria et al., 2014). Their contributions extend past immediate life-saving relief to anchor long-term economic and infrastructural rehabilitation (Izumi & Shaw, 2014; Lassa, 2018). This expanding operational footprint marks a fundamental structural shift toward adaptive disaster governance (Tierney, 2012). Local, non-state actors are increasingly vital in strengthening community capacity for future floods (Berkes & Ross, 2013).

Despite the recognized importance of CSOs, a significant gap persists in the academic literature regarding the collaborative dynamics in post-disaster scenarios within Myanmar (Victoria et al., 2014; Wagle, 2006). Existing research has predominantly focused on the contributions of large INGOs (ADB, 2015; Maung, 2019). Consequently, the collaborative approaches, resource-sharing mechanisms, and coordinated actions of CSOs remain largely undocumented and underexplored. There is limited understanding of how these networks function, their contributions to flood recovery, and how their roles could be enhanced (Chavda & Gupta, 2014). This leaves a significant gap in our knowledge about how community-based recovery is planned, organized, and sustained over time.

This research addresses that gap by examining the 2024 flood recovery in Nay Pyi Taw, with a particular focus on Lewe Township through the lens of the UNDRR Ten Essentials framework (UNDRR, 2017). Although a variety of local CSOs were active, there is a lack of systematic analysis of how they utilized existing networks and coordinated their efforts. This study, therefore, aims to investigate the specific roles of CSO networks, analyze their collaborative practices, and assess how their contributions strengthened recovery. The objective is to generate evidence-based recommendations on how the roles of CSOs can be strategically managed to enhance community capacity for future disaster recovery.

1.3 Research Questions

1.3.1 What specific roles did CSOs and their networks play in the 2024 flood recovery in Nay Pyi Taw, Myanmar.

1.3.2 How did the roles of CSO networks contribute to the flood recovery when assessed against the UNDRR Ten Essentials framework?

1.3.3 How can the roles of CSOs be strategically managed to promote the community's capacity for flood recovery?

1.4 Research Objectives

1.4.1 To identify the specific roles of CSOs and their networks in the 2024 flood recovery in Nay Pyi Taw, Myanmar.

1.4.2 To analyze CSO networks' contributions to the 2024 flood recovery through the UNDRR Ten Essentials lens.

1.4.3 To recommend measures for strategically managing the roles of CSOs to strengthen community capacity for flood recovery.

1.5 Scope of the Study

This study focused on the roles of voluntary, community-based Civil Society Organizations in the 2024 flood recovery in Lewe Township, Nay Pyi Taw. It examined explicitly CSOs that are not formally disaster-focused but have long-standing community presence and trust, and that mobilized in response to the September 2024 floods. These organizations, often informal and volunteer-led, played critical roles in relief and recovery efforts despite limited resources and formal recognition.

Lewe Township was selected as the study area due to its active CSO landscape and its direct exposure to the impacts of the 2024 floods. The study concentrated on the post-disaster recovery phase, with particular attention to how CSOs coordinated, shared resources, and utilized existing networks to support affected communities. While the

research drew on the broader context of Nay Pyi Taw, its primary focus remained on Lewe Township as a site of localized, community-driven disaster response.

The study did not include national or INGOs, government agencies, or formal disaster management institutions, except where their interactions with local CSOs were relevant to understanding the dynamics of recovery. Rather than offering broad generalizations, this study generated locally grounded insights that reflected the recovery experiences of the grassroots CSOs network in Lewe.

1.6 Significance of Study

The research identified new knowledge in the field of disaster management by deepening understanding of the experiences of voluntary CSOs working in disaster response and recovery. It drew lessons for disaster practitioners, INGOs, and policymakers by examining their operations, challenges, and successes. These findings can support stronger capacity building for local CSOs, improved coordination with external agencies, and more effective disaster preparedness strategies that reflect grassroots practices, social capital, and community trust networks.

The study also contributes to strengthening Myanmar's human-centered disaster governance by highlighting the role of voluntary CSOs in advancing human security, especially in areas where formal systems are limited. Their grassroots engagement helps protect lives, restore livelihoods, and build social cohesion during and after disasters. The results provide practical insights for donor agencies, INGOs, and policymakers on investing in sustainable, community-based disaster management strategies that enable more inclusive and coordinated responses to future disasters.

Furthermore, the study has relevant policy implications. It suggests integrating voluntary CSOs more systematically into formal disaster management systems and emphasizes the importance of community-led models for disaster response and recovery. It also encourages stronger partnerships between local actors and international development agencies to promote long-term resilience and adaptive governance.

CHAPTER 2

LITERATURE REVIEW

This literature review examines the key concepts that shape modern, community-focused disaster recovery. It begins by exploring the broad landscape of disaster management, including flood management, and the role of civil society CSOs in recovery. It then reviews the Sendai Framework, which emphasizes proactive, community-driven action. Finally, it explores local systems of disaster governance and the Ten Essentials, a toolkit for assessing and strengthening resilience.

2.1 Disaster Management

2.1.1 Principles of Disaster Management

A foundational view in the literature defines disaster management as a structured cycle for coordinating actions and resources throughout an emergency (Carter, 2008; Sari, 2024). The United Nations Office for Disaster Risk Reduction (UNDRR), for instance, characterizes this field as a systematic framework that encompasses the coordination, strategic planning, and execution of vital actions designed to anticipate emergencies, manage immediate responses, and guide long-term rehabilitation (UNDRR, n.d.). This process-oriented perspective is reflected by agencies such as the U.S. Federal Emergency Management Agency (FEMA), where disaster management is not a singular event but a continuous cycle of planning, action, and adaptation (Federal Emergency Management Agency [FEMA], 2024). This approach highlights the importance of a systematic cycle consisting of four interrelated stages: mitigation, preparedness, response, and recovery, a structure that offers a comprehensive roadmap for action (Carter, 2008; Sari, 2024). Within this cycle, CSOs are recognized in the literature as critical actors who contribute at each stage, from community awareness in mitigation to livelihood restoration in recovery (Izumi & Shaw, 2014; Lassa, 2018).

Building on this process-oriented view, another important theme emphasizes disaster management as the proactive assessment and reduction of vulnerability before a crisis occurs. From this viewpoint, the focus shifts from merely responding to events to evaluating and mitigating potential losses (Othman et al., 2014). This leads to the closely related concept of Disaster Risk Management (DRM), which Aitsi-Selmi et al. (2015) define as a continuous process aimed at preventing or reducing disaster risk. This proactive approach is further clarified by Pulwarty et al. (2023), who characterize DRM as the operational utilization of strategies aimed at averting emerging vulnerabilities, mitigating current threats, and addressing residual risks. This perspective, therefore, represents a critical evolution from a historically reactive discipline to a proactive one committed to long-term resilience (United Nations International Strategy for Disaster Reduction [UNISDR], 2015). In DRM frameworks, CSOs are often positioned as community-based stakeholders who help operationalize risk reduction by conducting vulnerability assessments, mobilizing local resources, and advocating for inclusive policies (Chavda & Gupta, 2014; Victoria et al., 2014).

A more contemporary perspective integrates these ideas, framing disaster management as a holistic, adaptive, and multidisciplinary effort (Dai & Azhar, 2024). Within this integrative approach, CSOs are highlighted in the literature as bridging institutions and non-governmental stakeholders whose voluntary commitments and community-based initiatives help translate global DRR principles into local practice (Izumi & Shaw, 2014; Matsuoka & Gonzales Rocha, 2021). Bly et al. (2021) describe it as a comprehensive and flexible approach that requires significant inter-organizational coordination, especially when local capacities are overwhelmed. Because disaster risk arises from the complex interplay of social, technical, and environmental factors, effective management cannot be addressed in isolation (Tierney, 2012). As a result, contemporary disaster management operates as a comprehensive discipline. It requires close integration with international agendas like the Sendai Framework to mitigate vulnerabilities and advance long-term sustainable development across all sectors (Aitsi-Selmi et al., 2015).

At the national level, Myanmar's Natural Disaster Management Law (2013), the Disaster Management Rules (2015), and the Myanmar Action Plan on Disaster Risk Reduction (MAPDRR) establish institutional structures for disaster governance

(National Disaster Management Committee, 2017). These frameworks formally situate CSOs as supporting partners in preparedness, response, and recovery, emphasizing their role in complementing state institutions and bridging governance gaps (Ministry of Social Welfare, 2015; National Disaster Management Committee, 2017). Literature on disaster governance further underscores that CSOs contribute to system development by strengthening social capital, promoting inclusive participation, and ensuring that disaster management policies are connected to community realities (Dai & Azhar, 2024; Lam & Kuipers, 2019).

CSOs are situated within this broader disaster management framework as community-based actors who help operationalize mitigation, preparedness, response, and recovery, ensuring that the disaster management cycle is effectively translated into practice at the grassroots level.

2.1.2 The Four Stages of Disaster Management

The practice of disaster management is commonly conceptualized through a cyclical model comprising four distinct yet interrelated phases: mitigation, preparedness, response, and recovery (Matunhay, 2022). This holistic approach demands close collaboration among governments, civil society organizations, and affected communities to ensure effective outcomes.

Mitigation: This phase includes preventive and proactive efforts to reduce disaster risks and hazards. Such actions range from enforcing building codes to establishing systems for early detection to enforcing environmental conservation measures (UNDRR, n.d.). For example, community initiatives such as cleaning debris and improving water flow reduce flood risks. Flood mitigation cannot solely rely on public infrastructure. Instead, communities play a critical role in preparation for future events (Auliagisni et al., 2022).

Preparedness: This phase builds readiness through training, education, resource allocation, and emergency planning. Examples include evacuation drills and stockpiling emergency supplies (Izumi & Shaw, 2014; UNISDR, 2015) that reinforce resilience and minimize casualties and property loss.

Response: This stage includes actions to safeguard lives, livelihoods, health, and assets of affected communities. The immediate response phase encompasses activities undertaken during and immediately after a disaster, including search and

rescue, emergency medical assistance, and relief aid distribution (Coppola, 2015; UNDRR, 2019). Effective response efforts depend on the good coordination of agencies to provide information and assistance to vulnerable populations (Coppola, 2015; Cutter et al., 2008; Izumi & Shaw, 2014).

Recovery: The final phase involves rebuilding communities, restoring infrastructure, and strengthening resilience against future disasters, integrating disaster risk reduction measures for long-term sustainability (Coppola, 2015; Tierney, 2012; UNDRR, n.d.) Beyond physical reconstruction, recovery also integrates disaster risk reduction strategies to ensure long-term sustainability (United Nations Development Programme [UNDP], 2016). The UNDP (2016) and UNDRR (2015) stress that recovery efforts should restore normalcy, rebuild livelihoods, and fortify disaster resilience, not just provide immediate relief, by incorporating risk-reduction measures to prevent future vulnerabilities.

The four phases of disaster management are interconnected, forming a continuous cycle in which each phase transitions into the next, thereby improving the overall capacity to prepare for and respond to emergent situations effectively. Disaster management requires core principles such as risk reduction, community participation, and sustainability. These principles emphasize the need to minimize vulnerabilities, enhance local capabilities, and foster sustainable resilience (Cutter et al., 2008).

While the four-phase cycle of disaster management provides a structured framework for addressing disasters, it has been criticized for its overly simplistic and linear depiction of complex events (Sari, 2024). These phases often overlap, with recovery and mitigation efforts frequently commencing before the response phase concludes (FEMA, 2024). For instance, rebuilding infrastructure or implementing risk-reduction measures can occur alongside emergency relief efforts, requiring a flexible approach to resource allocation (Bly et al., 2021). This overlap underscores the need for a more flexible and adaptive disaster management model that adapts to the evolving situation on the ground. By acknowledging these complexities, disaster management can better address the multifaceted needs of affected communities.

The necessity for adaptability in disaster management has led to a transition away from rigid, state-controlled hierarchies in favor of participatory models that place local communities at the center of planning. Historically, disaster management was

viewed as the primary responsibility of government agencies, with centralized planning dominating response efforts (Wagle, 2006). Modern theories emphasize that local communities and CSOs are not passive victims but essential actors with important local knowledge and capacity (Auliagisni et al., 2022). Furthermore, global blueprints like the Sendai Framework validate this evolution. The framework explicitly promotes community-led risk management, emphasizing that sustainable planning and operational execution rely heavily on local stakeholders (UNDRR, 2015). This bottom-up approach fosters greater community ownership and ensures that interventions are contextually relevant, thereby improving the effectiveness of disaster management strategies.

The shift to inclusive disaster management also acknowledges that the process is not always a neutral, technical exercise but is deeply intertwined with politics and power dynamics. These dynamics influence critical decisions about resource allocation, community prioritization, and the inclusion of voices in the planning process (Tierney, 2012). The Sendai Framework emphasizes inclusive governance to mitigate these issues, advocating active participation by CSOs and vulnerable groups in decision-making to ensure equitable outcomes (UNDRR, 2015). Understanding these power dynamics is crucial for analyzing how recovery functions in practice, as they significantly influence the effectiveness of disaster management and the community's ability to rebuild sustainably.

Ultimately, effective disaster management requires collaborative efforts among multiple stakeholders. The government is identified as a key stakeholder in policymaking, resource allocation, and disaster response coordination (UNDRR, 2015). While international organizations bring in technical skills and financial resources, often filling local capacity gaps, the private sector plays a role through corporate social responsibility initiatives and investments in disaster-resilient infrastructure (Matsuoka & Gonzales Rocha, 2021). Especially where government capacities are limited (Lassa, 2018), CSOs play a significant role in mobilizing resources, providing immediate assistance, and facilitating long-term recovery.

Therefore, the theoretical foundations of disaster management provide a crucial lens for this research. The modern emphasis on a proactive, bottom-up approach directly validates the study of CSOs as key actors. The four-phase cycle offers a clear

framework for analyzing the specific roles CSOs undertake during each stage of a flood recovery. Furthermore, understanding the importance of multi-stakeholder collaboration is essential for investigating how CSO networks form and function within the broader response system.

2.1.3 Community-Based Disaster Management

Centered on grassroots participation, the Community-Based Disaster Management (CBDM) model ensures that neighborhood residents directly drive localized mitigation efforts and post-crisis rehabilitation. The framework is particularly effective at addressing communities' specific needs and capacities, especially in developing areas exposed to recurring disasters. Disaster management activities must align with local needs and resources, and CBDM advocates locally appropriate and community-owned strategies (Izumi & Shaw, 2014). Theoretically, CBDM emphasizes coordination of relief operations, support to affected populations, and rebuilding of communities through localized efforts (Izumi & Shaw, 2014).

The CBDM framework underscores the importance of community-driven initiatives within established disaster management systems. It highlights the need for defined guidelines to integrate local efforts into broader disaster management frameworks, ensuring the sustainability and effectiveness of recovery plans (Wagle, 2006). The challenges in CBDM include ensuring long-term commitment to recovery efforts and addressing systemic constraints, such as limited resources and organizational inefficiencies, which can create vertical bottlenecks and hinder the coordination of long-term recovery.

Effective CBDM involves addressing systemic barriers such as insufficient infrastructure and poor coordination among stakeholders (Wagle, 2006), which worsen the effects of floods in Myanmar. For example, limited access to early warning systems makes it difficult to respond quickly, thereby increasing the community's vulnerability (Auliagisni et al., 2022). Getting the community involved in risk assessment and planning can help bridge these gaps and align with theoretical models of resilience that emphasize the importance of local knowledge (Cutter et al., 2008). However, sustaining community involvement is challenging due to short-term volunteer commitments and economic pressures, necessitating innovative strategies to maintain long-term recovery efforts (Jiang & Ren, 2024).

There are opportunities to enhance CBDM by empowering vulnerable groups, including women and marginalized communities, through focused training and policy advocacy, as supported by the Sendai Framework (Matsuoka & Gonzales Rocha, 2021). By integrating local knowledge and addressing social inequities, CBDM enhances capacities in diverse communities, aligning with community-based disaster resilience models (Cutter et al., 2008). While the Myanmar Action Plan on Disaster Risk Reduction (National Disaster Management Committee, 2017) already acknowledges the role of CSOs, strengthening their integration is necessary to ensure that their contributions lead to effective disaster recovery and enhance community capacity (Lassa, 2018). These enhancements are essential for ensuring the overall effectiveness of disaster management and increasing CBDM's impact in Myanmar.

2.1.4 Flood Disaster Management

Flood management is a multidimensional field that integrates structural engineering, environmental planning, social preparedness, and policy reform to reduce the risk and impact of flooding. As climate variability intensifies and urbanization expands into hazard-prone areas, the need for comprehensive flood management strategies becomes increasingly urgent (Kundzewicz, 2022). Effective flood management not only protects lives and infrastructure but also supports long-term resilience and sustainable development. This section analyzes flood management across the traditional disaster lifecycle, encompassing mitigation, emergency preparedness, immediate response, and long-term recovery. Consequently, it underscores a modern transition away from purely structural engineering defenses toward comprehensive strategies that blend physical infrastructure with non-structural interventions (UNDRR, 2015).

Mitigation employs proactive measures to minimize flood risks by addressing underlying vulnerabilities through structural and non-structural strategies (Wisner et al., 2003). Flood mitigation involves structural measures such as dams, dikes, and reservoirs, as well as non-structural approaches such as watershed management and wetland restoration to reduce runoff and improve natural absorption (Kundzewicz, 2022). Land-use planning and zoning prevent development in high-risk floodplains, promoting sustainable land use. However, effective mitigation requires robust governance to enforce policies and balance economic and environmental priorities

(Wagle, 2006b). By addressing root causes, mitigation lays the foundation for long-term flood risk reduction.

Preparedness focuses on pre-flood actions to ensure effective responses, integrating forecasting, warning systems, and community education (UNDRR, 2015). Non-structural flood preparedness measures are considered essential complements to physical infrastructure, as overreliance on structural defenses can create a false sense of security, leading to catastrophic damage if they fail (Wisner et al., 2003). These non-structural actions aim to reduce social vulnerability and enhance long-term resilience (Kundzewicz, 2022). First, flood forecasting systems use mathematical models and real-time data, such as rainfall and river flow, to predict flood events and issue early warnings (Kundzewicz, 2022). Second, public awareness campaigns educate populations on risks and response preparedness (Chavda & Gupta, 2014). Third, contingency planning establishes protocols for evacuation and resource allocation. Ultimately, financial tools such as insurance schemes help mitigate economic losses and support recovery efforts (UNDRR, 2019). Challenges, such as limited access to advanced forecasting technologies, can hinder effectiveness. Robust preparedness minimizes flood impacts through proactive community readiness.

Guided by real-time detection and predictive forecasting, the response phase entails executing urgent interventions throughout the emergency window to safeguard populations and address critical, immediate necessities (UNDRR, 2019). This phase is triggered by real-time flood detection and forecasting, which informs the dissemination of public alerts about the extent, severity, and timing of the flood (Kundzewicz, 2022). The primary actions involve evacuating at-risk populations to safe locations and coordinating emergency relief, which includes providing shelter, food, water, and medical assistance to affected individuals (Wisner et al., 2003). The success of this phase depends on preparedness, as pre-established plans facilitate efficient responses (Chavda & Gupta, 2014). However, coordination challenges and resource constraints can delay the delivery of aid. Response actions are critical for minimizing immediate harm and stabilizing communities during flood events.

Recovery involves long-term restoration and rebuilding post-flood, aiming to regenerate communities and reduce future risks through the “Build Back Better” principle (UNDRR, 2015). Beyond repairing infrastructure, it includes environmental

restoration, such as reviving wetlands to enhance flood retention, and economic regeneration to restore livelihoods (Kundzewicz, 2022). Reconstruction efforts, like elevating buildings or enforcing stricter building codes, minimize future vulnerabilities (Auliagisni et al., 2022). Financial tools, such as insurance payouts and government aid, support recovery by addressing economic losses (UNDRR, 2019). When institutional safety nets fail, secondary economic losses permeate rural economies, pushing affected households into recurring cycles of predatory debt. Post-flood reviews assess event outcomes to enhance future mitigation and preparedness strategies (Chavda & Gupta, 2014). Challenges, including funding shortages and governance gaps, can hinder sustainable recovery (Wagle, 2006). This phase ensures communities rebuild with greater resilience to future floods.

2.1.5 Role of CSOs in Disaster Recovery

CSOs, which are non-governmental, voluntary entities, are recognized as central actors within local governance systems for disaster recovery (Lassa, 2018; Matsuoka & Gonzales Rocha, 2021). Their embeddedness in local contexts, along with flexibility and quick response, allows effective addressing of immediate and long-term needs (Izumi & Shaw, 2014). Not limited to service provision, CSOs also play vital roles in capacity building, advocacy, coordination, and mobilizing local knowledge for disaster risk reduction (Auliagisni et al., 2022; Izumi & Shaw, 2014). Coordinating networks and building community capacity, CSOs contribute significantly to sustainable recovery, aligning with the Sendai Framework's emphasis on inclusive disaster risk reduction (UNDRR, 2015).

CSOs often serve as responders in disasters, filling critical gaps before formal government or international aid arrives (Lassa, 2018). Because they are deeply rooted in their communities, their local knowledge enables rapid, context-specific interventions, such as emergency referrals and rescue operations, that mitigate long-term health and economic impacts (Ganoe et al., 2023). Their trusted status enhances the effectiveness of aid, as communities often rely on familiar local actors over external agencies (Wagle, 2006). By facilitating community participation and ensuring strategies reflect local realities, CSOs serve as both implementers and facilitators within disaster governance systems (Wagle, 2006). CSOs provide essential services, including search and rescue, initial damage assessments, and the distribution of food and

emergency shelters, thereby mitigating immediate health and economic impacts (Ganoe et al., 2023). However, unstable funding and limited technical capacity can constrain their ability to scale these efforts, particularly in rural areas (Izumi & Shaw, 2014). Despite these challenges, the rapid response of CSOs is vital for stabilizing communities and enabling recovery.

The effectiveness of CSOs in disaster recovery is enhanced through both formal and informal networking, which facilitates resource sharing, minimizes duplication, and supports unified advocacy. CSOs form formal or informal networks to share real-time information, pool funding, and ensure comprehensive geographic coverage (Chopra et al., 2023). These networks also represent community needs to governments and international agencies, advocating for inclusive policies (Wagle, 2006). However, challenges such as competition for funding and lack of formal coordination mandates can create tensions and limit scalability (Victoria et al., 2014). Effective networking remains essential for CSOs to maximize their impact in recovery efforts.

Beyond immediate relief, CSOs play a crucial role in building community capacity, empowering populations to withstand future shocks through participatory processes (Ganoe et al., 2023). This central role in local governance is essential for building resilience and aligns with the Sendai Framework's call for multi-stakeholder disaster risk reduction (Lam & Kuipers, 2019; UNDRR, 2015). Rather than restoring pre-disaster conditions, CSOs promote building back better, a core principle of the Sendai Framework (UNDRR, 2015). Through participatory processes, CSOs facilitate programs to restore and diversify livelihoods, provide vital psychosocial support, and enhance local preparedness for future events (Ganoe et al., 2023). CSOs, ranging from local community groups to NGOs, are vital contributors to disaster recovery.

In summary, CSOs are essential players in disaster recovery. They serve as rapid first responders, create crucial networks to improve aid efficiency, and act as agents in building long-term community resilience. Their effectiveness stems from their flexibility, local knowledge, and the high levels of trust within communities. However, their ability to perform these functions is not absolute and is profoundly influenced by the broader disaster governance landscape and by their roles in aligning with the formal disaster management system.

2.2 Disaster Governance

2.2.1 Defining Disaster Management and Disaster Governance

In the literature, disaster management and disaster governance are related but distinct concepts that underpin contemporary approaches to disaster risk reduction. Disaster management is typically described in the literature as a systematic, cyclical process that coordinates actions and allocates resources across the interrelated phases of mitigation, preparedness, response, and recovery (Carter, 2008; Sari, 2024). This concept emphasizes the operational processes and practical actions required to address the direct impacts of hazards, with a focus on systematic planning and the implementation of concrete measures throughout all phases of the disaster cycle (Othman et al., 2014). Disaster management frameworks provide the roadmap for action, outlining roles, responsibilities, and procedures for actors including government agencies and civil society organizations (Izumi & Shaw, 2014; Lassa, 2018).

By contrast, disaster governance refers to the broader system of norms, institutions, policies, and practices that coordinate diverse stakeholders and guide decision-making across all phases of disaster management (Aitsi-Selmi et al., 2015; Tierney, 2012; UNDRR, 2019). Disaster governance is inherently collaborative and multi-level, encompassing both formal mechanisms and informal structures, including community networks and CSOs (Chopra et al., 2023; Lassa, 2018). The effectiveness of disaster governance lies in its ability to foster accountability, inclusivity, and adaptive learning, bridging the gap between top-down policy and bottom-up action (Jiang & Ren, 2024; Lam & Kuipers, 2019).

Disaster management is primarily concerned with the operational cycle, while disaster governance addresses how these actions are coordinated, who is involved, and how power and resources are distributed. Disaster management provides the structure for action; disaster governance determines the quality, legitimacy, and sustainability of that action. The interplay between these concepts is central to understanding the roles of CSOs, as they are both operational actors within disaster management and key stakeholders in local governance systems (Izumi & Shaw, 2014; Lassa, 2018; UNDRR, 2015).

2.2.2 The Role of Local Governance and CSOs

In the context of disaster risk management, local governance refers to the structures, processes, and actors at the community or subnational level responsible for planning, coordinating, and implementing disaster-related activities (UNDRR, 2019). Traditionally, local governance has been associated with municipal authorities and local branches of government. However, recent literature and international frameworks increasingly recognize that CSOs are integral actors within local governance systems, particularly in regions where government capacity is limited or where community needs are highly context-specific (Lassa, 2018; Matsuoka & Gonzales Rocha, 2021).

CSOs are not viewed solely as service providers but are explicitly recognized as key actors within local governance systems. The literature emphasizes that their roles extend well beyond immediate relief to include capacity building, advocacy, coordination, and the mobilization of local knowledge and resources for disaster risk reduction (Auliagisni et al., 2022; Izumi & Shaw, 2014). As both implementers and facilitators, CSOs play a crucial role in enabling community participation in disaster planning and response, ensuring that disaster management strategies reflect local needs and realities. Their embeddedness in the community allows them to bridge gaps between formal government structures and grassroots needs, making them essential agents of practical governance (UNISDR, 2015; Wagle, 2006).

This perspective aligns with the emphasis in the Sendai Framework on inclusive, multi-stakeholder approaches to disaster risk reduction, where effective local governance relies on strong partnerships between government entities and CSOs (Lam & Kuipers, 2019; UNDRR, 2015). In this thesis, the concept of local governance is therefore operationalized as a collaborative system in which CSOs play a central and active role alongside formal authorities. Clearly situating CSOs within the broader framework of local governance highlights their significance not only as independent actors but also as key partners in building disaster resilience at the community level.

2.2.3 Principles of Disaster Governance

Moving beyond definitions, disaster governance in practice relies on several interconnected principles that determine its effectiveness across all phases of disaster management. These principles guide the coordination, decision-making, and resource allocation necessary for effective disaster risk reduction.

A primary component is multi-stakeholder coordination, which ensures that governments, communities, and both international and local organizations work in concert to reduce risks (Aitsi-Selmi et al., 2015; Dai & Azhar, 2024). This requires inclusive community participation to strengthen local efforts, incorporate valuable local knowledge, and support a more sustainable recovery (Izumi & Shaw, 2014). Alongside participation, robust policy development is essential for creating clear guidelines and legal frameworks that structure all phases of disaster management (Aitsi-Selmi et al., 2015; UNDRR, 2015). As Jiang & Ren (2024) emphasize, this also involves the strategic use of political power to ensure proper resource allocation and create the coordination mechanisms necessary for an effective emergency response.

Disaster governance operates through formal and informal systems, each critical to managing crises. Formal governance encompasses official laws, policies, and government agencies tasked with disaster management (Tierney, 2012). During crises, however, these systems are often slow or overwhelmed, prompting the emergence of an informal system led by community leaders, social networks, and local organizations (Lassa, 2018). These actors use local knowledge and relationships to coordinate aid and make swift decisions (Chopra et al., 2023). The effectiveness of disaster response often depends on the interplay between these systems, with local organizations collaborating with or operating independently of formal structures to address urgent needs (UNDRR, 2015). This dynamic provides a framework for analyzing how community-based networks enhance disaster resilience.

Accountability and legitimacy are pivotal to understanding disaster governance in practice. Government agencies are formally accountable to citizens, but their legitimacy can erode due to ineffective or inequitable disaster responses (Tierney, 2012). In contrast, local organizations gain legitimacy through deep trust and social acceptance within communities, often making them the preferred point of contact for affected populations (Wagle, 2006). This trust empowers these organizations to foster resilience beyond mere service provision (UNDRR, 2019). By leveraging their community standing, local organizations ensure responsive recovery, providing a lens for analyzing their role in building trust and driving effective disaster outcomes.

Decentralization, a key trend in modern disaster governance, shifts authority from central governments to local levels, enabling faster, context-specific responses

(UNDRR, 2019) Local authorities, closer to at-risk communities, better grasp vulnerabilities and can act quickly. Yet, decentralization often lacks sufficient funding, creating a governance gap that local organizations frequently address (Wagle, 2006). The Sendai Framework promotes partnerships with such organizations to strengthen local disaster risk reduction (UNDRR, 2015). This perspective emphasizes local organizations as essential governance actors, not merely aid providers, and provides a framework for analyzing their role in capacity building.

The concept of disaster governance has evolved significantly over time. Historically, the focus was primarily on reactive, post-disaster coordination and emergency response plans (Carter, 2008). This modern approach, heavily guided by the Sendai Framework, prioritizes prevention, risk reduction, and multi-stakeholder collaboration (UNDRR, 2015). This has led to the emergence of adaptive disaster governance, a more flexible and resilient approach. Adaptive governance is characterized by its multi-level and multi-stakeholder nature, featuring polycentric institutions, collective action, and iterative learning to continually improve the system's ability to minimize disaster impacts (Lam & Kuipers, 2019).

In conclusion, the goal of disaster governance is to coordinate all actors to build long-term resilience. However, this is often hindered by a persistent lack of cohesion and a distinct disconnect between official frameworks and practical execution. Bridging these gaps, CSOs play a vital role by leveraging their community trust and local knowledge to foster cooperation and translate high-level policies into meaningful action for at-risk communities.

Addressing these challenges worldwide requires a structured approach, which the Sendai Framework for Disaster Risk Reduction offers by equipping societies with the tools needed to lower risk and endure disasters.

2.3 The Sendai Framework

2.3.1 Overview of the Sendai Framework

Established in 2015 during the Third United Nations World Conference in Sendai, Japan, the Sendai Framework for Disaster Risk Reduction (SFDRR) serves as

a cornerstone global strategy. It succeeded the Hyogo Framework for Action (2005–2015) and marked the opening milestone of the post-2015 international development agenda. It fundamentally redefines disaster risk as a complex interplay of hazards, vulnerability, and exposure, thereby urging risk-informed decision-making across all sectors (Aitsi-Selmi et al., 2015; UNDRR, 2015)

The significance of the framework lies in its transformative vision of Disaster Risk Reduction (DRR) as a basis for sustainable and equitable development. To guide its implementation, the framework is structured around Four Priorities for Action: (1) Understanding disaster risk, (2) Strengthening disaster risk governance, (3) Investing in DRR for resilience, and (4) Enhancing disaster preparedness, and Seven Global Targets to measure progress. In contrast to its predecessor, this framework places greater emphasis on tackling root vulnerabilities, including socioeconomic disparity, pervasive poverty, and unregulated urban growth. It advocates for embedding disaster risk reduction within overarching international frameworks, specifically aligning efforts with both the Paris Agreement and the 2030 Agenda for Sustainable Development. This approach underscores how tightly risk reduction, climate action, and development planning are intertwined (Aitsi-Selmi et al., 2015; UNDRR, 2015). This approach underscores that disaster risk reduction is a shared responsibility across all levels of governance and all sectors of society (Lassa, 2018; UNDRR, 2015).

The Framework promotes shared responsibility across diverse stakeholders, moving beyond central government-led disaster management (UNDRR, 2015). It outlines specific roles for local organizations, academia, media, the private sector, and local governments, emphasizing inclusive collaboration (UNDRR, 2019). For instance, local organizations engage communities in risk reduction, academia provides evidence-based strategies, media raises awareness, the private sector invests in resilient infrastructure, and local governments implement tailored policies (Tierney, 2012). This approach highlights the importance of diverse actors collaborating and provides a theoretical foundation for analysing the contributions of community-based groups to disaster risk reduction within a global framework (Lassa, 2018b).

The four priorities of the Sendai Framework provide a detailed roadmap for achieving its goals. The first priority is understanding disaster risks, which requires a comprehensive assessment of hazards, vulnerabilities, and exposure. This involves the

systematic collection of disaggregated data, the creation of detailed risk maps, and the widespread dissemination of risk information to all stakeholders (UNDRR, 2015). Crucially, this priority emphasizes the need to combine scientific data with the local and indigenous knowledge held by communities. The importance of a process where local organizations are vital for translating technical information into practical, actionable awareness (Auliagisni et al., 2022).

In managing risks, the second pillar is strengthening inclusive risk governance. This priority calls for developing inclusive policies and institutions that can effectively manage disaster risk by ensuring the diverse perspectives of every demographic, such as women, persons with disabilities, and indigenous groups, are fully represented (UNISDR, 2015). By establishing strong governance as a core pillar, the Sendai Framework promotes multi-stakeholder coordination and accountability, which guarantees that risk minimization efforts are systematically embedded across diverse sectors and institutional levels (UNDRR, 2015). This focus on governance supports the development of legal frameworks, resource allocation, and partnerships that enhance resilience and enable effective risk management practices.

The third critical pillar is investment in resilience. The Framework advocates sustainable funding and financial mechanisms to support disaster resilience efforts, including local preparedness initiatives and disaster-resilient infrastructure. This includes establishing community disaster centres, stockpiling materials, and promoting ongoing training exercises to build technical and logistical capacities for emergency response (Auliagisni et al., 2022; UNDRR, 2015).

Finally, the fourth priority focuses on strengthening readiness for efficient crisis response while ensuring that recovery phases are used to reconstruct more resilient systems. This priority involves developing and regularly testing multi-hazard early warning systems, creating robust contingency plans, and conducting community-based evacuation drills. A key concept within this priority is to build back better, which means using the recovery and reconstruction phase as an opportunity to rebuild in ways that reduce future risk (UNDRR, 2015).

While progress on the Sendai Framework is tracked through national monitoring systems, its successful implementation depends on translating these broad priorities into measurable actions at the local level. To bridge the gap between global

policy and on-the-ground practice, this thesis uses the practical toolkit provided by UNDRR's Ten Essentials for Making Cities Resilient. This framework offers a specific set of indicators that operationalize the Sendai Framework's vision. The following section will detail this toolkit and the particular indicators selected to assess how the CSOs network contributes to building community capacity for future resilience (UNDRR, 2017).

2.3.2 The Ten Essentials for Making Cities Resilient

To assist local authorities with DRR implementation, the United Nations Office for Disaster Risk Reduction introduced the "Ten Essentials for Making Cities Resilient" framework upon debuting its Making Cities Resilient campaign in 2010 (UNISDR, 2012). It was developed as a practical toolkit to operationalize the Hyogo Framework for Action (2005–2015). In 2015, the framework was updated to align with the Sendai Framework for Disaster Risk Reduction (2015–2030). The Ten Essentials for making cities resilient and the Disaster Resilience Scorecard for Cities provide a structured framework for assessing urban risks, building resilience, and tracking progress (UNDRR, 2017).

The framework is comprehensive, covering three critical areas: governance and financial capacity (Essentials 1–3), which structure resilience efforts, assessing risks, and securing funding for DRR (UNDRR, 2017). The second category encompasses several facets of strategic planning and crisis readiness. Spanning Essentials 4 through 8, it concentrates on physical infrastructure, environmental stewardship, and the expansion of societal capacity. The final area focuses on emergency response and recovery (Essentials 9-10), ensuring the city can respond effectively to disasters and build back better. This holistic approach recognizes that resilience is not just about emergency response but is deeply integrated into the city's overall planning and development.

While the framework is designed for local governments, the active participation of CSOs is fundamental to achieving its goals (UNDRR, 2019). For this research, a targeted selection of indicators is used to analyze the specific contributions of CSOs where they are most impactful. Therefore, this study focuses primarily on Essentials 1 (Organize for Resilience), 7 (Understand and Strengthen Societal Capacity), 9 (Ensure Effective Disaster Response), and 10 (Expedite Recovery and Build Back Better), while

accounting for their intersections with wider resilience indicators. These specific areas were chosen because they directly reflect the core functions of CSOs in disaster governance. CSOs contribute significantly to essential 1, by facilitating multi-stakeholder coordination and community engagement in DRR planning (Lassa, 2018). In Essential 7, they build community networks and support vulnerable groups (Auliagisni et al., 2022). In Essential 9, CSOs serve as first responders, providing critical support during crises (Lassa, 2018). Similarly, in Essential 10, CSOs guide community-led recovery efforts by integrating local knowledge (UNDRR, 2019).

This study selects eleven indicators from four essentials of the Ten Essentials for Making Cities Resilient to serve as an analytical framework for assessing the roles of CSOs in Lewe Township (UNDRR, 2017). For example, indicator P 1.2, which asks, “Is there regular training of key personnel in disaster risk management?” assesses CSO efforts in building local capacity through training programs (UNDRR, 2017). Similarly, indicator P 7.1, “Are grassroots or community organizations participating in pre-event planning and post-event response?” assess CSO involvement in preparedness and response activities (UNDRR, 2017). Additionally, indicator P 10.1, “Is there a strategy or process in place for post-event recovery?” measures the effectiveness of CSO-led recovery initiatives (UNDRR, 2017). These indicators provide a systematic framework to analyze CSO activities in Lewe Township, ensuring alignment with the Sendai Framework and the Ten Essentials (UNDRR, 2017).

2.4 Conceptual Framework

This research’s conceptual framework, as shown in Figure 2.1, explains the relationship between the actions of CSOs and the outcomes of flood recovery in the context of the 2024 flood disaster in Nay Pyi Taw, Myanmar. This framework is grounded in the recognition that CSOs are central actors in disaster recovery and in supporting community capacity after crises. It demonstrates how the activities and coordination efforts of CSOs contribute to both immediate recovery outcomes and the long-term capacity of communities to respond to future disasters.

The framework identifies CSO actions as the main driving force in the recovery process. These actions include emergency response activities such as search and rescue, early warning communication, emergency shelter support, relief distribution, and WASH services. In addition, the framework highlights the importance of existing networks and coordination among CSOs, local communities, religious leaders, and local authorities. Through horizontal networking and the use of digital communication platforms, CSOs were able to share information, mobilize resources, and coordinate activities during and after the flood disaster.

At the same time, the framework recognizes that the effectiveness of CSO actions depends on the broader disaster governance environment. This governance environment includes formal disaster management policies, government support and coordination, and the level of trust between communities and CSOs. Supportive policies and collaborative relationships with local authorities can strengthen CSO effectiveness, while restrictive regulations and weak coordination may limit their contributions. Community trust also plays a significant role, as local people often rely on CSOs as trusted intermediaries for information sharing, emergency assistance, and recovery support.

The framework further suggests that effective CSO actions and supportive governance conditions can lead to positive community outcomes. In the long term, the framework also emphasizes enhanced community capacity and resilience, including improved preparedness, community-led disaster initiatives, and stronger ability to cope with future flood events. Overall, the framework illustrates that disaster recovery is not only influenced by the actions of CSOs but also by the level of collaboration, governance support, and community participation within the disaster management process.

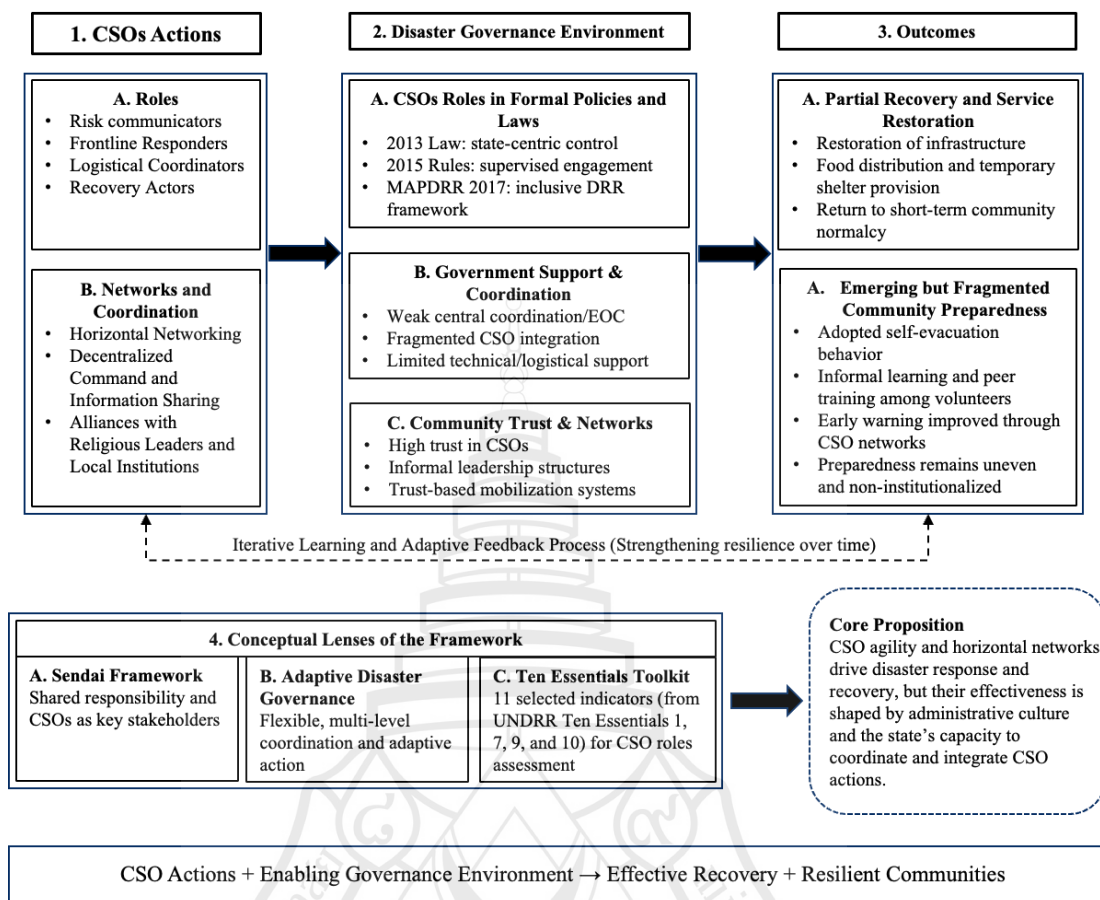


Figure 2.1 Conceptual framework

CHAPTER 3

RESEARCH METHODOLOGY

This study examined the roles of non-disaster-focused CSOs in flood recovery in Nay Pyi Taw following the 2024 flood. The research used a qualitative approach, relying on semi-structured interviews to collect rich, in-depth data and explore how CSOs raised resources, faced challenges, and built stronger communities through inclusive disaster governance. The respondents were CSO leaders, members, and community leaders who were actively involved in the response and recovery efforts. Ethical considerations were prioritized to ensure that participants' rights and well-being were protected throughout the study.

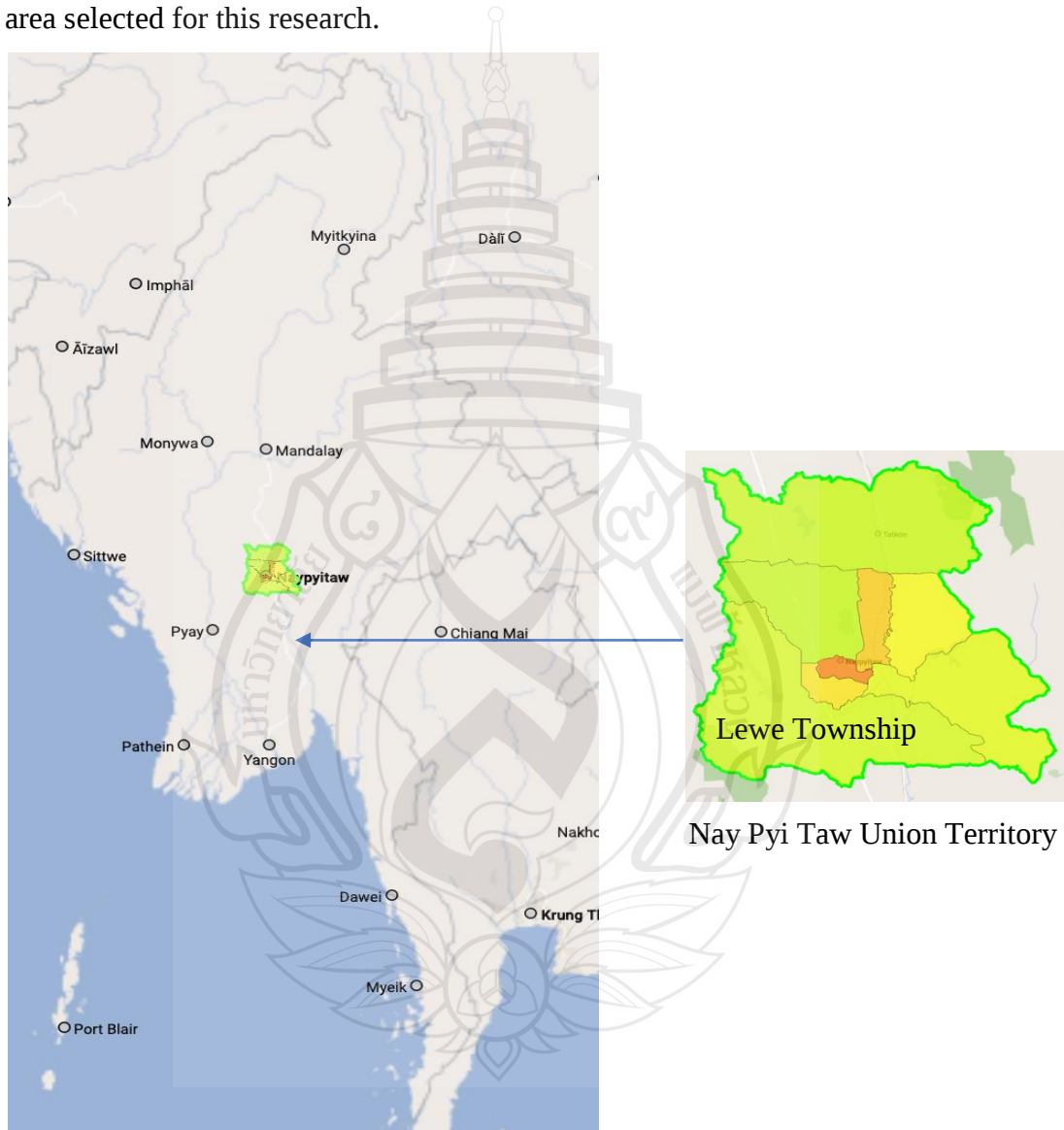
3.1 Research Design

This study employed a qualitative research method to gain an in-depth understanding of the complex social phenomena surrounding community-led disaster recovery. Specifically, the research was designed as a qualitative case study (Creswell & Poth, 2018). This research design was suitable as it enabled a focused investigation of CSO roles and networks during the September 2024 flood recovery in Lewe Township. The study aimed to examine how these roles contributed to recovery efforts, and how they were managed to strengthen community capacity for disaster response.

3.2 Research Site

The geographical focus of this study was the flood-affected region within the Nay Pyi Taw council area, which was devastated by the September 2024 floods. Nay Pyi Taw Union Territory covers approximately 7,057 km² (MIMU, 2026b), and according to the 2024 Myanmar Population and Housing Census, the Union Territory recorded a population of 1,129,322 (Department of Population, 2025). During the

September floods, 162 km² of land was inundated, exposing about 100,079 people (UNOCHA, 2024b). Within this wider context, Lewe Township was among the most severely affected areas, with flood exposure representing roughly 5.7% of its population and 1.3% of the Union Territory's total (UNOCHA, 2024b). Figure 3.1 shows the location of Lewe Township within Nay Pyi Taw Union Territory, highlighting the study area selected for this research.



Source City Population (2024)

Figure 3.1 The map of Lewe Township in Nay Pyi Taw Union Territory

Lewe was selected as the study site because it combined severe flood exposure with a strong presence of CSOs actively engaged in recovery. According to satellite

analysis by UNOCHA (2024b), Lewe recorded an estimated 37 km² of inundated area and 15,297 people potentially exposed, making it one of the most affected townships. This dual significance of high disaster impact and concentrated CSO activity provides a clear rationale for choosing Lewe as the focal area.

Table 3.1 Scale of flood impact in Nay Pyi Taw

Area	Population	Area Size	Flood Impact
Nay Pyi Taw Union Territory	1,129,322	7,057 km ²	162 km ² inundated; 100,079 potentially exposed
Lewe Township	267,345	2,259 km ²	37 km ² inundated; 15,297 potentially exposed

Source Adapted from Myanmar Information Management Unit [MIMU] (2026), UNOCHA (2024), Department of Population (2017)

The flood itself was a significant event triggered by Typhoon Yagi. It triggered heavy, consecutive rainfall starting on the night of September 9th, resulting in severe flash floods and landslides across at least five townships in the region. Daily precipitation records for Nay Pyi Taw confirm this intensity: rainfall rose sharply between September 8 and 13, with 27 mm on September 9, 45 mm on September 10, and peaking at 60 mm on September 11. This week-long rainy stretch was the heaviest of the month, while the rest of September saw only light showers, ranging from 0.4 mm to 9.6 mm (Weather and Climate, 2024).

Beyond Lewe, the flood created a flood zone covering 36 km², with water levels reaching as high as 3 to 4.3 m. The impact on the local population was immediate and severe, prompting a challenging evacuation and rescue operation for approximately 25,000 affected people (Myanmar International TV, 2024). As of September 14th, the disaster had resulted in 42 fatalities, the destruction of 33 homes, and the inundation of over 3,800 buildings (Myanmar International TV, 2024). This large-scale event and the subsequent recovery challenges created a critical need for community-led action. It provides a highly relevant context for studying the roles and networks of local CSOs that mobilized to respond to this regional disaster.

3.3 Research Participants

The research specifically targeted the five major CSOs that actively participated in the 2024 flood response in Lewe Township. Among them, four CSOs consented to participate in the study, accounting for 80% of the total CSO population. Therefore, the unit of analysis in this study is CSOs rather than individual persons. The level of analysis is local, focusing on township-based organizations and community leadership rather than national or international actors.

To capture a holistic view of the recovery dynamics, participants were selected using a purposive sampling strategy stratified by institutional and community roles (Palinkas et al., 2015). Respondents were divided into three strata based on their roles: CSO leaders, CSO members, and community leaders. Two of these CSOs were used as entry points because of their active involvement in welfare services such as emergency referrals, blood donations, funeral services, and social support. During the floods, both organizations leveraged their community knowledge and networks to provide immediate assistance.

The inclusion of CSO leaders was important because they oversaw strategic decisions and coordinated the mobilization of resources during recovery. In contrast, CSO members offered insights from the ground, drawing on their direct involvement in rescue operations, food distribution, and sanitation work. Community leaders, such as village elders and Buddhist monks, were brought into the study for the unique role they played in lending legitimacy, fostering collaboration, and ensuring that assistance reached the most vulnerable households.

Snowball sampling was then employed to expand the participant pool beyond the entry-point CSOs, enabling the identification of informal organizations and respected community leaders who were directly involved in recovery. This approach reflected the reality of disaster response networks, where many actors operate informally, and was essential to capture their perspectives despite potential referral bias (Patton, 2014). The targeted sample size of 12 participants was determined to balance depth and diversity in perspectives. This number was sufficient to reach data saturation

within a qualitative case study while remaining feasible for in-depth analysis, as summarized in Table 3.2.

Table 3.2 Research respondent

Number of Respondent	Role of Respondents
4 CSO Leaders	Strategic coordinators who organized recovery initiatives, mobilized resources, and conducted damage assessments.
4 CSO Members	Frontline responders engaged in rescue, food distribution, sanitation, and shelter management.
4 Community Leaders	Elders and monks who mediated between CSOs/donors and households and collected damage data.

3.4 Data Collection Method

The primary method of data collection for this study was semi-structured interviews. This method was selected for its flexibility, allowing the researcher to utilize a predetermined guide of open-ended questions while retaining the capacity to probe for deeper meanings and explore emergent themes (Creswell & Poth, 2018).

The interview guide was systematically designed to address the core research objectives and gather qualitative data mapped directly to 11 selected indicators from the Ten Essentials for Making Cities Resilient framework (UNDRR, 2017c). To ensure the questions aligned perfectly with these goals, the instrument was divided into three thematic sections: resource mobilization capacity, institutional and operational challenges, and how local community networks cooperated during recovery. Questions were open-ended to elicit rich descriptive narratives regarding organizational behaviors, thereby generating the expected depth of qualitative data required to explore localized disaster recovery dynamics.

The interviews lasted approximately 45 to 60 minutes each. They were conducted primarily online via Viber (Rakuten Viber, 2025), which served as a highly accessible and widely adopted platform for local respondents in Myanmar, or

alternatively through standard voice telephone calls depending on participant convenience and digital literacy.

To ensure the trustworthiness of the data, several safeguards were applied (Lincoln & Guba, 1985). Recall bias about the September 2024 flood events was reduced by using timeline prompts based on official situational reports, helping participants align their memories with documented events. Informant bias and social desirability bias were minimized by guaranteeing anonymity and asking questions in a neutral way. Together, these steps strengthened the credibility, dependability, and confirmability of the findings.

With the explicit, informed consent of participants, all interviews were audio-recorded using a dedicated digital device. The recordings were then transcribed verbatim to preserve the exact language and linguistic nuances of respondents, ensuring that the textual data remained accurate and reliable. This process established a rigorous foundation for the subsequent thematic analysis.

3.5 Data Analysis

Collected data from the interviews were analyzed using thematic analysis, a well-established qualitative method for identifying, analyzing, and reporting patterns within the data. To ensure a structured evaluation, this study utilized the UNDRR Ten Essentials for Making Cities Resilient framework as an analytical tool to code and interpret the narratives.

The process followed a systematic sequence. First, all audio-recorded interviews were transcribed verbatim. The researcher then engaged in familiarization by repeatedly reading the transcripts to develop a holistic understanding. Translation gaps arising from local expressions and mixed languages were managed carefully. Key phrases were checked against context, and unclear terms were clarified through follow-up or comparison with situational reports to ensure accuracy. Following this, the raw text was systematically coded using the four selected essentials as deductive categories. Specifically, data regarding coordination and resource sharing were coded under Essential 1 (Organize for Resilience), while data about community engagement

and local communication were grouped under Essential 7 (Societal Capacity) (UNDRR, 2017c). Experiences regarding immediate flood rescue and volunteer capabilities were categorized under Essential 9 (Effective Disaster Response), and narratives detailing long-term rehabilitation efforts were aligned with Essential 10 (Recovery and Build Back Better) (UNDRR, 2017).

The data were systematically coded using the selected UNDRR essentials, with relevant phrases and sentences labeled to identify key concepts. Finally, these codes were grouped into broader themes that directly address the research questions regarding the roles, contributions, and networking strategies of CSOs.

3.6 Ethical Considerations

This research was conducted in strict accordance with ethical principles to ensure the protection and well-being of all participants. Prior to each interview, verbal informed consent was obtained, and the purpose of the study was explained. Participants were informed that their involvement was entirely voluntary and that they could withdraw at any time. To protect participants' privacy, all personal and organizational names were anonymized with pseudonyms in the final thesis, ensuring confidentiality. Finally, all audio recordings and transcripts were stored on a protected, encrypted device to ensure data security.

CHAPTER 4

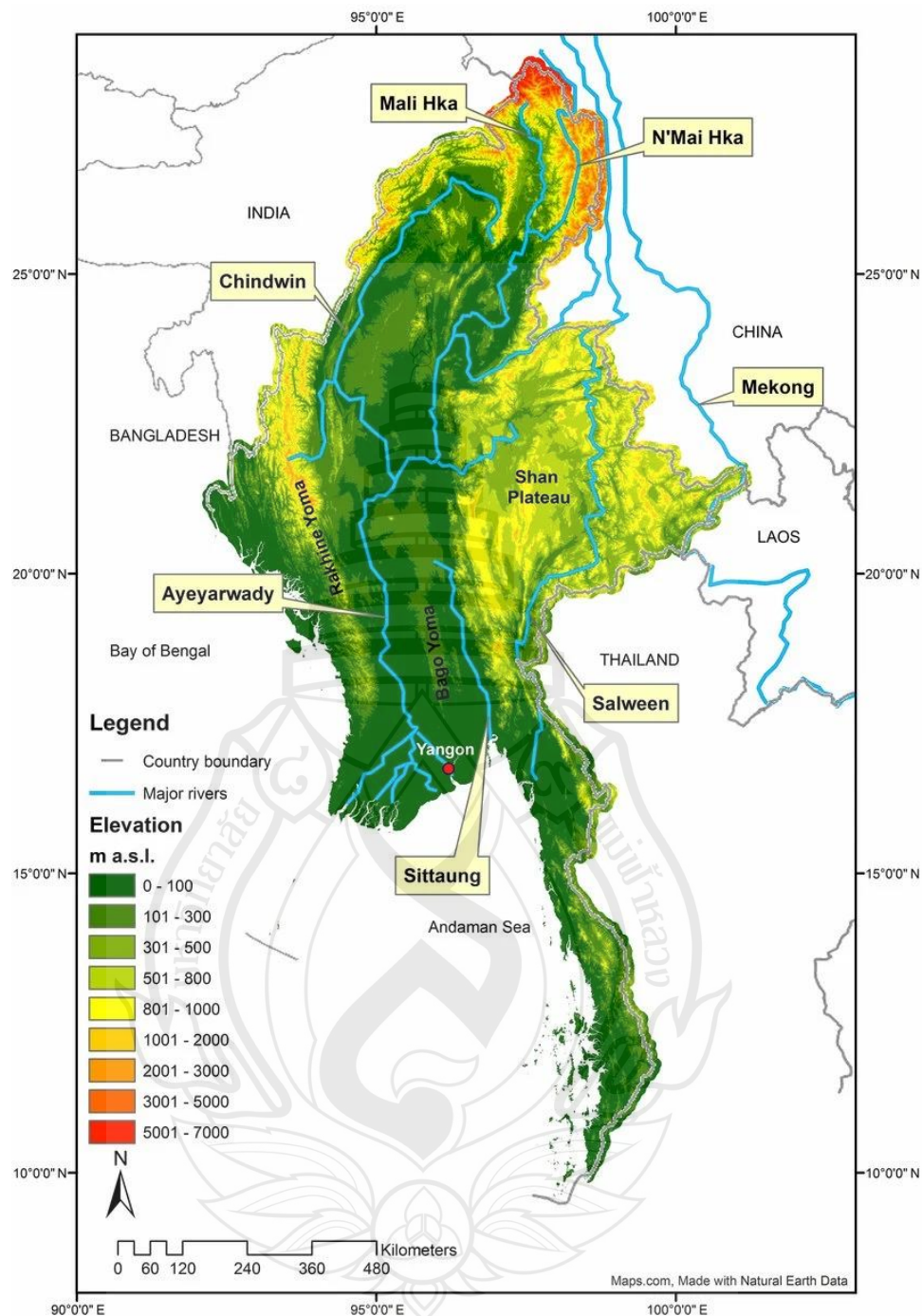
THE CONTEXT OF FLOODING AND DISASTER GOVERNANCE IN MYANMAR

This chapter outlines Myanmar's geographical and climatic vulnerabilities to flooding. It describes the nature and severe socio-economic impacts of these recurring events and examines the formal disaster management architecture of the country. By contextualizing the physical hazard, historical impacts, and the structural limitations of the formal state-led response system, this chapter establishes the critical institutional space and necessity for the community-based actions of the CSOs that form the focus of this study.

4.1 Flood Hazards and Profile in Myanmar

4.1.1 Geography and Topography

Myanmar's geography and climate create a natural landscape that is inherently prone to frequent and severe flooding. The country's topography is a primary factor in this vulnerability, characterized by a large central lowland basin where the majority of the population and agricultural activity is concentrated. This basin is surrounded by steep highlands to the north, east, and west, which serve as the headwaters for the nation's major rivers and create a natural funnel for seasonal water flows (Wuit Yee Kyaw & Pyai Tun, 2023). This vulnerability is rooted in the country's unique physical landscape. As illustrated in Figure 4.1, the steep elevation of the Shan Plateau to the east and the Arakan Mountains to the west creates a hydraulic funnel that directs upstream runoff into the central basins.



Source Taft and Evers (2016)

Figure 4.1 Topographic map of Myanmar highlighting major river basins and elevation profiles

Myanmar's hydrological landscape is dominated by four major river systems: the Ayeyarwady, Chindwin, Sittaung, and Thanlwin (Salween). These rivers converge

into a vast, low-lying, and densely populated delta region before emptying into the Andaman Sea. This delta, one of the largest in Asia, is exceptionally fertile due to alluvial deposits, but its low elevation makes it extremely susceptible to both riverine and coastal flooding, placing its inhabitants and their livelihoods at constant risk (Wuit Yee Kyaw & Pyai Tun, 2023)

This topography is coupled with a tropical monsoon climate that dictates the country's hydrological cycle. The annual southwest monsoon, from approximately June to October, delivers heavy, sustained rainfall that regularly overwhelms river systems and drainage capacity. This intense seasonal precipitation, combined with the country's geography, makes widespread flooding a recurring and predictable hazard, rather than an exceptional event (Wuit Yee Kyaw & Pyai Tun, 2023)

4.1.2 The Nature and Impact of Floods

A flood is fundamentally a hydrological event where an accumulation of water overflows its usual boundaries, such as a river or lake, and temporarily covers normally dry land (FEMA, 2024). However, the literature makes a critical distinction between the event and its consequences. While a “flood” is the phenomenon itself, it only becomes a “flood hazard” when it occurs in a human community, posing a potential danger. A flood is a hydrological event, but it only escalates to a disaster only when its impact overwhelms a community's capacity to cope (Kuang & Liao, 2020). It escalates to a “flood disaster” only when it causes substantial damage and severely interrupts socio-economic activities, overwhelming a community's capacity to cope (Kuang & Liao, 2020). This distinction is essential because not all floods are catastrophic; some can even have positive effects, such as alleviating long-lasting droughts (*Flood | UN-SPIDER Knowledge Portal*, n.d.).

Floods are categorized into several types based on their duration, speed of onset, and localized impacts. A primary distinction is between rapid and slow-onset events. Flash floods, often occurring in urban areas with high runoff, are characterized by rapid rises in water levels and high velocities, offering little warning and causing significant infrastructure damage. Similarly, urban flooding can result from saturated drainage systems, also leading to rapid inundation (*Flood | FEMA.Gov*, n.d.; Mccluskey, 2001). In contrast, slow-onset floods, such as those from sustained rainfall or predictable

seasonal overflows, can last for months, primarily impacting agriculture and blocking access to large areas (Mccluskey, 2001).

Flood types are categorized into six different categories based on their duration and impacts. Table (4.1) provides an overview of these flood types and their characteristic effects.

Table 4.1 Types of flood and characteristic impacts

Type	Duration	Characteristic impacts
Predictable, regular flooding	Up to 90 days	Restricts territorial access; depending on the degree of protection, population displacement and damage are frequently quite minimal.
Increased size of flooding	Up to 180 days	Blocks access to many areas; higher probability of infrastructure collapse, disrupted livelihoods, and widespread evacuation.
Flash flooding	48 hours to multiple weeks	Rapid onset with minimal lead time; high-velocity currents severely damage structures; civic displacement is generally concentrated.
Urban flooding	48 hours to multiple weeks	Swift development triggered by river overflows or overwhelmed drainage networks; impacts critical infrastructure and broader utility grids; localized displacement.
Coastal flooding	Less than 1 week	Frequently accompanied by severe storm winds; structural destruction and population displacement are focused along coastal perimeters based on meteorological scale.
Slow onset from sustained rainfalls	90 to 180 days	Obstructs access routes; highly dependent on the season, agricultural damage can be severe; demographic displacement is minor and heavily tied to food supply stability.

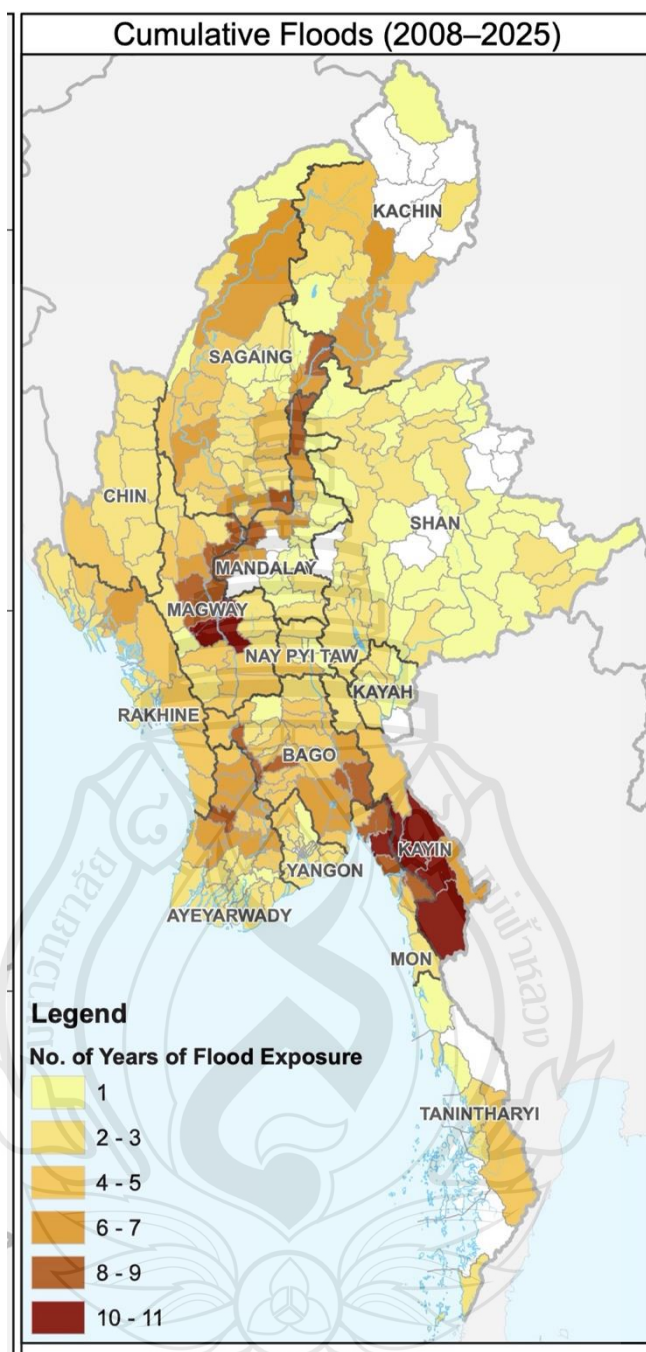
Source Adapted from Mccluskey (2001)

As shown in the table above, floods are categorized into six types based on their duration and impact characteristics. Predictable, regular increases in flooding can last for 3 to 6 months and may cause blocked access, displace people, and damage infrastructure and livelihoods. Flash and urban flooding have similar characteristics with a rapid onset and duration ranging from days to weeks. Due to high-velocity flows, flash floods damage infrastructure and affect drainage systems in urban areas. Coastal flooding is short-term, occurring during storm-related winds and affecting coastlines. On the other hand, slow-onset flooding lasts 3-6 months, disrupting access, damaging crops, displacing people, and affecting food security. Understanding these flood types and impacts is critical for regions like Myanmar, which is highly vulnerable to a range of natural disasters.

In Myanmar, the country's geography directly influences the types of floods that frequently reach this level of devastation. The major river systems give rise to slow-onset riverine floods, which cause widespread, prolonged inundation in the delta and central plains. In contrast, the mountainous terrain, increasing urbanization, and environmental degradation contribute to rapid-onset flash floods, which cause destructive, high-velocity flows with little warning (Mccluskey, 2001).

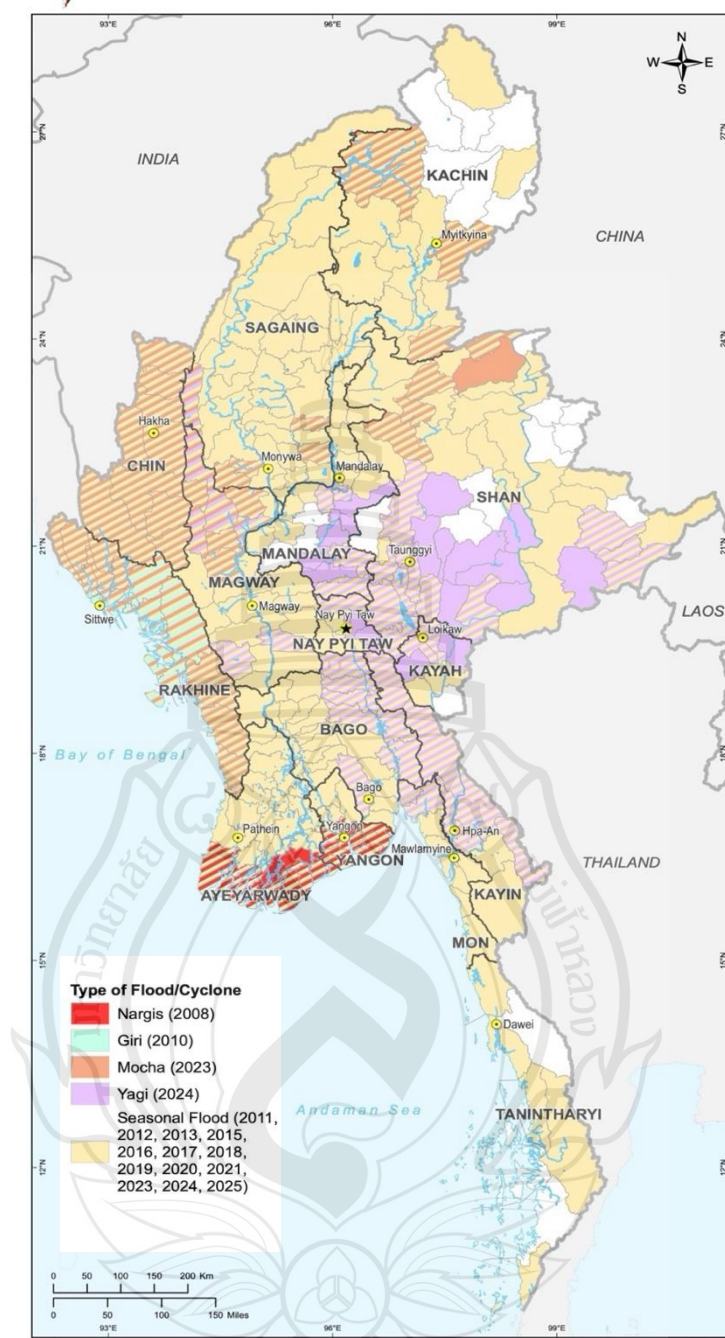
This natural hazard is transformed into a significant national risk by the country's specific socio-economic conditions. Myanmar's heavy dependence on agriculture, with much of its rice cultivation located in vulnerable floodplains, means that floods pose a direct and recurring threat to national food security and the livelihoods of millions. This agricultural vulnerability is a key factor that translates a flood event into a socio-economic disaster (National Disaster Management Committee, 2017). Human activities, particularly widespread deforestation in upstream watersheds, have amplified this risk by stripping the land of its natural capacity to absorb heavy rain, leading to faster and more destructive runoff (Wuit Yee Kyaw & Pyai Tun, 2023).

The devastating consequences of this convergence of hazard, risk, and vulnerability are clearly demonstrated in Myanmar's long history of catastrophic flood events (Wuit Yee Kyaw & Pyai Tun, 2023). The historical patterns and locations of these hazards are shown in Figures 4.2 and 4.3. These maps illustrate that flood hazards are not isolated incidents but recurring phenomena that frequently impact the same geographic areas.



Source Myanmar Information Management Unit [MIMU] (2026a)

Figure 4.2 Cumulative floods over the last 15 years (2008-2025)



Source Adapted from Myanmar Information Management Unit [MIMU] (2026a)

Figure 4.3 Townships affected by floods and cyclones over the last 15 years (2008-2025)

While major national floods are officially recorded in years such as 1974, 1991, 1997, 2006, 2010, 2011, 2015, and 2016, a comprehensive and publicly accessible historical database of these events is not readily available, making long-term trend

analysis difficult (Steijin et al., 2015, as cited in Khaing et al., 2019). The impacts of the three most severe storm-related floods of the last two decades, shown in the table below, highlight the massive scale of the devastation (The World Bank and the Global Facility for Disaster Reduction and Recovery [GFDRR], n.d.). The following table provides a comparative overview of the impacts from three of Myanmar's most significant recent storm-related flood events. The data, drawn from sources including the World Bank, highlights the scale of devastation across key metrics, including the number of people affected, fatalities, and the economic value of exposed assets such as infrastructure and agriculture.

Table 4.2 Comparative impacts of major storm and flood events in Myanmar

	Typhoon Yagi (2024)	Cyclone Mocha (2023)	Cyclone Komen (2015)
Fatalities	>433	148 - 435	132
Population	2,378,957 (exposed population)	5,400,000	1,676,086
Townships	192	39	218
Damages	-	US \$2.24 billion	US \$615.58 million
Exposure	US \$1.94 billion	-	-

Source Adapted from The World Bank (2025)

The data presented above provides a real-world context for the immense and recurring impact of floods on the nation. These events underscore the devastating consequences that occur when natural hazards converge with deep-seated social and economic vulnerabilities, highlighting the urgent need for effective disaster management.

4.2 Institutional Framework for National Disaster Governance

To understand the operational environment in which non-state actors intervene, it is essential to outline the formal state structures legally mandated to manage disasters. Disaster governance in Myanmar is structurally regulated by the Natural Disaster

Management Law (2013) and implemented through the Natural Disaster Management Rules (2015). This legislative framework establishes a centralized, multi-tiered hierarchy designed to command emergency operations from the union level down to the village tract.

At the apex of this structure stands the National Disaster Management Committee (NDMC), which centralizes high-level policy formulation, budget allocation, and international aid screening. Operationally, the Ministry of Social Welfare, Relief and Resettlement, specifically through the Department of Disaster Management (DDM), serves as the primary administrative engine for risk reduction and relief operation. However, vertical implementation relies heavily on the GAD. The GAD acts as the bureaucratic backbone of territorial administration, positioning township-level administrators as the chairpersons of local disaster management bodies.

To understand the structural constraints that CSOs navigate, it is necessary to first examine the formal chain of command established under the state's legislative framework. Table 4.3 illustrates the rigid, multi-tiered institutional hierarchy mandated by the 2013 Natural Disaster Management Law, which centralizes decision-making power within the government administration from the national level down to the village tract.

Table 4.3 Institutional hierarchy under the 2013 law

Level	Management Body	Primary Leadership	Legal Basis (NDM Law 2013)
National	National Disaster Management Committee (NDMC)	Vice President	Section 4 (a)
Regional/State	State/Region Disaster Management Body	Chief Minister	Section 7 (a)
District	District Disaster Management Body	District Administrator	Section 8 (a)
Township	Township Disaster Management Body	Township Administrator	Section 8 (a)
Village / Ward	Ward/Village Tract Disaster Management Body	Village Tract Administrator	Section 8 (a)

The data presented in Table 4.3 confirms that the leadership of every disaster management body is held by a government administrator. This institutional layout creates a rigid, command-and-control system. Under the subsequent Disaster Management Rules (2015), specialized state entities, such as fire brigades, are designated as the primary responders for search-and-rescue activities under departmental direction.

The administrative hierarchy established by the 2013 Law is implemented in practice through the Disaster Management Rules of 2015. These Rules reinforce a state-led approach by positioning civil society organizations, NGOs, and volunteers as auxiliary actors under government supervision rather than autonomous partners. For example, Chapter IV requires the Department to coordinate with civil society organizations and well-wishers only under the Ministry of Social Welfare's guidance (Ministry of Social Welfare, 2015, p.7). Search-and-rescue operations involve fire brigades, Red Cross societies, and NGOs, but these efforts are typically directed by government departments. In this structure, CSOs are formally engaged as auxiliary resources, contributing to disaster response and recovery within a framework overseen by the state.

While official procedures direct resources and early warnings down the established chain of command, the practical effectiveness of this top-down approach varies, especially during rapid-onset disasters. Although CSOs do not have formal representation at the highest levels of command, their involvement on the ground is often essential for bridging gaps between policy and practice. As a result, collaboration between state actors and CSOs, particularly in community mobilization and local response, remains a key area for strengthening disaster governance and enhancing resilience in Myanmar.

4.3 Government and INGO Recovery Actions in 2024 Flood

To fully comprehend the operational landscape of the 2024 flood response, it is necessary to first examine the emergency relief and early rehabilitation operations initiated by formal state mechanisms and international institutions. This institutional overview provides the broader structural baseline against which localized, grassroots

actions must be assessed. In the immediate aftermath of the widespread flooding triggered by Typhoon Yagi in September 2024, formal state mechanisms and international institutions mobilized mass emergency relief operations across the Nay Pyi Taw Union Territory and adjacent affected regions. Persistent heavy rainfall led to the catastrophic overflow of local river systems, submerging critical road networks, bridges, railways, power lines, and residential tracts in low-lying village environments (Global New Light of Myanmar, 2024c; Myanmar International TV, 2024).

Formal search-and-rescue operations were launched by Tatmadaw personnel, the Myanmar Police Force, the Fire Services Department, and local administrative bodies across heavily impacted areas of the Nay Pyi Taw Union Territory, including Zeyathiri, Pyinmana, and Lewe Township. Guided by the National Disaster Management Committee, the Ministry of Social Welfare, Relief and Resettlement, and the Department of Disaster Management, state-led interventions concentrated on macro-level logistics, including evacuating flood victims to temporary shelters, clearing major transport routes, and distributing emergency relief packages (Global New Light Of Myanmar, 2024a). On a national scale, the 2024 floods resulted in 384 verified fatalities and the displacement of 148,643 individuals across nine states and regions. To address the magnitude of this dislocation, the state allocated a macro-recovery budget of Ks 30 billion to manage early-stage logistics and infrastructure rehabilitation (Ministry of Social Welfare, 2024).

INGOs and United Nations agencies deployed humanitarian aid to support the broader rehabilitation infrastructure as the crisis transitioned from emergency response into early-stage recovery. The United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) and the World Food Programme (WFP) coordinated the delivery of mass food rations and standardized hygiene kits to central distribution points to stabilize affected populations (WFP, 2024). Concurrently, the International Federation of Red Cross and Red Crescent Societies (IFRC), operating alongside the Myanmar Red Cross Society, deployed mobile health teams, distributed water purification inputs, and offered localized psychosocial support to lay the foundation for community stabilization (IFRC, 2024a).

This institutional mobilization took place within an intensely challenging operational environment. As a result, a natural friction emerged between centralized

administrative planning and rapid-onset field realities during the transition from relief to recovery. While top-down state entities and international agencies successfully managed broad resource flows, extensive physical infrastructure damage frequently severed formal communication and transport links between township administrators and isolated peripheral communities (Global New Light Of Myanmar, 2024b). Both state data and INGO recovery tracking assessments acknowledged a profound implementation lag regarding economic and long-term livelihood restoration. Consequently, a substantial proportion of rural households remained heavily dependent on emergency aid long after the initial floodwaters receded. (IFRC, 2024b; UNOCHA, 2024).

This complex operational landscape underscores the limits of formal, state-led disaster systems when facing a rapid onset severe flooding. While centralized structures are capable of managing large-scale resource distribution, they encounter natural boundaries when trying to reach every impacted community on the ground. This creates an essential structural requirement for complementary grassroots action to bridge the immediate functional gaps across both the acute response and long-term recovery phases.

4.4 The Evolution of Civil Society in National Disaster Policy

The roles of CSOs in Myanmar's 2024 flood recovery are deeply rooted in the nation's history. The capacity and nature of these organizations have evolved through distinct political eras, shaping their current functions, network structures, and community relationships.

The roles of CSOs in Myanmar's 2024 flood recovery are deeply rooted in a long history of political adaptation and community resilience. The origins of this civic space trace back to informal, village-level mutual assistance groups rooted in Buddhist and Christian monastic traditions that managed localized social welfare needs like funerals, healthcare, and education (ADB, 2015). This self-help foundation formalized during the colonial and early independence eras as groups like the Young Men's Buddhist Association (YMBA) and student movements expanded religious and

educational promotion into structured societal advocacy (Maung, 2019). However, this growth was severely restricted following the 1962 military coup, which systematically suppressed independent CSOs through mechanisms like the 1908 Unlawful Associations Law and replaced authentic civic space with state-organized entities (Government Oriented Non-Government Organizations) like the Myanmar Red Cross Society (ADB, 2015; Matelski, 2024). A gradual re-emergence of civil society eventually began after the 1988 pro-democracy uprising. During the 1990s in ethnic minority ceasefire regions where local CSOs stepped in as primary health and education providers to fill critical operational voids left by the central government (Jolliffe, 2014).

However, the most significant turning point for modern Myanmar civil society was the state's devastatingly inadequate response to Cyclone Nargis in 2008. The government's failure created a massive gap that was filled by a spontaneous and widespread mobilization of ordinary citizens, monks, and informal volunteer groups. This event is generally regarded as the rebirth of Myanmar's civil society, as thousands of local actors demonstrated their ability to provide aid effectively and build trust with communities where the government had failed (Maung, 2019). The term civil society itself became a dominant part of Myanmar's vocabulary following this disaster.

The post-Nargis period and the democratic transition beginning in 2011 marked an era of rapid growth and formalization. For the first time in decades, CSOs had significant space to operate. The enactment of the 2014 Association Registration Law established a legal framework for their registration and formal operation (ICNL, 2023). This political opening allowed CSOs to partner with international organizations, develop new capacities, and engage more openly in advocacy. However, the role available to CSOs has decreased since the post-2021 political context. Furthermore, the replacement of the 2014 law with the more restrictive 2022 Organization Registration Law has reintroduced significant challenges, forcing many CSOs to navigate a more hostile, more closely monitored environment. The current roles of CSOs take place within a historical context of resilience shaped by political change.

While the historical evolution of CSOs in Myanmar reveals their deep community roots and resilience, their formal role in disaster management is officially defined by a series of key national laws and policies enacted during the democratic transition period from 2010 to 2020. An analysis of these documents reveals a clear

progression in the government's official stance, moving from a state-centric control position to a more inclusive, multi-stakeholder approach. These policies provide the formal framework for CSO engagement and reflect the government's growing recognition of their importance in building national and community resilience.

While the legal and regulatory frameworks of 2013 and 2015 emphasize state-centric control and functional fragmentation, a significant shift in the national disaster management philosophy began to emerge in the late 2010s. Reflecting the global influence of the Sendai Framework, the Myanmar Action Plan on Disaster Risk Reduction (MAPDRR) 2017 signals a significant conceptual shift. Moving beyond simple coordination, it actively promotes a people-centered and inclusive approach to be implemented through whole-of-society engagement (National Disaster Management Committee, 2017). The document acknowledges that effective risk reduction cannot be achieved solely by the government and requires the active participation of all stakeholders.

The document emphasizes that reaching these targets depends on multi-stakeholder inclusivity, necessitating joint action and resource mobilization. Such efforts rely on bridging partnerships between development agencies, government bodies, non-governmental actors, and corporate entities (MNF-CDR, 2017). This language officially endorses CSOs as equal and essential stakeholders in the project of building community resilience. The framework repeatedly emphasizes the need to promote partnerships with civil society and support civil society organizations in scaling up community-based interventions, acknowledging that local groups are central to a collaborative governance model (MNF-CDR, 2017). It acknowledges that CSOs are not just implementers of government plans but are central to a collaborative governance model. This framework, more than any other official document from the period, aligns with the modern disaster management paradigm, which views CSOs as indispensable to achieving effective and sustainable outcomes.

The plan explicitly identifies CSOs as key partners, particularly at the community level. As part of its priority action to strengthen community-based disaster risk management, it mandates the distribution of risk data by actively engaging non-governmental organizations and local grassroots groups (National Disaster Management Committee, 2017). Furthermore, CSOs are listed as supporting partners

in numerous priority actions, from conducting risk assessments to implementing community-based preparedness programs. This represents a clear evolution from the 2013 Law, viewing CSOs as valuable partners with unique capacities, especially in bridging the gap between official bodies and local communities.

This inclusive vision was further developed in the National Framework for Community Disaster Resilience. The framework describes resilience as a shared responsibility and articulates a vision for a whole-of-society effort. It places CSOs at the center of governance, not only as implementers but as essential stakeholders. Among national policy documents, this framework stands out as the most progressive in its recognition of CSOs.

While the initial legislation favored state-centric control, a chronological analysis of subsequent policy documents reveals a significant conceptual evolution regarding the status of non-state actors. Table 4.4 offers a comparative synthesis of four key national policies, demonstrating how the official role of CSOs has transitioned from supervised implementers to essential stakeholders across the eleven indicators of community resilience used in this research.

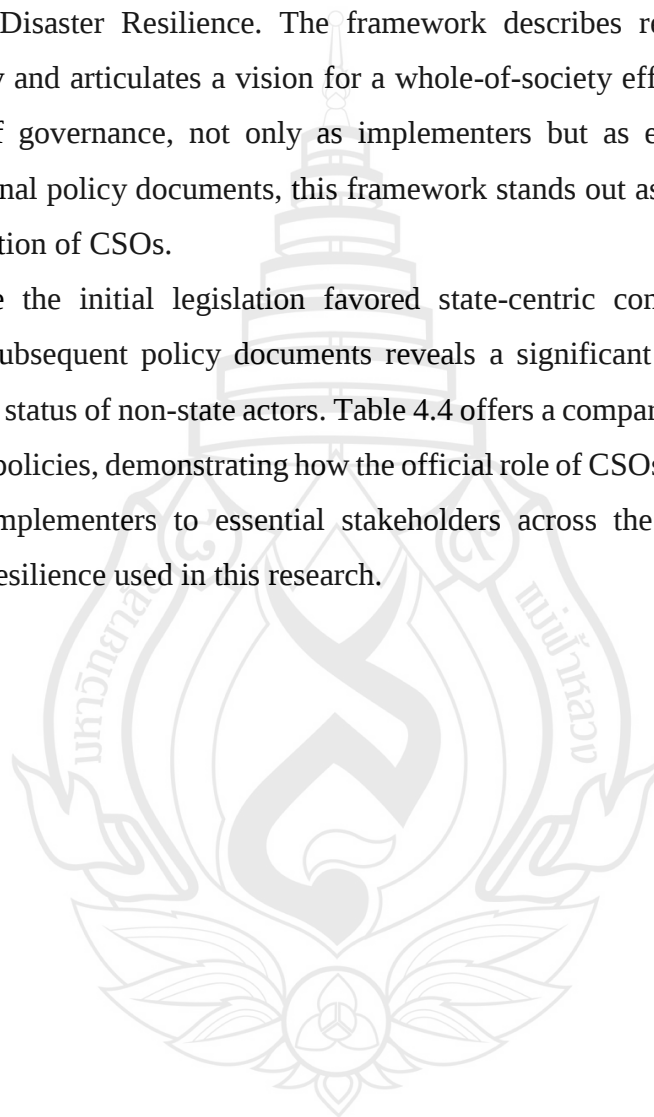


Table 4.4 Comparative analysis of CSO roles across national policies and laws

Indicator	Disaster Management Law 2013	Disaster Management Rules 2015	Myanmar Action Plan on DRR	National Framework for Community Disaster Resilience	Implication for CSO / Volunteer Roles
P1.1 DRR integration in planning	DRR included in national disaster management responsibilities	Procedures for DRR planning and coordination	DRR integrated into national and sectoral development plans	Resilience integrated into community development planning	Enables CSOs to engage in planning processes and advocate for risk-sensitive development.
P1.2 Multi-agency coordination mechanism	Establishes national disaster management committees	Defines coordination procedures among agencies	Promotes multi-stakeholder coordination including NGOs	Encourages collaboration between government and communities	Provides institutional space for CSOs to participate in coordination and implementation.
P1.3 Integration of resilience with development	Limited reference to resilience within disaster management system	Focus on preparedness and risk reduction activities	Links DRR with sustainable development and climate adaptation	Promotes resilience-based community development	Encourages CSOs to support resilience-focused programs across development sectors.

Table 4.4 (continued)

Indicator	Disaster Management Law 2013	Disaster Management Rules 2015	Myanmar Action Plan on DRR	National Framework for Community Disaster Resilience	Implication for CSO / Volunteer Roles
P7.1 Participation of grassroots organizations	Community participation mentioned generally	Encourages involvement of local organizations in disaster activities	Promotes community and NGO participation	Strong emphasis on community-led resilience initiatives	Creates clearer opportunities for grassroots CSO involvement in DRR activities.
P7.2 Training for vulnerable groups	Mentions training and awareness for communities	Provides guidelines for disaster preparedness training	Includes capacity-building programs for vulnerable groups	Focuses on community training and resilience building	Allows CSOs to deliver training and capacity-building for vulnerable communities.
P7.4 Citizen engagement and communication	Public awareness activities mentioned	Communication and information sharing procedures outlined	Encourages public awareness and community engagement	Supports participatory communication at community level	Positions CSOs as intermediaries for community outreach and information sharing.

Table 4.4 (continued)

Indicator	Disaster Management Law 2013	Disaster Management Rules 2015	Myanmar Action Plan on DRR	National Framework for Community Disaster Resilience	Implication for CSO / Volunteer Roles
P9.2 Disaster preparedness and response planning	Requires disaster preparedness and response plans	Provides operational procedures for preparedness planning	Strategic preparedness planning included	Supports local preparedness and contingency planning	Enables CSOs to contribute to preparedness planning and community-level actions.
P9.3 Institutional staffing capacity	Assigns responsibilities to government departments	Defines roles of disaster management institutions	Promotes capacity strengthening of institutions	Encourages capacity development at local level	CSOs and volunteers can help address local capacity and staffing gaps.
P9.6 Emergency operations centre coordination	Mentions coordination during disaster response	Procedures for emergency response coordination	Supports coordinated emergency management systems	Limited reference to EOC coordination	Creates opportunities for CSO liaison and information-sharing roles.

Table 4.4 (continued)

Indicator	Disaster Management Law 2013	Disaster Management Rules 2015	Myanmar Action Plan on DRR	National Framework for Community Disaster Resilience	Implication for CSO / Volunteer Roles
P9.7 Disaster drills involving public participation	Limited reference to drills	Includes disaster drills and simulation exercises	Encourages national and community drills	Promotes community-based disaster preparedness exercises	Supports CSO involvement in drills, preparedness activities, and evaluations.
P10.1 Post-disaster recovery strategy	Provides framework for rehabilitation and reconstruction	Includes recovery procedures	Comprehensive recovery and resilience approach	Focus on community recovery and rebuilding	Enables CSOs to support recovery, needs assessments, and community rebuilding.

The chronological progression mapped in Table 4.4 highlights an important shift in Myanmar's disaster management policy framework. The Natural Disaster Management Law and its accompanying Natural Disaster Management Rules established a system largely characterized by state-led coordination and administrative control, reflecting a traditional centralized governance model. In contrast, later policy instruments such as the Myanmar Action Plan on Disaster Risk Reduction and the National Framework for Community Disaster Resilience introduce a more resilience-oriented approach that emphasizes community engagement and multi-stakeholder participation. Within this evolving framework, CSOs appear increasingly recognized as important partners, particularly in areas such as community participation, capacity building, and disaster preparedness planning.

However, the results of this study indicate that such policy evolution remains incomplete in practice. A persistent implementation gap emerges at the intersection of progressive policy language and the rigid, legally binding registration requirements of the 2015 Rules. In a centralized administrative culture, local authorities frequently revert to the older supervised model of engagement, especially under the pressures of rapid-onset flood events. The 2024 flood response in Lewe Township shows that organization, coordination, and resource capacity were not shaped only by the MAPDRR framework. They were also influenced by how local networks managed different approaches in real time. This friction underscores the difficulty of translating resilience-oriented frameworks into operational realities.

The following sections, therefore, move from this policy analysis to the field findings. By examining the lived experiences of CSO leaders, members, and communities during the 2024 floods, this chapter will demonstrate how these organizations bridge the systemic challenges created by the policy-to-practice gap, functioning as the actual agents of community resilience when formal structures are overwhelmed.

CHAPTER 5

FINDINGS

The 2024 flood disaster triggered by Typhoon Yagi exposed fundamental structural challenges in Myanmar's disaster governance, particularly in Lewe Township of the Nay Pyi Taw Union Territory. The rapid onset of flash floods overwhelmed formal state institutions, leaving communities isolated and reliant on improvised survival strategies. In this context, CSOs and local volunteer networks emerged as the primary actors, assuming responsibilities that extended far beyond their formal designation as supporting partners under national disaster policies.

This chapter examines the operational functions of CSOs during the acute response and early recovery phases of the flood. Drawing on empirical evidence from interviews with CSO leaders, village heads, and community figures, it highlights how CSOs addressed implementation gaps in early warning, search and rescue, logistical coordination, and social service restoration. The analysis underscores that CSOs were not merely auxiliary participants but central agents of survival and governance on the ground.

To ensure analytical rigor, the assessment of CSO roles and networks is structured around 11 resilience indicators derived from the UNDRR Ten Essentials for Making Cities Resilient framework. Specifically, the analysis applies indicators under Essential 1 (Organize for Resilience), Essential 7 (Societal Capacity), Essential 9 (Ensure Effective Disaster Response), and Essential 10 (Expedite Recovery and Build Back Better). These include indicators such as P1.2 (multi-agency coordination), P7.1 (community participation), P7.4 (risk communication), P9.2 (disaster preparedness planning), and P10.1 (recovery strategy). These indicators provide a standardized lens through which the effectiveness of CSO actions can be assessed, linking local practices to internationally recognized benchmarks of disaster risk reduction.

By situating these roles within the broader governance landscape, the chapter demonstrates how CSOs transformed informal networks, religious institutions, and community solidarity into functional systems of risk communication, emergency

response, and recovery support. At the same time, it reveals the fragility of this model, where resource exhaustion and uneven state collaboration limited long-term recovery. The findings provide a foundation for understanding the evolving role of CSOs in Myanmar's disaster governance and the challenges of sustaining community-led capacity in the absence of integrated institutional support.

5.1 Roles and Functions of the CSOs based on Typhoon Yagi 2024

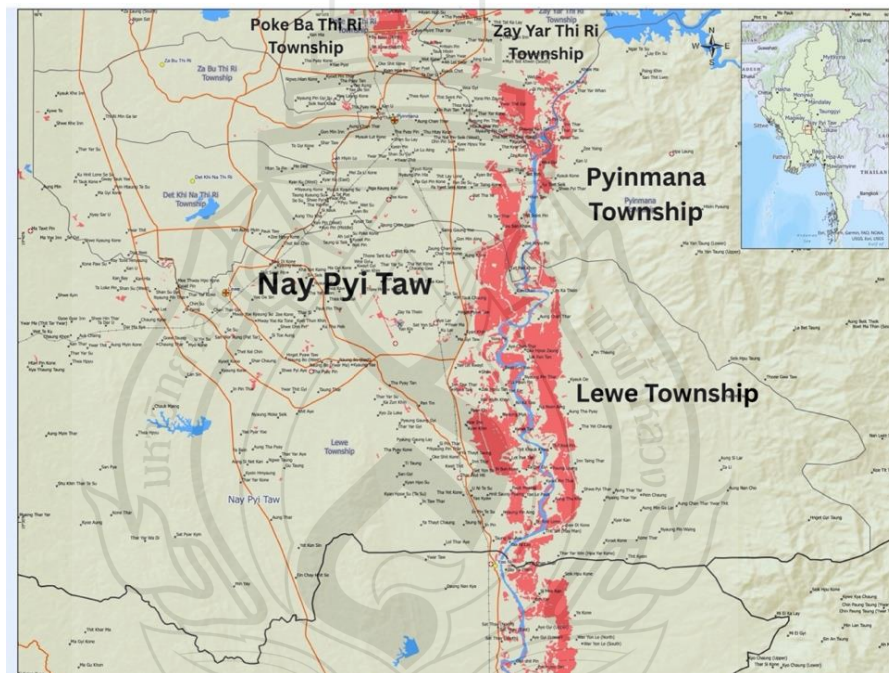
Prior to examining the specific operational roles and functions executed by civil society organizations, it is critical to contextualize the systemic situation and vulnerability landscape of the study area. The 2024 flood disaster, triggered by the remnants of Typhoon Yagi, posed an unprecedented challenge to Myanmar's disaster management framework, particularly in the Nay Pyi Taw Union Territory. In Lewe Township, the rapid onset of flash floods and the resulting overflow of the Sin Thay Creek, Sittaung, and Paung Laung river systems created a disaster that exceeded the immediate response capacity of formal state institutions.

While the MAPDRR (2017) and the national framework position CSOs as supporting partners, the actual events of 2024 necessitated a radical shift in these roles. In the absence of localized standard operating procedures and insufficient state-led resource capacity, CSOs and local volunteer networks emerged as the primary functional actors on the ground. This analysis is guided by selected indicators from the UNDRR Ten Essentials for Making Cities Resilient. These selected indicators are particularly related to governance, community participation, preparedness, and recovery (P1.2, P7.1, P7.2, P9.3, P9.6 and P10.1), which provide the framework for evaluating the resilience gaps and CSO contributions.

The following analysis is grounded in the empirical findings gathered from qualitative interviews with CSO leaders, village heads, and religious figures. A central theme emerging from these narratives is the existence of a functional gap. A period during the first 72 hours of the disaster where formal state intervention was largely absent, leaving communities to rely on improvised survival strategies. This operational gap highlights a vulnerability in local readiness, specifically reflecting challenges

related to the indicator P 9.2, which assesses the presence and effectiveness of a formal disaster preparedness and emergency response plan. This gap was created by a significant disconnect between formal early warning systems and local risk perception.

To complement these narratives, Figure 5.1 presents satellite evidence of the September 2024 flood in Nay Pyi Taw. The map, adapted from the Myanmar Information Management Unit (MIMU), highlights inundated areas in red and illustrates the disaster's physical scale. Satellite data from the peak of the flood shows how land-based access routes were destroyed. The map confirms that the flooding was not limited to a single area but spread across the region, cutting off villages from formal state resources.



Source Adapted Myanmar Information Management Unit [MIMU] (2024)

Figure 5.1 Satellite-derived flood inundation map of Nay Pyi Taw (September 2024)

The data reveals that while warnings were sometimes issued, they were often too late or lacked the actionable detail required for a community that had never experienced a flood of this magnitude. Because formal warning systems failed to provide actionable information, this exposes a weakness in the risk communication framework under the indicator P 7.4 (Citizen engagement and communications). This physical isolation and the limitations of early warnings meant that communication had

to be managed completely differently at the local level. This challenge leads directly into how information was shared across the township.

5.1.1 Information Interrelationship for Local Risk Communication

The empirical findings reveal a significant implementation gap between formal technical early warning systems and local risk perception. The gap observed in early warning and local risk perception can be better understood through indicators on community participation and communication (P7.1, P7.4). These indicators stress the importance of grassroots involvement, training for vulnerable populations, and effective citizen engagement. During the 2024 flood, each of these areas showed challenges. This implementation gap between technical early alerts and the actual readiness of rural households to take immediate action created a severe information lag on the ground. As one village leader recalled:

“The flood warning for the village was very late... the water rushed in suddenly; it was very fast. The announcement time was quite late... Immediately, some people evacuated early using three-wheelers, and small cars... Within about 45 minutes of that round trip, when I got back for the next one, I was trapped.”

Village leader 3 (personal communication, 2025, 14 December)

This narrative illustrates a critical failure in early warning. When the formal system failed to provide adequate lead time, the community was forced to rely on improvised resource capacity, such as three-wheelers and small trucks, which were eventually submerged and rendered useless by the rising current. This preparedness weakness was further exacerbated by a lack of basic life-saving equipment. In the most desperate moments before organized CSOs could arrive, village youth were forced to innovate with available materials. As another village leader described:

“Our village youth, who didn't even have life jackets, tied empty water bottles to themselves to keep afloat. We stretched ropes and carried children and the elderly on our shoulders to get them to the main road.”

Village leader 3 (personal communication, 2025, 14 December)

Such accounts provide clear evidence of the implementation gap between the resilience-oriented policies and the lived realities of village-level response. While national frameworks emphasize high-level coordination, the ground reality during the first 72 hours was defined by localized survival strategies and a reliance on social capital rather than formal infrastructure. This directly reflects limitations in citizen engagement and communication indicators (P7.1, P7.4), where grassroots participation and training were insufficient to overcome perception gaps.

Even when warnings reached the village level, they often failed to trigger evacuation because residents relied on outdated local knowledge. In Lewe, many judged the 2024 risk against memories of past floods that were far less severe. This created a belief gap where the warning was heard but discounted as unlikely. One CSO coordinator recalled:

“Even though we warned them to move since nightfall, they wouldn’t move, saying, ‘It’s unlikely; we’ve lived here for 60 years, and it has never flooded like this.’ Only when the water actually rose did they come out onto the roads... some were trapped in 10-wheel trucks that couldn’t drive any further.”

Organization Member 1 (personal communication, 2025, 14 December)

This account demonstrates that local knowledge, usually a strength, became a liability during an unprecedented event such as Typhoon Yagi. The reliance on a 60-year memory caused residents to severely underestimate the hazard., as some residents prioritized belongings over their lives.

Another finding highlights the use of non-disaster networks for emergency communication. One coordinator, who also served as a blood coordinator, drew on a database of 800 blood donors to disseminate alerts. Because these donors were spread across every village, the CSO already had a trusted contact in nearly every location. As he explained:

“Most communication was by phone... because I have to link blood donors from the villages, our phones are already connected to the entire network... while linking donors and those in need, they call this phone if they need help, whether it’s a natural disaster or anything else.”

Organization Member 1 (personal communication, 2025, 14 December)

This shows that early warning was most effective when it leveraged established social capital. The blood donor network served as a shadow communication system, receiving significantly more calls than government lines, proving that trust and familiarity were as important as technical infrastructure. This highlights the contribution of CSOs toward the indicator on citizen engagement (P7.4), as their trusted networks helped transform abstract risk into urgent, actionable communication.

As the water moved downstream from Tatkon and Pyinmana toward Lewe, CSOs also acted as a mobile warning system. They followed the flood's path to provide real-time updates. One member described:

“As Sin Thay Creek entered the Paung Laung River, we had to use megaphones to shout to the villages along the river to evacuate... some had nowhere to go, so we had to arrange for them at the monasteries.”

Organization Member 1 (personal communication, 2025, 14 December)

These narratives confirm that CSOs acted as trusted intermediaries, providing the local credibility that formal state broadcasts lacked. By using megaphones, phone networks, and trusted community channels, they transformed technical announcements into urgent calls to action. Their ability to pre-evacuate downstream villages while the water was still upstream saved thousands of lives. This effort was hindered by reliance on past flood experiences, which led communities to underestimate the risk. Ultimately, this role demonstrates that establishing an effective information interrelationship for local risk communication depends on trust-based, community-led actions that directly overcome local perception gaps.

5.1.2 Frontline Participation in Emergency Response and Recovery Measures

This section analyzes CSO involvement in emergency response and early recovery through selected indicators, especially those on preparedness, emergency response, coordination, and recovery (P 9.2, P 9.3, P 9.6, P 10.1). The empirical findings show that, in the immediate aftermath of the initial surge, the most urgent role for CSOs was as the primary search-and-rescue agent. Although the National Disaster Management Law (2013) and the 2015 Rules mandate that such operations be led by state agencies, the 2024 floods revealed a profound gap in local-level resources and equipment capacity. Formal rescue teams were quickly overwhelmed by the scale of

the flooding and hindered by a lack of specialized motorized craft. This situation illustrates challenges identified in the indicators, particularly those on preparedness and emergency response capacity (P9.2, P9.3). In this context, CSOs carried a significant part of the physical and logistical burden of the rescue, filling a critical period where immediate institutional intervention was limited by the unprecedented scale of the flash floods.

The evidence shows that this role was characterized by extreme improvisation amid life-threatening equipment shortages. When the floodwaters became too deep, people tried to use improvised boats made from cattle troughs. However, these boats were unstable and often overturned in the strong current. In this situation, CSOs provided technical equipment and support that the government could not supply quickly. Acting as rapid financial and logistical intermediaries, they used organizational funds and community donations to rent motorized boats from neighboring regions and coordinate with specialized associations. As one CSO member recounted:

“The area had turned into a vast sheet of water, making rescues very difficult. We coordinated with other groups to rent motorized boats the next morning... associations from nearby districts arrived with boats, and when local charity boats joined, the relief efforts became much stronger.”

Organization Member 4 (personal communication, 2025, 15 December)

This account illustrates that resource capacity in a crisis is not simply a measure of state-owned inventory, but a reflection of the geographic reach and financial flexibility of the CSO network. By sourcing boats from outside the immediate disaster zone, CSOs filled the technical gap until formal government equipment arrived. This finding demonstrates the importance of multi-actor coordination as highlighted in the indicator on emergency operations coordination (P9.6).

A second finding highlights the CSOs’ ability to operationalize inclusive participation through a human-centered lens. While formal state rescue operations often focus on broad evacuation, CSOs relied on their community knowledge to identify and prioritize those most at risk, including children, the elderly, and the sick. The rescue was not only a matter of transport, but also of managing extreme psychological distress. One CSO member described the intensity of this operation:

“On the 9th, our team was able to transport about 300 to 400 people, including the elderly, the sick, and children, to safe areas... Some children and the elderly who couldn’t walk were anxious about moving; some were crying and wailing. During those times, we helped pack their essential belongings as much as we could and sent them to safe ground.”

Organization Member 1 (personal communication, 2025, 14 December)

This ability to manage the emotional needs of vulnerable populations while physically moving them through rising waters demonstrates that CSOs provided a layer of empathetic response that formal military or administrative protocols often overlooked. Their success was rooted in local knowledge: knowing exactly which households had bedridden individuals and performing targeted rescues long before centralized aid could map the village's needs.

The findings also show that coordination during the rescue phase was not directed top-down by government authorities but instead emerged horizontally among CSOs. The scale of the response was managed through highly structured yet informal coalitions of multiple associations. One member explained:

“About 14 teams split up on the first day, with one team assigned to each village... Within the township alone, we had to move people from about 30 villages... We also had to inform the village administrators of the plan in advance to help house the local residents in the monasteries.”

Organization Member 1 (personal communication, 2025, 14 December)

This kind of peer-to-peer coordination aligns with the indicators on multi-agency coordination and emergency operations coordination (P1.2, P9.6), even though these efforts were undertaken primarily by CSOs, donors, and community networks rather than through formal state collaboration.

While the search-and-rescue phase is the most visible aspect of disaster response, the subsequent logistical management of displaced populations is the most sustained functional role of CSOs. Under the MAPDRR (2017), the state is theoretically responsible for providing emergency shelters and ensuring food security. The findings

show that CSOs acted as logistical coordinators, setting up local support systems that operated more quickly than the centralized state mechanisms.

Sheltering was managed almost entirely through partnerships between CSOs and religious institutions. This coordination was not dictated by a central government plan, but by the familiarity and trust between CSO coordinators and local monks. As one coordinator explained:

“We had to arrange who would stay at which monastery... we had to request the monks at familiar monasteries to allow the flood evacuees to stay... In a single night, we were able to transport about 1,500 to 2,000 people to evacuation camps.”

Organization Member 1 (personal communication, 2025, 14 December)

This account demonstrates that monasteries became rescue camps, mobilized as pre-existing infrastructure that offered immediate safety. The scale of managing up to 2,000 people in a single night showed that CSOs were not simply assisting with sheltering but were designing the township’s temporary housing strategy.

Another critical finding was the immediate sustenance gap, the period between the flood’s onset and the stabilization of the food supply. In many villages, residents were trapped for up to 48 hours without food before CSOs could reach them. One member recalled:

“For those trapped for about two nights (some hadn’t eaten for a day and a half or two days)... we had to deliver food packets for about 45 villages straight... we also had to deliver to those who couldn’t reach the rescue camps.”

Organization Member 1 (personal communication, 2025, 14 December)

By delivering meals to 45 villages simultaneously, CSOs functioned as a decentralized delivery network, ensuring that food shortages did not escalate into a secondary health crisis. This logistics operation relied on the practical use of community resources. CSOs helped fill transport shortages by mobilizing light trucks and small cars, turning everyday vehicles into tools for mass evacuation. As one account described:

“Under the association’s leadership, local village vehicles (tractors/small cars) also joined in to help. One vehicle could hold 30 to 50 people... local village cars also transported them without taking any fees.”

Organization Leader 1 (personal communication, 2025, 13 November)

Taken together, these narratives identify a clear transition: CSOs moved from being small associations to logistical coordinators. Their ability to manage resource capacity by repurposing tractors for mass transit and monasteries for mass housing provided a safety net that the formal administration could not scale quickly enough. This role was supported by social capital, showing that logistics in Myanmar’s disaster context is not only a technical process but also a social one, built on trust, networks, and community solidarity. This closely aligns with the emphasis on indicators for multi-agency collaboration (P1.2) and effective coordination (P9.6). Furthermore, this frontline mobilization during the acute emergency phase established the baseline coordination mechanisms necessary to launch early-stage recovery measures, reflecting the importance of early recovery planning (P10.1). This marked a functional transition from immediate life-saving operations to the stabilization of affected community spaces.

5.1.3 Functions of Social Service Restoration

In the aftermath of the 2024 flood, the functional role of CSOs shifted from high-intensity rescue to targeted technical recovery. The findings reveal a recovery paradox: while CSOs and religious leaders successfully managed the immediate technical needs such as water, sanitation, and food assistance, the long-term socio-economic recovery remains fragmented. This stage showed a clear gap between the limited support from institutional mechanisms and the ongoing, self-reliant efforts of the community. Such a gap underscores broader challenges highlighted by the recovery planning indicator (P10.1).

The most immediate and successful recovery function was the restoration of water, sanitation, and hygiene. CSOs and local youth volunteers organized intensive operations to prevent waterborne disease, often working for twenty consecutive days. As one village leader recalled:

“Villagers cleared the mud from their own houses, while... CSOs helped clear monasteries and schools. Wells were cleaned twice; about 90 wells were cleared in this village... They provided toilet bowls and pipes for everything that was destroyed.”

Community Leader 1 (personal communication, 2025, 26 November)

This intervention reflected high levels of community-led adaptability. In several villages, CSOs and local leaders organized localized fundraising strategies, establishing donation posts to collect small amounts of money from commuters to support affected families and repair damaged roads when heavy machinery was unavailable. The recovery of physical access was therefore an organic, community-led endeavor rather than a fully funded public works project.

The research also highlights the inconsistency of state-led recovery support. While the Township GAD and other agencies recorded losses, the actual distribution of aid was highly uneven across the township. In a few specific cases, the state provided compensation for livestock and housing. As one account noted:

“Some who lost their homes received about 2.4 million Kyats through the Township GAD and are trying to buy land... Those who lost buffalo received calves, and every house received baby chicks, but pig owners and farmers received no compensation.”

Community Leader 2 (personal communication, 2025, 14 December)

Such support, however, was the exception rather than the rule. Many villages received no compensation for destroyed crops, water pumps, or tractors. In places where the state promised assistance, such as repayments for agricultural costs or machinery for tilling, the promises often went unfulfilled even months later. This created a secondary economic loss that remained unaddressed, as defined in the UNDRR Post-Disaster Needs Assessment criteria. This systemic failure to deliver comprehensive agricultural aid reflects a divergence from the integrated recovery planning standards set by the recovery planning indicator (P10.1).

Deprived of immediate state-led agricultural recovery support or subsidized inputs, farmers were structurally forced to borrow from informal, private lenders at high interest rates. This systemic shift from direct hazard damage to long-term financial

liability triggered compounding cycles of debt that severely threatened the township's long-term socio-economic resilience. Overall, these outcomes show that state interventions fell short of the integrated recovery planning standards defined under UNDRR Indicator P10.1. Effective recovery should be coordinated, multi-sectoral, and focused on restoring both livelihoods and community stability.

The evidence confirms that the CSO's role in recovery was an early-stage intervention that proved highly effective but financially fragile. Some organizations managed projects, cleaning nearly one hundred wells and distributing thousands of latrine parts. Others, however, ended their activities soon after the relief phase, not only because of resource exhaustion but also because they identified themselves as small, village-based associations lacking sustained funding and institutional capacity to continue recovery work. The state's role was perceived as specialized yet narrow. The Health Department was present in most villages, conducting well and water tank inspections and providing health education sessions. However, these interventions, along with inconsistent cash grants from the Township GAD, did little to address the broader needs of recovery. Physical and economic restoration was still largely left to the community.

A central finding across all roles is the significant difference in effectiveness between the relief and recovery phases. During the relief phase, CSOs and village youth demonstrated high levels of agility and horizontal speed. Yet as the disaster moved into reconstruction, the limitations of the current non-state model became visible. One villager explained:

“Most haven't reached their former status. There is no project for recovery... villagers are now building lofts for their belongings and desperately want embankments to prevent erosion.”

Community Leader 2 (personal communication, 2025, 14 December)

This illustrates that while CSOs can fill the technical limitations, cleaning ninety wells and providing three thousand latrine parts, they cannot fill the structural gap of building embankments or stabilizing agricultural markets. Their role in recovery remains restorative rather than transformative, leaving the community in a state of suspended vulnerability.

Perhaps the most lasting functional role of the 2024 response is the institutionalization of self-reliant preparedness. Because the formal warning system failed and state compensation was selective, some villages began forming permanent committees to coordinate local disaster response. By forming these local committees, the villages strengthened community capacity under indicator P7.1 and set up their own preparedness plans in line with indicator P9.2. Households adopted emergency bags and evacuated livestock on their own initiative rather than waiting for formal commands. As one account noted:

“Based on last years’ experience, people in 2025 evacuated livestock and themselves on their own initiative... if a future warning is announced, we will definitely arrange to evacuate using CSOs’ cars and motorcycles.”

Community Leader 1 (personal communication, 2025, 26 November)

The empirical data confirm that CSOs’ functional roles in Nay Pyi Taw directly address the immediate implementation gaps on the ground by replacing formal functions in search and rescue, early warning, and localized sanitation. Yet, a total reliance on this model creates severe resource fragility. With the inevitable decline of post-disaster charitable contributions, the ongoing responsibility for asset maintenance and localized capacity enhancement falls disproportionately upon village-level volunteers and monastic networks. Ultimately, this structural imbalance demonstrates that while CSOs have proven their agility in managing early recovery, the absence of an integrated, collaborative recovery project (P10.1) remains a primary obstacle to achieving true long-term community resilience.

5.1.4 Summary of Current Roles and Functions of CSOs in Flooding

The empirical findings across Section 5.1 demonstrate that CSOs in the Nay Pyi Taw 2024 flood response played multi-dimensional, essential roles that went far beyond serving as auxiliary assistants within a state-led operation. Instead, CSOs emerged as the primary functional actors of survival and practical governance on the ground, systematically stepping in to address severe implementation gaps across the acute response and early recovery phases of the flood management. These roles are reflected across indicators related to community engagement, preparedness, coordination, and recovery.

First, regarding information interrelationship for local risk communication, formal warning mechanisms encountered severe lead-time failures. CSOs successfully bypassed these centralized delays by utilizing decentralized digital platforms, mobile megaphones, and repurposed pre-existing civic phone networks. This horizontal mobilization successfully fulfilled local risk communication and public trust objectives evaluated under indicator P7.4. Through these channels, they transformed abstract alerts into trust-based, community-led evacuation actions that directly confronted local risk perception traps.

Second, in terms of frontline participation in emergency response and recovery measures, a critical 72-hour functional gap emerged where localized institutional capacity was limited by the scale of the flash floods. This operational gap exposed deficits in formal preparedness plans under indicator P9.2. During this urgent window, CSOs managed the physical and logistical demands of search-and-rescue. Despite acute technical shortages and a reliance on improvised equipment, they formed horizontal coalitions to prioritize vulnerable populations. They also repurposed local vehicles for mass evacuation and coordinated immediate shelter provision and food distribution across dozens of isolated village tracts.

Third, through the functions of social service restoration in the early recovery phase, CSOs transitioned from high-intensity rescue to targeted technical recovery, organizing operations to restore essential sanitation and clean water infrastructure.

Environmental and resource constraints confirm that this community-led model faces a profound recovery paradox. CSOs demonstrated exceptional horizontal agility during the acute relief phase. However, their long-term participation remained financially and institutionally fragile. Larger, well-connected networks successfully sustained early recovery support. In contrast, smaller, village-based groups experienced rapid resource exhaustion, forcing them to withdraw once immediate relief subsided. Ultimately, this gap shows that CSOs excel at providing immediate relief. However, they lack the formal authority and permanent funding to drive long-term recovery. As a result, their operations remain restorative rather than transformative. This structural imbalance indicates that grassroots networks cannot sustain recovery on their own. The absence of an integrated, collaborative recovery project under indicator P10.1 remains

the primary obstacle to long-term community resilience. Bridging this formal gap is vital in an increasingly unstable climate.

5.2 Multi-Stakeholder Cooperation and Governance of Typhoon Yagi 2024

Prior to examining the specific dynamics of multi-stakeholder governance, it is essential to outline the cooperative landscape that shaped the response to Typhoon Yagi. The 2024 flood required a level of cross-sectoral coordination and resource management that stretched both state and non-state entities. While formal guidelines envision a centralized, state-led disaster response, the ground realities in Lewu Township fostered a complex, multi-layered governance environment. In this space, different actors had to negotiate roles, resources, and communication channels simultaneously. This section analyzes how these diverse stakeholders interacted through relevant indicators, particularly those on multi-agency collaboration, operational coordination, and the activation of social capital (P1.2, P9.6, P7.1). It highlights where cooperation succeeded horizontally and where a vertical coordination deficit limited state–civil society collaboration.

5.2.1 Inclusive Cooperation among CSOs to Strengthen Recovery Efficiency

One notable feature of the 2024 flood response was the development of horizontal networks, where various CSOs of equal standing worked together collaboratively, independent of centralized leadership or direct government supervision. This approach reflects the practical application of the indicator on multi-agency collaboration (P1.2), as it enables rapid resource allocation and avoided the logistical bottlenecks typical of vertical, state-led hierarchies. The empirical evidence demonstrates that local groups achieved township-wide scale through peer-to-peer alliances that functioned as an informal early warning and coordination network.

The research found that the central command did not exist in a formal office but within messaging platforms. Messenger, Viber, and Telegram groups became digital command centres where real-time intelligence sharing surpassed the capabilities of formal administrative channels. Crucially, three out of the four organizations involved

in this study were active participants in these shared digital networks. As one participant explained how CSOs groups coordinated:

“We have communication networks established on platforms like Messenger, Viber, and Telegram. There is a group called the ‘Nay Pyi Taw Ambulance Group.’ ... We share information in this group.”

Organization Member 2 (personal communication, 2025, 27 December)

This digital infrastructure enabled the coalition to coordinate tasks in real time. By functioning as an informal, decentralized EOC, this multi-agency digital network mirrored the operational coordination goals outlined in indicator P9.6. When a village leader or resident contacted a CSO for assistance, the request was instantly shared across the network. The nearest team, regardless of organizational affiliation, could then respond, ensuring rapid and flexible rescue operations.

The coalition demonstrated adaptability in shifting its activities between localities. Teams initially focused on their own townships, such as Pyinmana or Lewe, but once the upstream crisis stabilized, manpower and equipment were shifted downstream to areas that were overwhelmed. One frontline respondent recalled:

“Teams based in Pyinmana town focused mainly on villages near Pyinmana... Since Pyinmana is upstream, once the water receded there, we had to request them to come and help us in Lewe because we were overwhelmed.”

Organization Member 1 (personal communication, 2025, 14 December)

By recognizing the disaster’s chronological flow, the peer-to-peer communication maximized limited equipment and ensured that rescue capacity grew stronger as the flood moved, rather than becoming exhausted in one location.

The network extended beyond the Nay Pyi Taw Union Territory, drawing on specialized associations from distant districts through informal peer-to-peer requests. These were not formal appeals through government channels but calls for assistance based on established social ties. As one participant noted:

“We can connect with other groups for help if needed... groups from Yangon and Mandalay often contacted us asking, ‘Brother, what is needed where? Do you need boats, manpower, or food?’ ... specialized associations from nearby districts arrived with boats.”

Organization Leader 4 (personal communication, 2025, 15 December)

The evidence confirms that this coalition solved the resource capacity problem by borrowing equipment and teams from unaffected or recovered areas. It represented a shift from charity to professional network management. The success of this model suggests that the most effective coordination in Myanmar’s current context is not top-down instruction from the state but side-to-side collaboration between trusted peer organizations. Although it is built on informal personal networks, this setup successfully fulfilled the coordination goals of indicator P1.2 and offers a community-led model for mobilizing surge capacity (P9.3).

5.2.2 Emergent Governmental Collaboration

The 2015 Rules describe a state-led response in which civil society should act as a supporting partner. However, the 2024 flood showed that the relationship between CSOs and the state was fragmented and often tense. This section highlights the challenges of vertical integration, a gap highlighted by the indicators (P1.2, P9.6). The findings point to a clear coordination gap, caused by bureaucratic rigidity, delays in mobilization, and disagreements over how aid should be prioritized and managed.

The research found a major disconnect between the military’s presence and their ability to act flexibly. Even though large boats were available nearby, the state’s centralized command system followed preassigned regional orders rather than responding to immediate local needs. One religious leader explained,

“During the rescue, the military arrived with five large boats, but they were assigned to the Bago Region [which was also flooding]. I begged them to help my villagers once, but they said they couldn’t... They never showed up that night. It wasn’t until 7:00 AM the following morning, a full night and day after the flood started, that the Social Welfare department arrived.”

Community Leader 2 (personal communication, 2025, 14 December)

This 24-hour delay forced CSOs to operate in a functional gap during the most dangerous hours. While the state was stuck in a resource allocation dilemma, local CSOs rescued victims from trees using improvised equipment. This shows that governance failed at the local level, as the top-down system could not adapt to multiple crises occurring simultaneously.

Another source of friction appeared during recovery. The Township GAD wanted to keep administrative control by ordering CSOs to distribute aid broadly, while CSOs insisted on a targeted, needs-based approach. One respondent explained,

“They [the Township GAD] want us to go to both the villages that are submerged and those that are not. They want us to do as they order, but we want to focus on those in real trouble... We only go after investigating thoroughly to prioritize those in real distress.”

Organization Member 2 (personal communication, 2025, 27 December)

This shows that CSOs developed their own independent systems to validate data. By conducting investigations, they moved beyond the role of mere volunteers and became humanitarian gatekeepers. They resisted state pressure to spread resources thin for administrative reasons and instead protected the interests of victims and donors. This disagreement showed a weakness in the local multi-agency collaboration framework under indicator P1.2.

The research also found rare cases of cooperation between CSOs, the military, and local villagers, but these were limited to physical labor in public spaces rather than any shared command structure. One community leader noted,

“There was no collaboration between government departments and Local volunteer CSOs, except for a combined effort between one CSO, the military, and villagers to clear mud from the school... There were one or two instances where the military helped transport donors.”

Community Leader 3 (personal communication, 2025, 14 December)

This shows that governance was applied only in neutral spaces such as schools or monasteries. The military provided the heavy manpower that CSOs lacked, but this

was only a temporary alliance. Once the cleanup was finished, each group resumed its own activities, with no joint planning for recovery or future mitigation. Because this cooperation was reactive, it underscores a missing framework for continuous learning and joint preparedness between professionals and the public, under indicator P9.7.

Overall, the evidence shows that coordination between CSOs and the state was reactive and isolated rather than collaborative. The state saw CSOs as instruments for physical tasks, while CSOs saw themselves as independent actors serving the community directly. This dynamic demonstrates that the current disaster management framework experiences structural weaknesses on the ground. Instead of following rigid instructions from government officials, CSOs used their own field assessments to deliver aid directly to the hardest-hit communities. As a result, while tactical successes occurred in clearing public buildings, the broader recovery remained uncoordinated. This outcome revealed a broken disaster management cycle, where emergency response failed to connect with long-term reconstruction because the state and CSOs continued to operate in isolation once immediate physical tasks were completed. This outcome revealed a gap measured against indicators from the Ten Essentials (P1.2, P9.6, P10.1).

5.2.3 Financial Resource Mobilization

The 2024 flood required a level of resource mobilization far beyond the budgets of individual local CSOs. To handle this large amount of aid, organizations developed a form of horizontal accountability. These emerging practices were assessed using indicators for multi-agency collaboration and transparent resource management (P1.2, P1.3). Since there was no formal state auditing, CSOs used digital platforms to create transparent, real-time records of their recovery activities.

The research shows that a new reporting culture emerged among leading CSOs in Nay Pyi Taw. Instead of focusing only on internal accounting, organizations prioritized public post-action reports to maintain donor trust. These digital reports included the amounts received, the names of donors, the dates of each transaction, and detailed lists of activities carried out in specific villages. By making this information public, CSOs created a digital trust system that provided proof of their work to both external stakeholders and local contributors. This proactive use of digital transparency to build credibility aligned closely with the principles of public trust evaluated in indicator P7.4 (Citizen Engagement and Communications). This approach represents a

significant change in how volunteer groups manage resources, as digital transparency has allowed them to sustain recovery efforts even as donor initial enthusiasm began to fade.

Another important finding was the gap between targeted equity and communal equality. CSOs and community leaders acted as data intermediaries, using household records to guide resource allocation. This often led to misunderstandings within villages about how aid should be divided. One community leader explained,

“Depending on the quantity of received items, we prioritized distributing them to the destitute. Among us, some villagers had misunderstandings as they wanted to receive an equal share... We call the villagers with the records and arrange for them to donate directly if that is the donor's wish.”

Community Leader 4 (personal communication, 2025, 19 December)

This shows that CSOs engaged in a high level of operational planning. By prioritizing the most affected households over equal distribution, they implemented a targeted equity approach to ensure that recovery funds were not diluted. However, this strategy required careful social negotiation. The use of household records enabled CSOs to protect the interests of the most vulnerable while respecting donor wishes to ensure their contributions reached those most severely affected. Using data to prioritize the most affected households showed a strong commitment to protecting vulnerable groups in line with indicator P7.2.

The evidence confirms that CSOs became the main financial engine of the recovery phase. Their ability to mobilize and manage large amounts of funds through decentralized digital networks shows that resource capacity is no longer dependent on formal state budgets. This highlights an important evolution, and CSOs are now performing auditing and allocation roles that were traditionally the responsibility of government departments. Their use of public posts and field-verified records ensured that recovery aid reached those in real distress, filling the gap left by a state system that recorded losses but lacked the transparency or funds to respond effectively.

5.2.4 Social Capital and Religious-CSO Alliances

In the recovery phase, coordination shifted from the physical labour of rescue to the social labour of resource management. The findings suggest that CSOs did not rely

solely on disaster-specific groups. Instead, they leveraged cross-sectoral alliances with religious leaders and pre-existing medical networks, which aligned with indicators for multi-agency collaboration and integration of resilience with broader community functions (P1.2, P1.3). These alliances allowed them to access forms of social capital that formal government institutions could not mobilize, effectively transforming everyday community ties into recovery infrastructure.

Religious leaders, particularly monks, became central figures in this process. In a context where villagers expressed mistrust toward administrative lists due to perceived unfairness, the monastery emerged as neutral ground for equitable distribution. One monk explained,

“Most groups contacted me in advance by phone. I received about 150 calls a day, and the village clerk even referred donors to me... I collaborated with CSOs and individual donors to ensure fair distribution... For those whose houses were swept away, I collected individual donations. I also added 500,000 Kyats from my own funds for each of these families.”

Community Leader 2 (personal communication, 2025, 14 December)

Religious authority thus functioned as a human intermediary, connecting external donors with local needs and ensuring that recovery aid was distributed based on monastic verification rather than political or administrative affiliation.

A unique recovery strategy uncovered in the research involves the functional crossover of medical assistance into long-term community support. This phenomenon was not isolated; three out of the four studied organizations utilized personal phone contact networks. It was originally established for blood donation or ambulance services as their primary communication infrastructure. One CSO coordinator utilized an established blood donor network as a pre-existing communication network.

“Because I have to link blood donors from the villages, our phones are already connected to the entire network... they call this phone if they need help, whether it’s a natural disaster or anything else.”

Organization Member 1 (personal communication, 2025, 14 December)

By using these large contact lists, which in one case included about 800 people across nearly every village, the CSOs maintained an informal but effective communication network. In the recovery context, this enabled the rapid identification of unmet needs, such as specific households needing well cleaning activities or experiencing health issues. Because trust had already been established through their participation in blood donation, the network could be repurposed as a resilient communication system. Flood-affected members used this network to request assistance and to confirm community needs, enabling CSOs to sustain recovery efforts even as external donor enthusiasm began to fade. Repurposing a medical record into a disaster communication tool offers an example of integrating resilience across existing community functions, as evaluated by indicator P1.3.

5.2.5 Summary of Multi-Stakeholder Cooperation and Governance of Typhoon Yagi 2024

The evidence confirms that the governance of the 2024 flood response and subsequent recovery was defined by decentralized agility rather than centralized command. In the absence of an integrated formal network, a diverse set of stakeholders, including CSOs, religious leaders, and local communities, constructed an autonomous, multi-layered framework to fill critical operational gaps. This interaction was not a temporary emergency measure. Instead, it acted as a sustained strategy that transitioned into the recovery phase, even as vertical collaboration with state authorities remained fragmented.

Digital platforms allowed resources to be mobilized dynamically across different sectors. At the same time, alliances with monastic and medical networks created an informal communication system rooted in social trust. Ultimately, these multi-stakeholder dynamics demonstrate that effective disaster governance relies heavily on local social capital as a primary recovery asset. This finding aligned with the emphasis of indicators (P1.2, P7.1) on horizontal, community-based collaboration. However, the limited integration with formal government structures persisted throughout the response and recovery process. The absence of unified, city-wide strategic planning also revealed that several key indicators, particularly those calling for systematic, multi-agency coordination and integration (P1.2, P1.3), were not fully achieved.

This synthesis shows that the success of the response and the strength of the recovery depended directly on the informal networks. The state's top-down model was hindered by bureaucratic rigidity and delays, while the CSOs' horizontal, peer-to-peer approach emerged as the only practical mechanism for managing both urgent rescues and complex, long-term reconstruction. By repurposing everyday blood donation directories and monastic networks, local actors demonstrated a profound capacity for everyday resilience. They successfully converted social ties into active recovery infrastructure. Furthermore, by resisting administrative pressure to dilute resources and choosing instead to prioritize households in extreme distress, CSOs successfully operationalized a targeted equity approach on the ground. These strategies converted grass-roots social capital into highly efficient recovery capacity. This process clearly demonstrates that effective multi-stakeholder cooperation and disaster governance during Typhoon Yagi 2024 relied far more on localized social assets than on formal government functions. It illustrates an urgent need to move from parallel operations toward a unified, strategic collaboration framework.

5.3 Challenges and Opportunities in Flood Recovery

The transition from immediate crisis response to long-term reconstruction following Typhoon Yagi in 2024 revealed fundamental structural challenges in disaster governance in Lewe Township. While the emergency phase depended on rapid social mobilization, the recovery phase required sustained institutional capacity, significant economic resources, and coordinated strategic planning. Empirical evidence shows that this shift was not seamless; instead, it exposed a persistent tension between the agility of decentralized civic action and the inertia of centralized bureaucratic systems. The findings highlighted both the strengths and limitations reflected in the indicators on integrated planning and preparedness (P1.1, P1.2, P9.2).

5.3.1 The Technical and Infrastructure Deficit in Recovery

The transition from emergency response to long-term recovery revealed a severe material resource deficit. While local social capital and volunteer mobilization proved adequate for immediate rescue, restoring community livelihoods required heavy

machinery and industrial tools. Neither local CSOs nor state entities possessed these assets. This deficit created a severe limitation, forcing recovery operations to depend on slow manual labor rather than professional engineering. This situation exposes gaps in the integration of risk-sensitive infrastructure investments (P 1.3). One organization leader explained:

“We knew the water was rising rapidly, but we couldn’t rescue in time. Very powerful boats or helicopters were needed, and in some places lives were lost because help never arrived.”

Organization Leader 4 (personal communication, 2025, 15 December)

This equipment deficit directly impacted survival rates across the township. CSOs were forced to make difficult decisions because they lacked professional tools. Another respondent recalled:

“I feel bad that I couldn’t fulfill all the requests for emergency help. We could only fulfill about 65% of the requests.”

Organization Member 1 (personal communication, 2025, 14 December)

These accounts highlight how the absence of advanced equipment not only slowed recovery but also limited the reach of rescue efforts.

This lack of technical capacity was mirrored in the condition of rural infrastructure. The research shows that rural road networks and embankments were not prepared for severe flood scenarios, resulting in a collapse of physical connectivity. One village leader explained that the destruction was so complete that reaching the city became impossible, leaving the community isolated during its most vulnerable period. With formal state infrastructure failing, villagers relied on autonomous coping mechanisms. This is illustrated by one leader’s account:

“Roads were destroyed, making it difficult to go to the city. We had to open a donation post by the roadside to collect small donations of 500 or 1,000 Kyats from villagers and use them to repair the roads.”

Community Leader 4 (personal communication, 2025, 19 December)

Similar gaps emerged in WASH recovery, where CSOs attempted to fill critical gaps left by missing state support. In the absence of a functional state-led recovery, CSOs engaged in efforts to address WASH infrastructure needs but lacked the resources to do so effectively. One CSO leader described an intensive, ad hoc plan in which they cleaned dozens of wells, peaking at 33 in one day, using only two compressors and ten volunteers. This demonstrates community initiative but also highlights persistent gaps in achieving integrated, large-scale recovery (P10.1) and in coordinating risk-informed infrastructure planning in local master plans (P1.1).

Beyond immediate infrastructure, livelihood restoration remained the most critical and unresolved challenge. Finally, the research points to a major deficit in post-disaster reconstruction in livelihood recovery. CSOs managed small tasks like distributing toilet bowls and cleaning wells, but there was no state-led project for economic recovery. One community leader reported that government promises for tilling machinery and agricultural repayments never arrived, and compensation was highly insufficient. In one village, only 8 of 380 households received livestock aid, creating a sense of unfairness. As another respondent explained:

“No organization, including the State, can provide a precise plan or truly effective support for recovery... the Township GAD doesn’t have rescue equipment. They are unable to lend necessary equipment... After the flood, there was no project for recovery.”

Organization Leader 3 (personal communication, 2025, 25 November)

Without business start-up support or cultivation subsidies, the transition from basic survival to true community resilience was prevented. This persistent gap highlights how post-disaster recovery planning and integration standards (P10.1) were not achieved. Ultimately, this operational reality suggests that without a professionalized state roadmap, grassroots efforts remain fragile. CSOs are left maintaining basic equipment for the next emergency without broader institutional backing or resource integration.

5.3.2 The Coordination Challenges in Recovery

The research shows that although agile, CSO networks remained structurally fragmented, and the absence of a coordinating center reduced the overall effectiveness of recovery efforts. A key finding is the complete absence of a multi-agency EOC, indicating a shortfall in meeting the target for coordinated, multi-agency disaster management (P1.2, P9.2, and P9.6). While modern policies emphasize shared responsibility, the 2024 response revealed an institutional coordination deficit between formal and informal actors. One leader explained how this lack of a central hub forced peer groups to operate in isolation:

“There was no central group. Each group provides help as they see fit.”

Organization Leader 3 (personal communication, 2025, 25 November)

This independence enabled rapid local action, but it limited the ability to scale resources across wider river areas where individual CSO assets were insufficient.

In addition to the lack of a centralized coordination mechanism, the research shows that delays and fragmented information flows slowed down coordination during the flood. Respondents emphasized the importance of modern communication platforms for improving disaster coordination. One organization leader explained,

“The Township Social Welfare department should distribute information via Viber to existing organizations when a disaster strikes.”

Organization Leader 3 (personal communication, 2025, 25 November)

This account highlights how widely used digital tools could help ensure that CSOs receive timely updates and alerts, making coordination faster and more inclusive during emergencies. This lack of official digital alerts shows a clear gap in the state's risk communication under indicator P7.4. In practice, CSOs relied on their existing blood donor network, where CSO phone numbers were already known to hundreds of donors and patients across the township. When the flood occurred, those same contacts were used to request rescue and recovery support or to mobilize donations. This informal communication network enabled real-time coordination. However, because it

lacked integration with state administrative channels, a disconnect remained between formal resource holders and frontline volunteers.

Beyond communication barriers, the research points to strained relations between the Township GAD and CSOs, which undermined operational effectiveness. As the principal administrative body, the Township GAD and the Department of Social Welfare lacked rescue equipment, limiting their ability to support volunteer teams. One respondent noted that although a network was nominally established to link local volunteers, in practice coordination was minimal, leaving teams to act independently and prioritize certain villages while others remained stranded. At the same time, participants observed that agencies such as the fire department possessed adequate resources, underscoring uneven capacity across institutions. This uneven distribution of equipment shows a breakdown in multi-agency resource sharing under indicators P1.2 and P9.3. These dynamics reveal that coordination remains weak, as relationships are still defined by ad hoc requests rather than integrated planning.

5.3.3 Institutional Weakness and Recovery Gaps

This section examines the final phase of the disaster cycle, long-term recovery. Under post-disaster reconstruction, the findings reveal a clear recovery deficit. Weak coordination and poor information flow, discussed in Sections 5.3.1 and 5.3.2, directly undermined recovery capacity. The absence of a professionalized state roadmap left community resilience fragile and dependent on volunteer resources, showing ongoing gaps in meeting the indicator on integrated recovery planning (P10.1).

A major finding is the gap between official compensation policies and the reality of rural loss. Respondents described a compensation gap that made recovery largely symbolic rather than transformative.

“Government livestock compensation was highly insufficient; only about 8 out of 380 households received anything... A year later, many have still not recovered.”

Community Leader 3 (personal communication, 2025, 14 December)

While the Township GAD facilitated small-scale interventions, such as limited cash transfers for home reconstruction and the distribution of minor livestock, the data suggest these efforts were statistically insignificant relative to the actual need. Even in villages where aid was delivered, the support was highly selective, leaving critical

sectors like crop farming and pig husbandry entirely unaddressed. This fragmented approach meant that the majority of flood-affected families received no meaningful assistance to restore their livelihoods. This uneven distribution highlights both the limited scale of assistance and the absence of a coordinated recovery plan.

This evidence also shows that while the Township GAD was efficient at recording losses, it failed to translate those records into tangible aid. As a result, the backbone of the local economy, livestock and agriculture, remained broken, leaving families in a state of stagnant recovery. Across the study, there was a strong consensus among respondents regarding the total lack of recovery projects or government support for agricultural losses. Respondents also identified an absence of interventions in the agricultural sector. Despite initial promises for recovery assistance, the technical tools needed to restart cultivation never arrived. Promises of tilling machinery and cultivation subsidies were left unfulfilled, even months after the flood. An organization leader described:

“After the flood, there was no project for recovery... There was no assistance for crop damage.”

Organization Leader 3 (personal communication, 2025, 25 November)

Without seeds, fertilizers, or cultivation subsidies, community capacity has been reduced to survival strategies such as high-interest debt or subsistence farming. This shows that while CSOs are effective at small-scale tasks, such as cleaning wells or distributing toilet sets. They cannot replace the state’s role in large-scale economic reconstruction.

The absence of institutional follow-up further weakened recovery. Because the state failed to establish a post-disaster recovery project, CSOs were forced into a reactive and short-term maintenance cycle. All respondents noted the absence of post-flood discussions, joint drills, or collaborative reflections. This falls short of indicator P9.7 on preparedness exercises and continuous learning. Without a sustainability roadmap, organizations are left simply maintaining equipment in anticipation of the next emergency. This gap reflects a broken disaster management cycle, where the response phase fails to connect with long-term reconstruction, leaving communities permanently vulnerable. More broadly, there was a lack of a comprehensive and

implemented DRR strategy at the township level. This demonstrates that indicator P1.1 was not fulfilled in practice.

5.3.4 Opportunities for Strengthening Community Resilience

While the 2024 flood exposed significant limitations, it also revealed opportunities to strengthen community resilience. By formalizing the functional role already demonstrated by CSOs, the disaster management framework shifted from a reactive, state-centric model to a more proactive and collaborative partnership. This approach aligned more closely with integrated planning and multi-agency cooperation as reflected in the indicators (P1.2, P1.3).

The success of the informal 800-person digital network and the peer-led use of social media for early warning shows clear potential for institutionalization. Township Social Welfare and the GAD could bridge the current communication gap by officially recognizing and integrating these Viber-based networks. Turning these ad hoc groups into a multi-agency coordination platform would ensure that professional data on water levels and dam releases reach CSOs and village leaders in real time.

Second, the peer-to-peer boat training described earlier demonstrates that CSOs already possess practical expertise. This creates an opportunity to redesign drills and training through a partnership model. Instead of top-down classroom sessions, the state could provide funding and official search-and-rescue certification to CSOs. This approach strengthened immediate grassroots capacity and secured essential rescue skills among active CSO members, aligning with the indicator for practical preparedness exercises (P 9.7). However, this effort functioned as a localized, one-time training rather than a systematic, it did not achieve a township-wide scale or ensure permanent access to rescuers across every village tract.

Finally, the trust deficit caused by insufficient government aid highlights the need to implement a targeted equity approach by involving CSOs directly in resource distribution. Affected households and external donors explicitly prefer engaging with CSOs to ensure transparency and fairness. By partnering with CSOs and religious leaders to verify loss records, the state could overcome its current verification gaps. This collaborative arrangement would ensure that recovery aid is distributed based on actual household vulnerabilities rather than political or administrative affiliation.

5.3.5 Summary CSO's Challenges and Opportunities

The analysis of the 2024 flood recovery in Nay Pyi Taw shows a situation in which local organizations operated with high flexibility but within a limited institutional environment. The challenges identified during the recovery were not only physical but also structural, reflecting the gap between community-led action and state administration.

The assessment of these findings shows that the primary challenge was a technical and infrastructure limitation. Despite these barriers, the recovery efforts also revealed important opportunities. The success of informal online communication groups shows that communities are ready for risk communication under indicator 7.4 and a more integrated early warning and coordination system. CSOs coordinated boat training demonstrated a practical model for community-based capacity building that is more effective than classroom-based sessions. In addition, the high level of community trust in CSOs provides an opportunity to use these organizations as intermediaries for fair and transparent aid distribution.

The 2024 response shows that the current system relies primarily on volunteers' endurance. However, the tools to build a stronger, more resilient governance model already exist. Moving from short-term coping strategies to a proactive recovery plan will require the formal integration of community-led strengths into the national disaster management framework.

5.4 Summary

The findings of this chapter confirm that CSOs have become the essential frontline of disaster governance in Myanmar. Their roles during the 2024 floods in Nay Pyi Taw went far beyond auxiliary support. They were central to rescue operations and recovery efforts, while also ensuring that disaster warnings were understood at the village level. In the absence of timely state intervention, CSOs and local volunteer networks filled the operational gaps, mobilizing social capital, improvised equipment, and digital platforms to sustain survival and recovery. These actions demonstrate

alignment with indicators on grassroots engagement and community-based collaboration (P1.2, P7.1).

The operational dynamics of this response reveal that horizontal coordination enabled faster action by bypassing vertical administrative bottlenecks. While the formal state structure struggled with bureaucratic rigidity, communication delays, and top-down resource allocation, CSOs relied on decentralized and flexible communication channels. By utilizing digital platforms, mobile megaphones, and pre-existing civic blood-donor directories, they developed an informal communication system that supported rapid information sharing and resource mobilization. This network allowed real-time information and physical resources to be distributed across affected areas in response to changing flood conditions.

At the same time, the evidence highlights the limits of this community-led system. Smaller, village-based organizations faced rapid resource exhaustion, technical shortages, and weak institutional backing. These constraints restricted their ability to sustain recovery operations once immediate relief funds subsided. Vertical coordination between civil society and state authorities remained fragmented, and the absence of high-capacity technical assets directly undermined search-and-rescue coverage. These persistent gaps indicate that several indicators, particularly those related to systematic preparedness, multi-agency coordination, and integrated recovery planning, were not fully met.

In summary, the chapter shows that Myanmar's disaster response and recovery are characterized by a contrast between community-level adaptability and institutional limitations. CSOs demonstrate strong operational agility and deep-rooted public trust; however, their roles remain primarily restorative rather than transformative. While they are effective in addressing immediate localized damage, their capacity to support long-term economic reconstruction is constrained by limited authority and insufficient institutional and financial support.

Overall, the findings indicate that social capital played a central role in sustaining recovery efforts, highlighting the importance of local networks in disaster governance. However, the effectiveness of multi-stakeholder cooperation remains limited by fragmented coordination between formal institutions and community actors.

The findings further suggest that strengthening disaster governance requires improved integration between these actors to better support long-term recovery planning and resilience building. This structural shift is required to fully realize integrated recovery planning as outlined in indicator P10.1.



CHAPTER 6

CONCLUSION, DISCUSSION, AND RECOMMENDATION

This chapter examines the findings of the 2024 flood response in Nay Pyi Taw and considers their broader implications for disaster governance in Myanmar. The evidence demonstrates that CSOs played a far more central role than the supportive position assigned to them in official frameworks. Their activities reveal both the strengths of community-led action and the limitations of current institutional arrangements.

The discussion is organized around five key themes: the emergence of local governance capacity, the role of informal digital communication networks, the training and practice gap in CBDM, technical limitations and resource governance, and the challenges of recovery under the principle of build back better. Together, these themes highlight the misalignment between formal disaster management policies and the realities of field practice.

By examining these dimensions, the chapter shows how CSOs have become indispensable actors in disaster response and recovery, while also exposing the risks of relying on volunteers without adequate institutional support. The analysis points to the need for more collaborative governance, in which community capacities are formally integrated into national disaster management systems.

Finally, this discussion provides the foundation for the recommendations that follow. These recommendations will focus on strengthening coordination between CSOs and state institutions, improving training and resource governance, and ensuring that recovery planning moves beyond symbolic compensation toward sustainable resilience.

6.1 Synthesis of CSO Roles and Resilience Indicators

The research into the 2024 flood response and recovery in Nay Pyi Taw shows that although the National Disaster Management Policy officially recognizes CSOs as

stakeholders, their actual role went far beyond the supportive position described in formal frameworks. Rooted in community self-help, CSOs became the main actors in critical areas such as search and rescue, providing support for road repair, and the rehabilitation of community water sources. This evidence demonstrates that CSOs were not only assisting but were often the main providers of basic services in rural areas where government response was limited.

The study also shows that CSOs' effectiveness was supported by strong horizontal networking and high levels of community trust. By using digital communication platforms such as Viber, CSOs created decentralized systems for early warning and mobilization that worked independently of formal state structures. These networks allowed rapid resource mobilization and coordination between volunteer teams. However, coordination with government departments was weak. The absence of centralized information centres led to fragmented aid distribution and a disconnect between local action and state administration.

Despite the flexibility of these community networks, the response was restricted by technical limitations. In the absence of specialized equipment and professional training, CSOs managed to respond to slightly more than half of the emergency rescue requests. This problem was exacerbated by the gap between formal training and practical needs, as official preparation was mostly theoretical. Volunteers had to rely on informal, hands-on training to ensure safety during operations. These findings suggest that volunteer effort alone is insufficient to manage severe disaster situations without institutional support, as emphasized in the Sendai Framework.

Finally, the research identifies weaknesses in the recovery phase. Livestock compensation reached only a very limited number of affected households, and agricultural support was not delivered. This shows that the transition from immediate relief to long-term reconstruction has been slow. Importantly, the withdrawal of many small associations was primarily due to resource exhaustion and limited capacity. These groups often saw themselves as temporary relief actors without the funding or institutional support needed for sustained recovery. This highlights the fragility of community-led recovery when external resources diminish.

At the same time, the study highlights opportunities: CSOs have earned strong community trust and have shown the ability to learn and share skills. These strengths

provide a foundation for building a more collaborative governance model. The findings emphasize that future disaster resilience in Myanmar depends on formalizing these community-led capacities and closing the gap between national policy and field practice.

Based on the findings described above, Table 6.1 brings together the 11 indicators used in this study. It shows the main strengths and weaknesses revealed during the 2024 flood in Nay Pyi Taw and links each indicator to the relevant discussion section that follows.



Table 6.1 Key indicators and findings from the 2024 flood in Nay Pyi Taw

Indicator	Key Findings	Strengths	Gaps / Challenges	Implications / Recommendation Link
P 1.1 DRR in city master plan	City plans symbolic, not operational	Acknowledgment in policy, absent in practice	Disconnect between state planning and CSO practice	Formalize CSO role in planning; localized flood mapping
P 1.2 Multi-agency mechanism	Coordination horizontal, CSO-driven	Rapid peer-to-peer info sharing	State lacked hardware, weak integration	Build hybrid coordination networks; resource authority for CSOs
P 1.3 Integration of resilience in city functions	CSOs managed sanitation/road repair ad-hoc	Strength in sanitation and clean water recovery	Bureaucratic friction, lack of routine integration	Institutionalize CSO technical role in recovery
P 7.1 Grassroots participation	Reliance on monks/youth	High community trust	Rumours of mismanagement by officials	Strengthen community-state collaboration; transparency in aid
P 7.2 Training for vulnerable groups	CSOs prioritized elderly/sick	Targeted evacuations	Difficulty reaching remote villages	Expand inclusive preparedness; integrate vulnerability mapping

Table 6.1 (continued)

Indicator	Key Findings	Strengths	Gaps / Challenges	Implications / Recommendation Link
P 7.4 Citizen engagement & communication	Informal digital tools used (Facebook, Viber)	Transparency built donor trust	Incomplete transmission of warnings	Link CSO networks to official EOCs; improve risk education
P 9.2 Preparedness/response plan	No formal plans, ad-hoc response	Adaptive leadership	Lack of drills, proactive planning	Develop village-level flood plans; CSO-state joint drills
P 9.3 Staffing capacity	CSOs provided manpower, lacked equipment	Rapid youth mobilization	Insufficient state evacuation resources	Equipment-sharing model; invest in technical training
P 9.6 Emergency Operations Centre	No central EOC, CSOs improvised	Strong inter-CSO bonds	Institutional barriers; lack of state integration	Establish decentralized EOCs with CSO participation
P 9.7 Disaster drills	State training theoretical, no drills	Peer-to-peer training post-flood	Safety risks, lack of institutional memory	Shift to practical SAR drills; embed CSOs in CBDM
P 10.1 Recovery & Build Back Better	Recovery decentralized, limited long-term funding for recovery	Effective WASH recovery	No agricultural support, weak sustainability	Formal CSO role in recovery verification; ensure BBB delivery

Overall, the indicators confirm that while CSOs were indispensable in immediate relief and early recovery, their long-term effectiveness depends on stronger institutional integration, sustained resources, and closer alignment with national disaster governance frameworks.

6.2 Theoretical Discussion

6.2.1 The Emergence of Local Governance Capacity

The 2024 Nay Pyi Taw flood response and recovery revealed that CSOs emerged as the principal actors in disaster management, especially response and recovery. They filled critical gaps left by the limited and delayed capacity of formal government institutions. Despite the frameworks of the Myanmar Disaster Management Law (2013) and Standing Order on Disaster Management, government committees were positioned as the main responders. However, the unprecedented scale and rapid onset of the disaster quickly overwhelmed the formal response system. This mirrors what Lassa (2018) observed in other Southeast Asian contexts, where rapid-onset disasters overwhelm the formal response system, leaving civil society to assume frontline roles.

As demonstrated in the findings, there was a significant period when formal state intervention was largely absent. During this critical period, communities relied almost entirely on the adaptive strategies and social capital of CSOs and local volunteers. Village youth improvised flotation devices from water bottles, and CSO networks rapidly mobilized rescue boats and coordinated logistics, often far ahead of any state-led action. These examples support the concept of everyday resilience described by Berkes and Ross (2013), where local actors leverage informal resources and ingenuity to address gaps in official disaster planning.

A notable example of adaptive local governance during the flood was the transformation of the pre-existing blood donor network into an emergency communication and coordination tool. This phone network, originally intended for medical emergencies, enabled CSO members across nearly every village to rapidly share flood alerts and organize assistance. The speed and effectiveness of this system

were rooted in the trust and familiarity already established within the community. As a result, the network evolved into an informal early warning system. Community members relied on this network not only for blood donations but also for evacuation support and rescue coordination during and after the flooding. This finding illustrates how embedded, trusted social networks become essential lifelines in disaster response, filling gaps left by slower, centralized systems and reinforcing arguments in the literature about the value of local knowledge and social capital in crisis management (Berkes & Ross, 2013; Tierney, 2012).

In parallel, Viber networks and other digital platforms played a pivotal role in facilitating peer-to-peer coordination and resource mobilization among CSOs. Messenger, Viber, and Telegram groups effectively served as decentralized command centers, allowing information about rising water levels, urgent rescue needs, and available resources to be shared instantly across organizations and villages. These digital groups enabled real-time intelligence sharing and allowed the nearest available team to respond quickly, regardless of organizational affiliation. This system fostered mutual aid, with CSOs from other districts contributing boats, manpower, and supplies as the flood's impact moved downstream. This experience demonstrates how digital communication networks can strengthen local disaster governance by promoting agility, collaboration, and rapid response among community actors.

The operational reality of the 2024 response underscores a core principle of adaptive governance: in rapid-onset disasters, horizontal speed can bypass vertical rigidity. While the formal state architecture under the 2013 Law relied on a rigid command-and-control hierarchy, with information moving upward and instructions flowing downward through administrative tiers, the CSO response operated laterally. This divergence highlights the structural gap between centralized governance and community-driven practice. By repurposing everyday blood-donor directories and mobilizing shared Viber and Telegram channels, non-state actors created an organic, multi-layered shadow communication system.

This network did not wait for vertical authorization; instead, it optimized horizontal communication to match the chronological and geographic flow of the hazard itself. When upstream townships stabilized, resources and warnings were dynamically pivoted downstream via peer-to-peer coordination. This systemic agility

allowed frontline actors to outpace the bureaucratic inertia and resource allocation dilemmas plaguing formal institutions. Consequently, the Nay Pyi Taw case demonstrates that adaptive governance is not merely an auxiliary cushion for state capacity, but a structural necessity that circumvents vertical systemic friction to preserve immediate human safety.

Overall, this development supports the view in recent disaster governance scholarship that resilience is best achieved through collaboration between multiple actors (Lam & Kuipers, 2019; Tierney, 2012). However, in Nay Pyi Taw, the collaboration was mostly one-sided, with CSOs acting as the main providers of basic services. This further supports arguments in the literature that CSOs are vital for bridging capacity gaps when centralized governments cannot respond effectively (Izumi & Shaw, 2014; Lassa, 2018). In the Nay Pyi Taw case, CSOs not only filled these gaps but also established a reliable and efficient system of local governance.

Despite the central role played by CSOs in practice, national policy has not yet fully adapted to this reality. The MAPDRR (2017) recognizes CSOs as important stakeholders in disaster risk reduction, but it does not give them the official mandate or resources needed for the scale of work they perform. This results in a disconnect between the centralized command-and-control model in official policy and the more decentralized governance observed in practice. Essential services were provided by CSOs, supported largely by community donations and limited administrative resources.

This situation suggests that disaster resilience in Myanmar is increasingly shaped by bottom-up approaches. It is consistent with the Sendai Framework's call for inclusive governance, but it also shows a gap between the Disaster Management Law and local practice. When CSOs and communities are the ones restoring water and transportation infrastructure, they are applying adaptive governance (Lam & Kuipers, 2019).

Overall, the 2024 response and recovery show that CSOs were the main actors in local disaster recovery. However, this approach has significant limitations, since it largely depends on community donations and functions with minimal administrative support. For local governance capacity to be sustainable and resilient, it is not enough for national policy to simply recognize CSOs in principle. Instead, there must be a stronger emphasis on implementing existing frameworks, ensuring that CSOs receive

the institutional support, resources, and operational space needed to fulfill their roles. Only through effective policy implementation and investment in community-based networks can local governance be strengthened for future disaster management.

6.2.2 Adaptive Learning and Technical Capacity Building

The 2024 Nay Pyi Taw flood response exposed significant shortcomings in Myanmar's CBDM system, particularly in adaptive learning and technical capacity. Although policy frameworks such as the MAPDRR and the Myanmar Disaster Management Law formally call for regular training, drills, and public participation, these measures were inadequately implemented in practice. Most state-led training remained highly theoretical and centrally delivered, failing to equip community actors with skills tailored to their specific local needs.

Consequently, CSOs and community volunteers had to become self-reliant, developing practical skills through peer-to-peer learning and informal exchanges. Notably, this hands-on training focusing on critical skills like boat handling and search-and-rescue techniques was organized only as a one-time initiative after the flood. This adaptive approach demonstrates the community's ability to build human capital at the grassroots level, which Cutter et al. (2008) identify as a crucial component of resilience. Although this session successfully allowed volunteers to practice these vital field skills, it also exposed a deeper structural limitation.

The lack of regular, practical drills at the community level further underscored the disconnect between policy and reality. Both the MAPDRR and the standing order emphasize hands-on capacity building and genuine public engagement. In practice, however, critical field activities, such as disaster simulations, community drills, and participatory planning meetings, were entirely omitted. As a result, communities were often unprepared to manage real emergencies safely and effectively.

These findings reinforce reflects in the literature that, while CBDM can foster community ownership and innovation, it must not become an excuse for the state to abdicate responsibility for technical capacity building (Izumi & Shaw, 2014; Wagle, 2006). Without sufficient organizational support and resources from the state, community efforts may be unsustainable and could put lives at risk.

To address these issues, and to fulfill the objectives set by the Sendai Framework's Priority 4 on enhancing disaster preparedness, Myanmar's training model

must shift away from centralized, theoretical instruction. Policy should instead empower CSOs to lead practical, field-based training that is responsive to local risks and realities. By embedding adaptive learning and technical capacity building at the community level, Myanmar can strengthen both immediate disaster response and the professionalization of CBDM as a central pillar of national disaster governance.

6.2.3 Technical Limitations and Resource Governance

The transition from emergency response to long-term recovery in Nay Pyi Taw revealed a critical engagement gap that undermines the sustainability of community resilience. While disaster management strategies often assume a smooth shift from saving lives to rebuilding livelihoods, findings show that civil society participation dropped sharply once the immediate crisis passed. Many small associations in Nay Pyi Taw concentrated only on immediate relief. After the search-and-rescue phase, these groups quickly faced resource shortages and lacked the institutional support needed to continue operations. Leaders of these organizations often saw themselves as temporary relief actors rather than long-term partners in reconstruction. This pattern supports Wagle (2006) argument about systemic constraints: without robust organizations and adequate external resources, community initiatives remain fragile.

The 2024 response clearly demonstrated the limits of volunteer capacity. Exhaustion among CSOs and volunteers was not just physical but also financial and motivational, as many relied on one-time donations and personal funds. Unlike state-led mechanisms described in the standing order on disaster management, most local groups simply could not sustain the slow and costly process of agricultural and livestock recovery. This institutional gap left an unaddressed secondary economic loss flow to cascade through the rural economy, and it highlights a fundamental weakness in collaborative governance. As Tierney (2012) argues, effective governance must extend beyond the emergency phase, yet in Nay Pyi Taw, the independence and initiative shown by CSOs during the response faded during recovery. Because the Disaster Management Law (2013) does not provide recovery resources to local groups, many organizations viewed their role as ending with the emergency phase. This synthesis reflects what (Matunhay, 2022) describes as a broken Disaster Management Cycle, where the response phase fails to connect with recovery, leaving a gap where reconstruction should occur.

Technical resource limitations further compounded these challenges. The Sendai Framework and MAPDRR Pillar 3 both emphasize the need to invest in disaster risk reduction for resilience. However, CSOs in Nay Pyi Taw were able to meet only slightly more than half of emergency rescue requests, revealing a serious technical limitation. Social capital, volunteer effort, and community motivation cannot replace the physical resources required for severe, climate-related flooding. The absence of high-capacity pumps and motorized rescue boats is evidence of a failure in resource governance. As Bly et al. (2021) note, disaster management requires strong coordination between organizations, especially when local capacity is overwhelmed.

The persistent gap between community-led efforts and access to professional tools reveals a weakness in implementing the Disaster Management Law's provisions on resource allocation. While the standing order calls for pre-positioning resources, the 2024 response showed that these rarely reached CSOs who were often the first responders. As long as volunteers are required to respond to disasters with only basic equipment, resilience will remain a policy objective rather than an operational reality.

Moreover, this failure in resource governance erodes community trust in the formal system. When local leaders see CSOs struggling with limited tools while state equipment remains inaccessible, the multi-stakeholder collaboration envisioned by the Sendai Framework remains largely aspirational. This demonstrates that investment in disaster risk reduction must be decentralized, with resources allocated directly to those on the front lines.

In conclusion, the limited ability of CSOs to meet rescue requests should serve as a warning to Myanmar's disaster planners. Volunteer capacity has clear limits defined by the availability of technical equipment and sustained support. Addressing these challenges will require the government to establish an equipment-sharing model that allows CSOs access to state resources, such as pumps and boats. Ensuring CSOs have reliable access to technical equipment is essential for translating policy into action and making community resilience a lived reality.

6.2.4 Recovery Limitation and the Challenges of Build Back Better

The final discussion point focuses on the recovery phase, which is the most critical stage of the Disaster Management Cycle (Matunhay, 2022). Both the Sendai Framework and Myanmar's Disaster Management Policies promote the principle of

build back better. However, the very limited number of households receiving livestock compensation and the failure to deliver agricultural support show that recovery has not been effective. Without a functional recovery phase, communities remain in a state of long-term vulnerability.

This finding supports Wagle (2006) warning that limited resources and organizational weaknesses create serious obstacles in recovery. In Nay Pyi Taw, the transition from response to recovery was slowed by weak institutions. The state was able to record losses but was not effective in restoring livelihoods. This outcome contradicts UNDP (2016) and UNDRR (2017), which emphasize that recovery should strengthen communities against future disasters, not just return them to normal conditions.

The lack of agricultural support is especially harmful in rural areas such as Lewe Township. When promised seeds, fertilizers, and machinery did not arrive, households were forced into debt or subsistence living. This shows that the disaster management cycle in Myanmar is incomplete: it stops at the response stage and fails at recovery. As a result, the principle of build back better remains only a policy statement and does not reach the village level.

The recovery limitations also reveal the absence of sustainability planning. After the 2024 flood, there were no post-event reviews or joint drills, leaving CSOs and communities without opportunities to learn and improve. Instead, they remain in a short-term coping cycle, waiting for the next disaster. This is the opposite of adaptive governance, which requires continuous learning and policy adjustment.

To improve recovery, CSOs should be formally involved in verifying community needs and distributing livelihood support. Since communities already trust CSOs, their participation would make recovery more transparent and effective. This would help ensure that build-back-better becomes a practical reality, moving communities from vulnerability toward long-term resilience.

6.3 Recommendation: A Unified Framework for Bridging CBDRM and Long-Term Resilience

This section presents detailed recommendations for strengthening disaster governance and community resilience, based on the findings summarized above. Table 6.2 provides an overview of the main issues, key findings, and corresponding recommendations.

Table 6.2 Summary of key findings and corresponding recommendations for CSO roles in flood recovery

Key Themes	Key Findings	Recommendations
CSO Role in Disaster Cycle	CSOs led search/rescue, basic services, recovery where government was absent or limited	Formalize CSO role in disaster planning and response
Horizontal Networking	Strong peer-to-peer info sharing, use of Viber/Facebook, but weak state integration	Build hybrid coordination networks; integrate digital platforms into official protocols
Technical Limitations	Insufficient equipment and practical training; slightly over a half of rescue needs met	Establish local resource centers; provide hands-on training and equipment-sharing models
Recovery Gaps	Limited livestock compensation; no agricultural support; recovery fragmented	Institutionalize joint post-disaster verification with CSOs; embed CSOs in recovery assessments
Community Trust	High trust in CSOs; rumors and mistrust in state distribution	Strengthen state-CSO collaboration for transparent, equitable aid
Vulnerable Groups	CSOs prioritized elderly/sick, but struggled to reach remote villages	Expand targeted preparedness; integrate vulnerability mapping into planning

Table 6.2 (continued)

Key Themes	Key Findings	Recommendations
Preparedness/Training	Training mostly theoretical; little practical, field-based learning	Shift to regular, practical drills; embed CSOs in all CBDM activities
EOC and Coordination	No central Emergency Operations Centre; CSOs improvised locally	Establish decentralized EOCs with CSO participation
Build Back Better	Recovery focused on immediate relief, not long-term resilience	Formalize CSO role in recovery verification; ensure recovery leads to sustainable resilience

Each of the key themes and recommendations outlined in Table 6.2 is explored in detail in the following subsections. Drawing on evidence from the 2024 floods, these sections justify each recommendation and link them to international frameworks like the Sendai Framework and the Ten Essentials for Making Cities Resilient.

Evidence from the 2024 floods shows that formal systems struggled to act quickly due to rapid flooding and slow mobilization. Although the Disaster Management Rules (2015) emphasize state supervision, the actual response revealed that community safety was more effectively achieved through the operational agility and trust embedded in local CSO networks. This experience highlights the need for township administrations to move beyond parallel operations and adopt a model of strategic collaboration between state authorities and CSOs.

A unified framework for disaster resilience requires transitioning from top-down regulatory control to an enabling environment where formal institutions and autonomous civic networks operate as equal partners. By leveraging the complementary strengths of both sectors, state resources and oversight, alongside CSO agility and community trust. Therefore, Myanmar can establish a horizontal partnership that secures both immediate safety and long-term community resilience.

This collaborative model directly aligns with Sendai Framework Priority 2, which emphasizes strengthening disaster risk governance and Priority 4 by enhancing

localized disaster preparedness for an effective response. Furthermore, this strategy supports the Ten Essentials for Making Cities Resilient, specifically advancing the core criteria of Essential 9 (Ensuring Effective Disaster Response) and Essential 10 (Expediting Recovery and Building Back Better).

6.3.1 Cooperation for Governance

To advance disaster resilience in Myanmar, township authorities and CSOs should establish a governance system rooted in mutual complementarity and horizontal coordination. Evidence from the 2024 floods demonstrates that the CSOs studied possess unique operational agility and deep-rooted community trust. These qualities enable them to fill systemic spatial gaps effectively during emergencies. Rather than imposing oversight or restrictive protocols, township disaster management committees are encouraged to formalize partnerships with CSOs through collaborative agreements. These agreements would clarify roles and responsibilities before a disaster while crucially preserving complete CSO operational autonomy.

The pivotal role of decentralized communication networks during the 2024 flood disaster illustrates how these principles can be translated into effective practice. The phone networks and the CSO-run Viber group became the backbone of early warning dissemination, resource mobilization, and real-time rescue coordination across affected communities. Such platforms demonstrate the practical benefits of integrating local initiative with technological tools and established trust networks.

Embedding these collaborative digital networks into official disaster governance reflects Sendai Framework Priority 2, which calls for the strengthening of disaster risk governance to manage disaster risk through clear institutional arrangements and coordinated multi-stakeholder engagement. Regular joint meetings and shared digital communication platforms will enable real-time information exchange, ensuring that both state and civil society actors are empowered to respond effectively. Such arrangements also address UNDRR Essential 1, Organize for Disaster Resilience, by promoting clear coordination mechanisms and inclusive stakeholder engagement. They further fulfill the objectives of Essential 6, Strengthen Institutional Capacity for Resilience, by enabling multiple organizations to execute their distinct roles efficiently and without bureaucratic delay.

By institutionalizing these horizontal partnerships and integrating the operational strengths of both sectors, this strategic alignment allows local authorities to develop a disaster governance system that is highly resilient and adaptive. Furthermore, this collaborative model is fully aligned with Sendai Priority 4, which emphasizes enhancing disaster preparedness for effective response and to Build Back Better in recovery. Adopting this approach would enable Myanmar to fulfill the intent of the UNDRR Ten Essentials and advance the vision of the Sendai Framework for a disaster risk governance model that is institutionally robust, community-centered, and future-oriented.

6.3.2 Integrated Planning: Moving from Parallel to Strategic Collaboration

The post-disaster phase of the 2024 flood exposed a profound recovery deficit across Lewe Township. While local CSOs and monastic networks demonstrated immense capacity in executing early-stage WASH interventions, long-term economic and agricultural restoration remained severely fragmented. This misalignment highlights that local recovery practices have not yet aligned with the long-term strategic targets set by resilience indicators for post-event reconstruction. As a result, affected populations remain detached from broader resilience objectives.

Addressing this fragmentation requires township administrations to institutionalize a multi-sectoral recovery coordination committee comprising the Township GAD, the Department of Agriculture, localized CSO networks, and regional microfinance institutions. This integrated structure strengthens long-term societal capacity for resilience by bridging the gap between immediate relief and strategic development. Within this framework, the committee must coordinate post-disaster reconstruction, moving response efforts beyond short-term distribution and toward livelihood restoration.

Operationalizing this transition requires the adoption of a joint verification protocol for post-disaster assessments. This arrangement positions CSOs and religious leaders as formal partners in verifying loss records, directly resolving the data verification gaps that previously intensified mistrust among affected households. During the 2024 crisis, the state recorded losses methodically but delivered inconsistent and insufficient support. By adopting a collaborative verification process, local authorities can strengthen resource governance and accountability. This approach shifts

aid distribution away from simple communal equality toward targeted equity based on actual household vulnerabilities. This targeted strategy directly protects the most vulnerable populations while serving as a critical foundation for advancing risk-sensitive development across the township.

To secure structural legitimacy and equity in reconstruction, formal disaster frameworks must embed grassroots participation into all post-disaster verification processes. Trusted local actors should be actively engaged to assess needs and confirm reconstruction priorities. Evidence from the 2024 floods shows that when CSOs and community leaders managed the verification of loss records, affected households reported higher levels of trust and satisfaction with the fairness of the process. This outcome underscores the importance of local participation in ensuring legitimacy during recovery. Documenting and formalizing community representatives within these administrative procedures enables township authorities to mitigate persistent challenges in recovery management. Implementing these integrated mechanisms advances the core objectives of Sendai Framework Priorities 2 and 4 by fostering inclusive, participatory governance, thereby ensuring that preparedness, response, and recovery are collaboratively managed to deliver resilient outcomes. Sustained CSO participation is vital for long-term resilience because their embedded community trust and livelihood support capacities ensure recovery processes address vulnerabilities that state mechanisms alone often overlook.

6.3.3 Institutionalizing Resilience through Joint Practice

Evidence from the 2024 floods showed that technical and infrastructure shortages limited rescue capacity, a major barrier to effective response. Although communities showed strong social cooperation, the lack of equipment such as motorized boats, water pumps, and rescue equipment limited rescue coverage to about 65% of requests. This technical deficit underscores a persistent challenge in maintaining adequate institutional staffing and resource capacity. To address this, the state, together with international donors, is recommended to establish community-managed resource centres in high-risk village tracts of Lewe Township. This approach addresses Essential 8 by strengthening local infrastructure for disaster response, and Essential 9 by improving preparedness and emergency management capacity at the community level.

These centres would serve as decentralized storage points for essential equipment, helping to close the resource capacity gap. Emergency depots should be set up in elevated, easily accessible community locations, such as monasteries or CSO offices, to ensure supplies can be reached even during floods. Each depot should contain standardized equipment, including shallow-draft boats, submersible pumps, and professional search-and-rescue kits. By placing these assets under the management of local CSOs, the state can ensure that equipment is available immediately in the first days of a disaster. Managing these emergency depots also supports self-reliance. CSOs would be responsible for equipment inventory, maintenance, and seasonal testing. The state's role would be to provide initial funding and training, while CSOs handle daily logistics. This arrangement ensures that equipment is kept in good condition and used in community preparedness drills. Expanding the scope of these centres to include basic agricultural recovery tools would strengthen post-disaster reconstruction. Providing such tools within the centers would help communities recover faster and reduce long term vulnerability.

The 2024 floods showed a major institutional gap in post disaster sustainability. Notably, there were no joint drills or collaborative reviews after the event. While CSOs acted quickly, their technical growth was limited by their lack of access to professional state-led training and standardized safety protocols. To address this, the Township Disaster Management Committee is recommended to move from theoretical instruction to state-led technical professionalization. The Fire Department and Social Welfare Department should provide hands-on, field-based training tailored to the river conditions of Lewé Township, focusing on motorized search and rescue and advanced water safety. This transition establishes regular training programmes for vulnerable populations, enhancing community coping capacities.

In addition, the state should institutionalize joint community-based disaster simulations. These simulations should go beyond classroom education to provide practical readiness at the community level and be co-designed with CSO networks to reflect the delays and communication problems identified in this study. Conducting drills at the village tract level would allow the state and CSOs to synchronize information flows and test how quickly resources can be deployed from decentralized

centres. Regular integration of public and professional actors in these exercises strengthens institutional capability

Another important step is the establishment of a post-disaster review mechanism. Township authorities should require a joint reflection forum after any major disaster, enabling state actors and CSO coordinators to conduct structured technical reviews. Such forums would help identify which protocols failed and which innovations, such as Viber-based warnings, should be formalized for future responses. This process would directly inform improvements to standard operating procedures.

Finally, it is recommended that the state leverage CSO networks as the primary channel for community disaster education. By equipping CSOs with standardized educational materials and technical knowledge of early warning systems, the state can strengthen social capital and ensure that warnings are widely understood and acted upon.

6.3.4 Summary of A Unified Framework for Bridging CBDRM and Long-Term Resilience

The recommendations presented in this chapter provide a practical roadmap for transforming parallel disaster responses into an integrated partnership. By linking field evidence from the 2024 floods with global resilience frameworks, these strategies bridge the gap between community agility and formal state capacity. The proposed interventions shift local disaster management from top-down regulatory control toward an enabling environment where formal institutions and CSO networks operate as partners to secure community resilience.

First, to strengthen cooperation for governance, the state should formalize existing civic communication channels under a Pre-Authorized Coordination Protocol. This strategic mechanism integrates the trusted local Viber group and the blood donor phone networks directly into the official township response structure. By establishing these clear, horizontal links before a disaster, local authorities can eliminate critical warning delays. This policy action satisfies the collaborative mandates of UNDRR Essentials 1 and 6 while advancing Sendai Framework Priority 2.

Second, to improve integrated planning, township authorities should implement a Joint Verification Protocol managed by a multi-sectoral recovery committee. Formalizing the roles of CSOs and religious leaders in post-disaster assessments

directly resolves the verification gaps that previously created community mistrust. This collaborative arrangement shifts recovery efforts from equal division to a targeted equity approach based on actual household vulnerabilities. Consequently, this mechanism strengthens resource accountability under UNDRR Essential 7 and aligns with Sendai Priority 4 to Build Back Better.

Finally, institutionalizing resilience requires shifting from theoretical instruction to hands-on, collaborative practice. The state and international donors should establish decentralized, community-managed resource centers in high-risk village tracts to store standardized rescue assets. Furthermore, the township should mandate regular field-based simulations and joint post-disaster technical review forums co-designed with CSOs. This continuous collaborative training corrects operational communication delays and builds the long-term technical capacities required by UNDRR Essentials 8 and 9.

The structural flow of these recommendations reflects the fundamental logic of the UNDRR Ten Essentials for Making Cities Resilient. According to the UNDRR model, true resilience cannot be achieved through isolated actions. Instead, local administrations must systematically progress through three chronological phases: establishing institutional governance, executing integrated planning, and operationalizing response and recovery preparedness. This study translates this global framework into localized practice to guide the township from immediate safety toward long-term resilience. At each stage, the recommendations explicitly support the critical roles of CSO networks, recognizing them as essential partners in building community capacity, ensuring transparency, and sustaining resilience throughout the disaster management process.

6.4 Recommendation for Further Study

This study has focused mainly on the role of CSOs in the 2024 flood recovery in Lewu Township. While the findings provide important insights into community-led disaster management, further research is needed to include state perspectives, compare different regional contexts, and examine long-term recovery outcomes. Expanding the

scope will help build a more comprehensive understanding of disaster governance in Myanmar and support the design of policies that integrate community and government capacities.

The first important area for future research is the transition toward multi-stakeholder governance by incorporating the state perspective into disaster management. This study mainly documented the operational roles of CSOs, but a full understanding of the policy-to-practice gap requires closer examination of the Township GAD and the Department of Social Welfare. Future studies should investigate internal barriers such as legal liability rules, budget restrictions, and hierarchical command structures that prevent government officials from formally authorizing CSO networks. Understanding these constraints is necessary for building an integrated disaster management model that promotes collaboration between state and community actors.

A second area is the need for a comparative analysis of regional responses. This study focused on the context of Lewe Township, but Typhoon Yagi affected many regions with different ecological and political conditions. For example, flash-flood areas in Shan State and the downstream plains of Bago experienced different impacts. Comparative research would show whether the limitations identified in Nay Pyi Taw are common across the country or specific to certain sites. Finally, there is a need for a longitudinal study of recovery and rural debt cycles. This research found that many households entered high-interest debt after the relief phase to restart agricultural production. Future studies should track affected families for three to five years to measure the long-term impact of the 2024 floods on rural poverty. Such evidence would help shift disaster recovery from short-term relief toward long-term reconstruction, ensuring that community self-reliance is supported by professional state-led recovery planning.

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