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Community-Based Disaster Risk Reduction in Rakhine State, Myanmar

Abstract

This article examines the effectiveness of community-based disaster risk reduction (CBDRR) strategies in enhancing sustainable resilience in flood-prone areas of Rakhine State, Myanmar. The study investigates the current CBDRR strategies in place, as well as vulnerability, challenges, and best practices and lessons learnt from successful CBDRR programmes. The article also explores the integration of traditional knowledge and practices into CBDRR strategies and the role of government and stakeholders in supporting their implementation and sustainability. Additionally, it highlights the important role that the Association of Southeast Asian Nations (ASEAN) can play in promoting community-based disaster risk reduction strategies in flood-prone areas of Rakhine State in Myanmar. Specifically, ASEAN can facilitate regional knowledge sharing and exchange on best practices and lessons learnt from other Member States, which can help to identify effective approaches to enhancing sustainable resilience in the region. The findings suggest that effective CBDRR strategies that incorporate traditional knowledge and practices can enhance sustainable resilience in flood-prone areas. However, challenges related to funding, capacity building, and community engagement need to be addressed to ensure the success and sustainability of these strategies.

Keywords: Community-based disaster risk reduction (CBDRR), Rakhine Myanmar, Sustainable resilience, flood-prone areas, natural hazards, vulnerability factors, ASEAN strategies, Disaster Risk Reduction,

1. Introduction

[...] Floods are a recurrent disaster in Rakhine State, Myanmar, with devastating consequences for the population living in flood-prone areas (Relief International, 2016). In recent years, there has been a growing recognition of the importance of community-based disaster risk reduction (CBDRR) strategies (Food and Agriculture Organization of the United Nations, 2016) in enhancing sustainable resilience in these vulnerable areas. CBDRR strategies are designed to empower local communities to identify and manage their risks, reduce their exposure to natural hazards, and enhance their capacity to cope with and recover from disasters. The vulnerability of Myanmar to natural hazards, particularly in flood-prone areas of Rakhine State, highlights the importance of CBDRR in enhancing sustainable resilience. As a Member State of the Association of Southeast Asian Nations (ASEAN), the region's cooperation and prioritisation of disaster risk reduction further emphasises the significance of this topic in the ASEAN regional context. Moreover, the international discourse on disaster risk reduction and sustainable development underscores the need for investment in community-based approaches to reduce the impact of disasters.

2. Socioeconomic and Environmental Factors of Rakhine

Several socioeconomic and environmental factors contribute to the vulnerability of communities in flood-prone areas of Rakhine State in Myanmar. The state faces numerous challenges that contribute to its vulnerability to floods. Firstly, its location in a flood-prone region means that it is regularly affected by monsoonal floods (Noor & Tawsif, 2020). Additionally, a significant proportion of the population in Rakhine State lives in poverty, limiting its capacity to cope with and recover from disasters. Many communities also lack basic infrastructure such as drainage systems, bridges, and roads, making them more vulnerable to flooding. Low-quality housing is prevalent in many communities, further increasing their vulnerability to flood damage. Deforestation in upstream areas can also increase the likelihood of floods by reducing soil stability and increasing runoff (Tun et al., 2019). Moreover, the impacts of climate change may exacerbate flood risk in Rakhine State, as changes in rainfall patterns and increased frequency and intensity of extreme weather events may occur (Oo & Win, 2021). The ongoing conflict and displacement in Rakhine State can exacerbate vulnerability to floods, as communities may lack the resources and support needed to prepare for and recover from disasters. [...]

The effectiveness of CBDRR in enhancing sustainable resilience in flood-prone areas of Rakhine State in Myanmar varies depending on several factors, such as the specific strategies implemented, the level of community participation and engagement, and the resources

available for implementation and monitoring. CBDRR strategies in Rakhine State have shown promising results in enhancing sustainable resilience in flood-prone areas. Early warning systems, community evacuation plans, and infrastructure development have significantly reduced loss of life and property damage during floods. Education and awareness programmes, community-led disaster management committees, and livelihood diversification programmes have also improved community preparedness and resilience.

[...]

3. Literature review

Natural hazards, particularly floods, pose a significant threat to the sustainable development of Myanmar, specifically in the Rakhine State, which has a history of recurring floods. Whilst the government and international aid organisations have previously implemented strategies to reduce disaster risks, there is a growing recognition of the importance of adopting community-based approaches for disaster risk reduction. CBDRR is an approach that empowers communities to actively engage in identifying and mitigating their vulnerability to natural hazards through the development of local capacity and the enhancement of resilience (Malteser International, 2013). For example, a study conducted in Bangladesh found that community-based flood management programmes improved community awareness and preparedness, reduced the impact of floods, and enhanced community resilience (Brammer, 2010). Similarly, a study conducted in Indonesia found that CBDRR programmes reduced the vulnerability of communities to natural hazards and contributed to sustainable development (Yusuf, 2010).

In Myanmar, a study conducted in the Ayeyarwady Delta found that community-based disaster management programmes had a positive impact on disaster preparedness and response (Win et al., 2019).

[...]

Win and Aye (2018) conducted a study that examined the overall effectiveness of CBDRR strategies in enhancing sustainable resilience in flood-prone areas of Rakhine State. The study evaluated the level of community participation and the impact of CBDRR initiatives on disaster preparedness.

[...]

4. Local participation in community-based disaster risk reduction

Several local organisations in Rakhine State play a crucial role in enhancing the effectiveness of CBDRR strategies and building sustainable resilience in flood-prone areas. The Rakhine State Local Civil Society collaborates to advance community-based disaster risk reduction and resilience-building through various initiatives, including awareness campaigns, training programmes, and disaster response activities (Care Myanmar, 2022). The Rakhine Women's Network (RWN) conducts gender-sensitive disaster risk reduction and resilience-building in the region (RWN, 2023). Additionally, the Rakhine Coastal Region Conservation Association (RCA) contributes to environmental sustainability and resilience-building by engaging in community-based natural resource management and climate change adaptation practices (RCA, 2023).

The Youth and Community Development Network (YCDN) promotes sustainable development and resilience-building through infrastructure development, livelihood support, and community-based disaster risk reduction. YCDN's collaboration with the Child's Dream Foundation showcases its commitment to rural development in Rakhine State. By implementing water and sanitation activities and focusing on sustainable agriculture, its project aimed to improve livelihoods and enhance the capacity of young farmers (YCDN, 2023). These organisations play a crucial role in promoting community participation and ownership in disaster risk reduction programmes and in ensuring that the needs and perspectives of the local communities are taken into account in programme design and implementation. By involving local organisations in the implementation and evaluation of community-based disaster risk reduction strategies, their effectiveness can be enhanced, and they can contribute to sustainable resilience-building in flood-prone areas of Rakhine State.

5. National developments in community-based disaster risk reduction

The Government of Myanmar has recognised the importance of CBDRR in enhancing sustainable resilience in flood-prone areas of Rakhine State and included CBDRR as a key priority in its national policies and strategies. The Myanmar National Disaster Management Plan for 2017–2021 prioritised the implementation of CBDRR activities to enhance disaster resilience at the community level. It also aimed to build the capacity of communities to prepare for, respond to, and recover from disasters and to promote community participation in disaster risk reduction efforts. Additionally, the government established the Myanmar Climate Change Alliance, which is a partnership between the government, civil society organisations, and the United Nations, with the aim of building climate resilience in Myanmar (Department of Disaster

Management, 2017). The Myanmar Climate Change Alliance focuses on community-based adaptation and disaster risk reduction and aims to enhance the capacity of communities to cope with the impacts of climate change and natural hazards.

[...]

Some local organisations have continued to work with communities to develop early warning systems, conduct risk assessments, and improve disaster preparedness and response. The United Nations and other international organisations have also continued to provide support for disaster risk reduction activities in the region (United Nations Office for Disaster Risk Reduction, 2018). Whilst the coup d'état and civil war in Myanmar have undoubtedly posed significant challenges to the implementation and sustainability of CBDRR, there remain efforts to build resilience and enhance disaster preparedness in the region. The Government of Myanmar, before the coup, recognised the importance of CBDRR in enhancing sustainable resilience in flood-prone areas of Rakhine State (RW, 2021) and took steps to prioritise and support these efforts through its policies, strategies, and institutional capacity-building initiatives.

[...]

6. ASEAN in community-based disaster risk reduction

[...] CBDRR is a key component of this framework, and its implementation is crucial to building resilience and reducing the impact of disasters in ASEAN Member States. The United Nations' Sendai Framework for Disaster Risk Reduction 2015–2030 further emphasises the importance and highlights the need for greater investment in CBDRR.

In the case of Rakhine State, ASEAN could provide technical assistance and capacity building to support the development and implementation of CBDRR. This could include training on disaster preparedness and response, as well as support for community-based organisations and local government agencies in developing risk assessments and disaster management plans.

[...]

7. International Organisations and community-based disaster risk reduction

Assessments of the effectiveness of CBDRR in enhancing sustainable resilience in flood-prone areas of Rakhine State in Myanmar have been conducted by various organisations. The

following case studies highlight their efforts to support CBDRR in Myanmar, especially in Rakhine State. The United Nations Development Programme (UNDP) case study provides examples of successful initiatives and lessons learnt. It emphasises the significance of involving communities in decision-making and the importance of long-term sustainable solutions (UNDP, 2019). This approach recognises that communities are the best experts on their needs and context and that involving them in the decision-making process leads to more effective and sustainable solutions. Plan International's case study highlights the importance of building trust with communities (Plan International, 2017), addressing social and cultural barriers to participation, and collaborating with local authorities. These factors are crucial for ensuring that CBDRR programmes are effective and sustainable in the long term.

Mercy Corps emphasises community ownership and sustainability in its approach to disaster risk reduction (Mercy Corps, 2016). It recognises that communities must be empowered to take ownership of disaster risk reduction efforts to ensure their sustainability. Oxfam's focus is on capacity building and empowering local communities whilst working in a complex political and social context (Oxfam, 2015). This approach recognises the importance of building the capacity of local actors to lead and sustain disaster risk reduction efforts. Save the Children emphasises the importance of involving children and youth in disaster risk reduction efforts and the need for sustainable solutions that address underlying vulnerabilities (Save the Children, 2016). It recognises that children and youth are often the most vulnerable to the impacts of disasters and should be involved in the decision-making process. [...]

These organisations have implemented CBDRR programmes in Rakhine State and conducted assessments to evaluate their effectiveness. [...] By involving community members in the data collection process, these assessments can provide valuable insights into the impact of these interventions and can help to identify areas for improvement.

[...]

8. References

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