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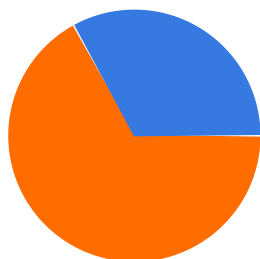
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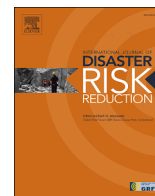
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Adaptation strategies and community participation in government-led mitigation projects: A comparison between urban and suburban communities in Pekalongan, Indonesia

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ABSTRACT

Governments often take a top-down approach in their mitigation projects to deal with the risks of climate change in coastal areas. However, community participation may increase the effectiveness of a mitigation project. Places whose community has a different nature of place/social attachment can have a different community likelihood of participating in social activities, particularly its community-led adaptation strategies and involvement in government-led mitigation projects. Therefore, this research article explores the differences between how an urban community and a suburban community implement adaptation strategies and participate in government-led mitigation projects. We conducted a questionnaire survey to collect data from 100 urban and 100 suburban residents. The results were analyzed using descriptive statistics and corroborated by five key informants. The results indicate that the suburban community was more likely to implement community-led adaptation strategies due to its willingness to participate in social activities. The suburban community also had more significant participation in government-led mitigation projects and then positively affected the outcomes of the projects. Other factors like the role of villages' heads and the existence of facilitators also influenced the local community to participate in the projects. This study suggests that more significant community participation might increase the sense of belonging of the local community in government-led mitigation projects. Therefore, the local community would have a stronger willingness to maintain and contribute to the sustainability of the projects' results.

1. Introduction

The impacts of climate change, such as sea-level rise (SLR), flooding, and storm surge, have been threatening the world's coastal lowlands, including coastal cities and their surroundings, where about 1.6–2.3 billion or 15 to 23% of the world population will live in by the end of 21st century [1]. The Intergovernmental Panel on Climate Change (IPCC) predicted that with the rate of sea-level rise

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Evaluation of community resilience to debris-flow disasters: A case study of Nantou, Taiwan

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ABSTRACT

Taiwan is located in the subtropical monsoon region. Typhoons, earthquakes, and rainfall have historically been the most serious natural disasters affecting the region, especially its geologically sensitive mountain settlements. The heavy rain associated with typhoons can readily cause large-scale compound disasters such as landslides, rockfalls, and debris flows, and thus can cause sudden blockages to waterways. The existing body of research on earth and rock disaster prevention mostly considers the potential of occurrence and the degree of harm, but pays relatively scant attention to community resilience. To fully understand the potential risks of hillside communities exposed to debris-flow disasters, and the occurrence of unavoidable disasters, it is essential to gauge each community's pre-disaster preparedness, as well as its disaster response and post-disaster recovery capabilities. Accordingly, through a rigorous literature review, the Fuzzy Delphi method (FDM) and the analytical hierarchy process method (AHP), this study develops a resilience assessment framework. The development process indicated that the most important factor in community resilience is the community's environment, followed by adjustment and learning: i.e., the residents' cognition and response mechanisms to debris-flow disasters. Other key assessment indicators include the degree of potential hazard, the ratio of landslide area to exposed area, the local history of such disasters, risk perceptions, and population density. The framework is therefore valuable for enhancing community resilience and disaster preparedness, and reducing the impact of disasters.

1. Introduction

Climate change has resulted in a dramatic worldwide increase in the probability and intensity of extreme climate events, and responding to such events is an urgent priority in many countries. In 2007, the United Nations Framework Convention on Climate Change (UNFCCC) divided possible strategies for dealing with such events into two broad types, "mitigation" and "adjustment" [1]. Eight years later, the United Nations adopted three globally relevant climate-sustainable guidelines, namely the Sendai Framework for Disaster Risk Reduction: 2015–2030, the Sustainable Development Goals 2015–2030, and the Paris Climate Agreement. Taken together, these three documents integrate mitigation and adjustment strategies based on a common goal of human sustainability (Liao, 2016) [2]. The Sendai framework, an elaboration of the Hyogo Framework for Action (2015), aims both to prevent disasters and to reduce disaster risk and vulnerability through the integration of measures including the preparation of contingency, recovery and reconstruction plans, and then improving disaster tolerance to prevent emerging and reduce existing disaster risk [3].

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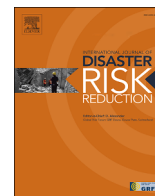
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Governing the post-disaster recovery network in Nepal: Organizational challenges of public managers

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ABSTRACT

Governing the network of public, private, and non-governmental organizations is increasingly becoming the standard practice to ensure effective post-disaster recovery and reconstruction processes and outcomes. While prior studies have discussed different challenges in network settings, few studies have examined the challenges faced by public managers who steer post-disaster recovery networks. Drawing on network governance and organizational theory and using 81 semi-structured interviews, we revealed three major challenges of the Nepal Reconstruction Authority's (NRA) public officers in managing the recovery network involving diverse stakeholders. First, national governments frequently divided and merged the fragmented and centralized organizational structure of NRA which added barriers to NRA officers' network management practices. Second, national governments directly controlled the NRA's access to disaster finances and human resources and influenced the personnel management of the NRA through the recruitment and dismissal of CEOs, executives, and employees. Third, stringent bureaucratic rules and practices impacted the organizational flexibility of NRA. Based on the findings that show the influence of national governments and bureaucracies on the organizational dimensions and public offices of the NRA, we argue the centralization of post-disaster governance in national governments and bureaucracies—rather than in the NRA.

1. Introduction

Network governance scholars argue that intervention in a governance structure (i.e., the establishment of a new network administrative organization [NAO]) can facilitate collaboration within a network that has moderate trust, moderate goal consensus, many stakeholders, and low competencies in providing effective public service delivery [1,2]. Particularly, network management scholars emphasize the critical role, strategies, and skills of network managers of a management organization in achieving the desired collaborative processes and practices [1,3,4].

In the context of post-disaster recovery governance, the establishment of an NAO has become the standard governance intervention to steer complex, contentious, and differential recovery processes [5,6]. In other words, in a donor-driven, post-disaster recovery and reconstruction project, a central recovery management organization is often established for achieving the effective control, direction, and coordination of stakeholders to advance shared recovery goals and objectives. While network and post-disaster recovery studies have highlighted the importance of a central administration or management organization in managing recovery processes and practices, little is known about the challenges faced by managers of such organizations in post-disaster recovery contexts.

This paper investigates challenges faced by the network managers of the Nepal Reconstruction Authority (NRA)—a network administrative organization [1] that was established to steer the post-disaster recovery assistance network after the 2015 Nepal earthquake. The specific focus of the paper is on challenges that relate to how NRA was structured as an organization. The post-disaster recovery assistance network in Nepal includes the ruling national government, various government ministries and departments, international donors, multilateral and bilateral organizations, international non-governmental organizations, national non-governmental

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