

Decentralization and Disaster Response: Federal Structures in Nepal's Earthquake Management

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ABSTRACT

Nepal's adoption of federalism following the 2015 Constitution introduced a transformative shift in its governance framework, particularly affecting disaster response structures in a country highly vulnerable to seismic events. This research investigates how federal restructuring has shaped the effectiveness, coordination, and resilience of earthquake management efforts. Centered on the post-2015 landscape, the study uses a qualitative methodology relying exclusively on secondary data, including government policy frameworks, development agency reports, academic literature, and media analysis. Special attention is given to evaluating the delineation of roles across federal, provincial, and local governments, as well as to assessing institutional capacity-building and intergovernmental collaboration in the aftermath of the 2015 Gorkha earthquake. The findings highlight notable strengths such as increased local autonomy and improved community engagement, while also revealing persistent bottlenecks in resource allocation, coordination protocols, and policy implementation. Despite formal decentralization, lingering centralization in funding and decision-making hampers timely and inclusive disaster response.

This study concludes with targeted policy recommendations to enhance federal resilience, promote effective cross-tier coordination, and strengthen local governments' operational capacities in earthquake-prone areas. By bridging gaps in disaster governance, Nepal's federal model can serve as a blueprint for resilient, community-driven emergency systems in similarly vulnerable contexts.

KEYWORDS

Federalism, Decentralization, Earthquake Management, Disaster Governance, Nepal, Local Government, Policy Analysis

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A. INTRODUCTION

Nepal's transformation from a unitary state into a federal republic brings one of the most significant political and administrative shifts in its modern history. The 2015 Constitution introduced a federal framework to decentralize governance aimed at improving service delivery and promoting inclusive participation across diverse regions and communities. This transition occurred in a period shadowed by the devastating Gorkha Earthquake—an event that not only revealed the inadequacies of Nepal's centralized disaster response but also galvanized national dialogue on improving resilience through localized governance.

Federalism promises enhanced responsiveness and flexibility during disasters, with local governments positioned as frontline actors in mitigation, preparedness, and recovery. However, operationalizing these ideals within Nepal's multi-tiered structure has proven complex. This paper explores the interplay between federalism and disaster governance, analyzing how secondary data from policy documents, reports, and academic literature reflect the strengths and shortcomings of Nepal's federal earthquake response.

By cross-examining the effects of federalization on disaster coordination, local capacity, and community resilience, the study provides timely insights for policymakers, practitioners, and scholars seeking to strengthen Nepal's emergency response systems in a politically devolved context.

B. RESEARCH QUESTIONS

1. How has Nepal's federal transition influenced the structure and coordination of disaster response systems?
2. What strengths and limitations emerge from the use of federal mechanisms in earthquake management based on existing records and evaluations?
3. To what extent does decentralization promote community resilience in the face of seismic disasters in Nepal?

C. LITERATURE REVIEW

1. Overview of Federalism in Nepal

Nepal adopted a federal governance structure with the promulgation of its 2015 Constitution, which sought to decentralize authority and improve service delivery across its provinces and municipalities (Lawoti, 2015). The federal system is structured into three tiers—central, provincial, and local—each with distinct administrative and legislative roles. This restructuring was designed to shift governance closer to citizens and reduce the over-centralization that had long characterized Nepal's bureaucracy.

Nepal's shift to federalism was codified through the 2015 Constitution, which reimagined the state as a decentralized republic comprising federal, provincial, and local governments. Scholars agree that this transformation was driven by a long-

standing need to dismantle centralized systems that had historically marginalized ethnic minorities, rural populations, and disadvantaged communities[1].

Chalmers and Joshi (2018) argue that federalism in Nepal is deeply intertwined with identity politics and inclusive governance, as the restructuring aimed at reflecting ethnic and geographic diversity[2]. While decentralization is widely promoted to enhance democratic participation and service delivery, the Nepalese context demonstrates how rapid political transitions can outpace institutional preparedness.

Pandey (2019) highlights a critical tension in Nepal's federal design: the legal decentralization of authority versus practical centralization of resources. Local governments, though empowered constitutionally, often struggle with limited fiscal autonomy and lack the administrative capacity to execute their mandates effectively[3]. Additionally, the model of federalism in Nepal has been critiqued for its complexity. Upreti et al. (2021) note that confusion in delineating responsibilities across government tiers has created bottlenecks, especially during emergencies[4]. These issues became particularly visible in the aftermath of the 2015 Gorkha Earthquake, which exposed the vulnerabilities of both centralized command and newly formed local bodies.

Comparative studies provide additional insight. Sharma (2020) draws parallels between Nepal and other post-conflict federations, emphasizing that successful decentralization depends not only on legal frameworks but also on capacity-building, trust in institutions, and political will[5]. Despite its challenges, federalism is seen as a promising path toward inclusive development. The Local Government Operation Act (2017) and successive budget allocations reveal incremental improvements in autonomy and participation, especially at the municipal level. But scholars continue to stress that meaningful decentralization must address structural inequalities and provide sustainable funding models[6].

2. Seismic Vulnerability and Historical Disaster Response

Nepal's geographical location along the boundary of the Indian and Eurasian tectonic plates makes it one of the most seismically vulnerable countries in the world. The Himalayan range itself is the result of these tectonic interactions, and frequent seismic activity has had a devastating impact throughout history. Historical records indicate major earthquakes occur roughly every century, with significant ones in 1255, 1934, and most recently, the 2015 Gorkha Earthquake[7].

Dixit (2003) argues that Nepal's disaster response has long been hampered by a reactive, centralized system, with little emphasis on preparedness or community participation[8]. During the 1934 earthquake, for example, rescue and relief operations were directed entirely by central authorities, with limited local engagement or institutional learning carried forward.

Scholars emphasize the 2015 earthquake as a turning point in Nepal's disaster governance. According to Pradhan (2016), this catastrophe laid bare critical gaps in

coordination, data management, and emergency logistics, exacerbated by weak institutional structures and poorly defined response protocols[9]. It prompted widespread critique of Nepal's centralized disaster system and reinforced calls for decentralized resilient infrastructure that engages local actors in planning and response. Kandel and Neupane (2017) highlight how decentralization post-2015 offered both opportunities and risks in disaster management. While local governments began adopting disaster risk reduction (DRR) strategies, many lacked adequate training, technical expertise, and financial resources[10]. In this context, federal reforms created openings for more tailored approaches but also exposed the fragility of newly empowered local bodies when faced with large-scale emergencies.

Furthermore, international development organizations such as UNDRR (2019) have warned that Nepal's seismic vulnerability remains critically high due to rapid urbanization, poor building code enforcement, and uneven investment in infrastructure[11]. These structural factors underscore the need for integrated disaster governance, where federal, provincial, and municipal levels collaborate to mitigate risks and enhance preparedness.

The literature also points to uneven impacts across geography and demography. Bhattarai and Conway (2018) observed that disaster responses in remote districts like Dolakha and Rasuwa were delayed and under-resourced, revealing a central bias in relief distribution[12]. Marginalized communities, including Dalits and indigenous populations, often faced exclusion from formal assistance, raising questions about equity and access in Nepal's disaster response system. Taken together, these scholarly works affirm that Nepal's seismic vulnerability is both a natural and institutional phenomenon. While federal reforms aim to decentralize disaster response, historical patterns of centralized control, coupled with current capacity constraints, suggest a need for more robust frameworks that engage and empower communities at every level.

3. Federalism and Disaster Governance

Studies such as Upreti and Timsina (2017) highlight how federalism in Nepal aspires to improve responsiveness and accountability in crisis management. The decentralization of decision-making authority gives local governments the autonomy to plan, prepare, and respond according to community needs. However, empirical reviews suggest that issues remain in capacity-building, coordination, and resource allocation. Despite formal devolution, the central government often retains disproportionate control over financial flows (UNDP, 2020). At the local level, numerous challenges hinder effective disaster management, including limited resources, inadequate technical expertise, and weak institutional capacity. Although federalism has granted local governments legal authority and certain operational responsibilities, secondary data reveals persistent gaps in funding and capabilities at the municipal level. While federal restructuring aims to decentralize governance and empower communities, the practical implementation of these reforms remains uneven and constrained by resource limitations.

4. Intergovernmental Coordination

Effective disaster management under federalism depends heavily on coordination mechanisms across levels of government. Institutional bottlenecks such as fragmented responsibilities, delayed budget transfers, and the absence of clarity of roles have undermined synergy during emergencies (NPC, 2019). Scholars argue that integrated policy frameworks and disaster management protocols remain underdeveloped and inconsistently implemented at the local level (Poudyal, 2018). I agree, and existing literature highlights that intergovernmental coordination mechanisms often lack effective collaboration and mutual support—especially during the initial phases of program implementation and in response to disasters or other social initiatives.

5. Community Resilience & Decentralization

Local governments serve as the first point of contact during crises. A growing body of literature highlights the importance of community-driven risk reduction strategies in fostering resilience (Shrestha et al., 2020). However, limited technical training, poor infrastructure, and unclear legal mandates have constrained local initiatives. The Local Government Operation Act (2017) provides a framework for municipal responsibilities, yet scholars question its operationalization during actual emergencies.

The concept of community resilience centers on the local population's ability to absorb, adapt, and recover from disasters while maintaining essential functions. In Nepal, resilience is increasingly framed within the context of decentralization—a structural shift that delegates authority to local governments, aiming to enhance responsiveness and contextual decision-making. This dual focus on community agency and institutional reform has gained traction post-2015, when the Gorkha Earthquake highlighted critical gaps in centralized disaster management.

Community-based disaster risk reduction (CBDRR) has emerged as a key strategy in fostering resilience. According to Maskrey (1989), CBDRR empowers local actors to identify vulnerabilities and mobilize resources, thereby internalizing disaster preparedness into daily governance[13]. In Nepal, this approach gained momentum with the integration of Local Disaster Risk Management Plans (LDRMPs), which enable municipalities and rural councils to design tailored contingency measures[14]. These plans often incorporate indigenous knowledge and traditional coping mechanisms, which remain vital in remote and hazard-prone districts.

Decentralization, however, presents a mixed landscape. While the 2015 federal reforms granted formal authority to local governments, many municipalities remain constrained by limited technical capacity, budgetary shortfalls, and inconsistent intergovernmental coordination (Bhandari & Pandey, 2020)[15]. This creates uneven resilience across regions, with some districts implementing robust preparedness strategies while others lag due to structural inequities.

The role of social capital in resilience-building has also received scholarly attention.

Aldrich (2012) contends that communities with strong networks of trust, reciprocity, and shared norms are more likely to recover effectively from disasters[16]. Nepal's tight-knit village structures—often organized along caste, ethnicity, or religious groups—serve as both a strength and a challenge in this regard. While informal networks can deliver rapid mutual aid, they may also reinforce exclusion and limit equitable distribution of resources.

Furthermore, decentralization offers a new frontier for accountability. As Dahal and Aryal (2019) note, local governments are now subject to community monitoring, with platforms like Ward Citizen Forums and public hearings promoting transparency and responsiveness[17]. These participatory mechanisms not only improve service delivery but also foster civic engagement in disaster governance.

International frameworks have bolstered Nepal's community-centric approaches. Programs such as the UNDP's *Comprehensive Disaster Risk Reduction Initiative* support local-level training, early warning systems, and community mobilization[18]. Still, sustainability remains a challenge, especially due to climate-induced hazards that stretch community capacities beyond traditional resilience.

In essence, the intersection of decentralization and community resilience represents both an opportunity and a delicate balancing act. While structural reforms promise localized authority and culturally relevant interventions, systemic disparities and capacity gaps must be addressed to realize truly inclusive resilience. The literature points to a need for hybrid models that blend institutional rigor with grassroots innovation—where communities are not just recipients of aid but co-creators of adaptive futures.

D. METHODOLOGY

This study adopted a qualitative research approach rooted in secondary data analysis. It emphasizes content analysis of publicly available records, policy documents, reports, and academic publications related to disaster response and federal governance in Nepal.

Data Sources

Government Publications: Constitutions, acts (e.g., Disaster Risk Reduction and Management Act 2017), budgets, strategic plans, and official communications from the Ministry of Federal Affairs and General Administration (MoFAGA).

NGO & IGO Reports: Publications from UNDP, World Bank, DFID, and ICIMOD detailing post-earthquake strategies and governance challenges.

Peer-reviewed Articles: Academic journals discussing federalism, decentralization, and earthquake response from databases such as JSTOR, Scopus, and NepJOL.

Media Analysis: Review of major Nepali news outlets (e.g., The Kathmandu Post, Republica) for coverage and commentary on disaster response

Data Analysis

Thematic Coding: Documents were coded according to themes including governance structure, coordination mechanisms, local capacity, and resilience.

Comparative Framework: Patterns were compared across multiple sources to identify converging and diverging narratives.

Triangulation: Analysis was validated through cross-referencing reports from different stakeholders (e.g., government vs NGOs).

E. FINDINGS AND DISCUSSION

1. Governance Fragmentation and Central Overshadowing

Secondary data reveals persistent tensions between formal decentralization and practical implementation. Despite constitutional guarantees, ministries and federal agencies continue to dominate resource allocation and policymaking in disaster contexts (UNDP, 2020). For instance, post-2015 reconstruction plans were heavily steered by central committees, with local governments sidelined in strategic decision-making.

This central dominance reflects a broader institutional culture where authority is equated with control, leaving little room for localized innovation. Evidence suggests that municipalities often serve as implementers rather than decision-makers, constrained by bureaucratic hierarchies and limited fiscal autonomy. Such overshadowing not only undermines the spirit of federalism but also delays context-specific interventions. The persistence of centralized command structures highlights the gap between constitutional ideals and operational realities, reinforcing dependency on Kathmandu-based institutions. Ultimately, this fragmentation weakens disaster governance by reducing responsiveness, eroding trust in local institutions, and perpetuating a cycle where communities remain passive recipients rather than active agents in resilience-building.

2. Coordination Across Tiers

One recurrent issue is intergovernmental misalignment. The 2017 DRRM Act established a National Disaster Risk Reduction and Management Council, but provincial and local disaster committees remain underfunded and understaffed (NPC, 2019). This misalignment was evident in response lags during floods and landslides between 2018 and 2021, where provincial governments reported delays in receiving directives or logistical support.

Such delays illustrate the absence of a coherent chain of command, where overlapping mandates and unclear responsibilities hinder timely action. Without synchronized communication channels, coordination remains reactive rather than anticipatory, limiting the effectiveness of federal structures in disaster response.

3. Local Government Capacity Constraints

The Local Government Operations Act mandates municipalities to formulate disaster plans. However, the municipalities do not have technical expertise or financial resources for the same. Reports from DFID (2019) show that less than 30% of municipalities had updated contingency plans, and only 15% conducted community risk assessments. This gap underscores the uneven readiness of local governments across Nepal.

Capacity constraints are further compounded by limited training opportunities and weak institutional memory, as disaster management often depends on short-term donor projects rather than sustained government investment. Smaller municipalities, particularly in remote districts, struggle to attract skilled personnel, leaving them reliant on ad hoc arrangements during crises. Moreover, the absence of standardized tools for risk assessment and planning creates disparities in preparedness, with some municipalities demonstrating proactive engagement while others remain largely inactive. These deficiencies highlight the urgent need for targeted capacity-building programs, fiscal decentralization, and stronger technical support mechanisms to ensure that local governments can fulfill their statutory responsibilities in disaster management.

4. Community Participation and Resilience

Data from Shrestha et al. (2020) illustrate how decentralization promotes grassroots-level engagement in areas with stronger civil society networks. In Gorkha and Sindhupalchok, the formation of community-based early warning systems and youth task forces significantly improved preparedness. Yet these successes are not universal. Local initiatives often falter due to a lack of institutional backing and inconsistent alignment with national policies.

Community participation demonstrates resilience when embedded in formal structures. However, reliance on voluntary networks without sustained state support risks fragility. Evidence suggests that empowerment must be institutionalized through training, funding, and integration into official disaster frameworks to ensure continuity and equitable outcomes across diverse localities.

5. Impacts on Equity and Inclusion

Federalism also opens up the conversation around inclusive governance. Secondary sources suggest marginalized communities (e.g., Dalits, women, indigenous groups) often face barriers in accessing disaster relief due to social biases and bureaucratic hurdles (Pradhan, 2016). While federal policies emphasize equity, implementation is uneven, especially in remote rural areas.

Equity remains aspirational without structural reforms. Disaster response mechanisms often reproduce existing hierarchies, leaving vulnerable groups underrepresented in planning and recovery. Addressing these disparities requires not only policy directives but also proactive monitoring, targeted resource allocation, and participatory mechanisms that amplify marginalized voices within federal disaster governance frameworks.

F. CONCLUSION AND RECOMMENDATIONS

Nepal's federal journey in disaster governance presents both promise and peril. The devolution of authority has the potential to democratize crisis response and tailor strategies to localized risks and community vulnerabilities. However, evidence drawn from secondary sources reveals uneven implementation, fragmented coordination, and persistent central dominance over resources and decision-making.

The findings underscore several critical issues:

- The lack of a robust institutional framework to support cross-tier coordination.
- Inadequate investment in local government capacity-building.
- Insufficient attention to inclusive disaster strategies for marginalized groups.

While the legal architecture of decentralization exists, its operationalization remains nascent. For federalism to meaningfully improve disaster resilience in Nepal, there must be:

- Clear delineation of roles and responsibilities among government tiers
- Accelerated fiscal decentralization to empower municipal initiatives
- Integrated contingency planning across provinces and municipalities
- Continuous training and technical support for local disaster actors
- Systematic inclusion of vulnerable communities in preparedness planning.

Ultimately, this study calls for a reevaluation of decentralization as not just a legal structure but a dynamic system with coordinated action, institutional maturity, and community partnership. Strengthening federal disaster response in Nepal is not only about governance—it's about safeguarding lives during inevitable natural threats.

REFERENCES

Adhikari, D. (2022). *Local government financing in Nepal: Trends and constraints*. Development Dialogue, (14).

Aldrich, D. P. (2012). *Building resilience: Social capital in post-disaster recovery*. University of Chicago Press.

Bhattarai, S., & Conway, D. (2018). Disaster response and rural marginality in Nepal: A spatial analysis. *Journal of Asian Geography*, 25(3), 145–162.

Bhattachan, K. B. (2015). The agenda of federalism in Nepal. *Journal of Political Science*, 15, 1–14.

Bhandari, D., & Pandey, R. (2020). Challenges of decentralization in disaster management: Lessons from Nepal. *Journal of Asian Governance*, 5(1), 33–50.

Bilham, R. (2015). Historical earthquakes in Nepal: Patterns and recurrence. *Seismological*

Research Letters, 86(5), 1585–1593. <https://doi.org/10.1785/0220150044>

Chalmers, T., & Joshi, B. (2018). Federalism, identity, and politics in Nepal. *Asian Affairs*, 49(3), 429–446.

Dahal, S., & Aryal, B. (2019). Citizen participation and accountability in local governance. *Nepal Policy Studies Review*, 3(2), 55–72.

DFID. (2019). *Assessment of municipal disaster preparedness*. UK Department for International Development.

Dixit, A. (2003). Floods and vulnerability: Need to rethink flood management. *Natural Hazards*, 28(1), 155–179.

Kandel, R., & Neupane, P. (2017). Decentralization of disaster risk governance in Nepal: Prospects and challenges. *Journal of South Asian Development*, 12(2), 223–244.

Lawoti, M. (2015). Federalism and inclusive democracy in Nepal. *Asian Survey*, 55(3), 533–556.

Maskrey, A. (1989). *Disaster mitigation: A community-based approach*. Oxfam UK.

NPC. (2019). *Post-disaster needs assessment report*. National Planning Commission, Nepal.

Pandey, K. (2019). Fiscal federalism in Nepal: Challenges and opportunities. *South Asia Journal*, (6).

Poudyal, R. (2018). Challenges to decentralization in disaster governance in Nepal. *International Journal of Disaster Risk Reduction*, 31, 755–763.

Pradhan, K. (2016). Nepal earthquake response: Lessons learned and policy recommendations. *Kathmandu Policy Review*, 2(1), 21–37.

Shrestha, A., Maharjan, R., & Shakya, P. (2020). Community resilience through local governance in Nepal. *Journal of Risk Governance*, 4(2), 45–62.

Sharma, R. (2020). Decentralization in post-conflict states: Lessons from Nepal. *Journal of Federal Studies*, 8(1), 22–38.

UNDP. (2020). *Governance and disaster response in Nepal*. United Nations Development Programme. <https://www.undp.org> <accessed on 6 June 2025>.

UNDP Nepal. (2017). *Local disaster risk management planning guidelines*. <https://www.undp.org/nepal>. <accessed on 2 July 2025>.

United Nations Office for Disaster Risk Reduction [UNDRR]. (2019). *Disaster risk reduction in Nepal: Progress and challenges*. <https://www.undrr.org>. <accessed on 4July 2025>.

Uperti, B. R., & Timsina, D. (2017). Federalism and disaster risk reduction: Opportunities and challenges for Nepal. *South Asia Journal of Disaster Studies*, 5(2), 99–114.

Uperti, B. R., Bhattarai, P., & Ghimire, S. (2021). Operationalizing federalism: Governance challenges in Nepal. *Policy Research Series*. Nepal Center for Contemporary Studies.

- [1] Bhattachan, K.B. (2015). "The Agenda of Federalism in Nepal." *Journal of Political Science*, Vol. 15, pp. 1–14.
- [2] Chalmers, T. & Joshi, B. (2018). "Federalism, Identity, and Politics in Nepal." *Asian Affairs*, Vol. 49(3), pp. 429–446.
- [3] Pandey, K. (2019). "Fiscal Federalism in Nepal: Challenges and Opportunities." *South Asia Journal*, Issue 6.
- [4] Upreti, B.R., Bhattarai, P. & Ghimire, S. (2021). "Operationalizing Federalism: Governance Challenges in Nepal." *Policy Research Series*, Nepal Center for Contemporary Studies.
- [5] Sharma, R. (2020). "Decentralization in Post-Conflict States: Lessons from Nepal." *Journal of Federal Studies*, Vol. 8(1), pp. 22–38.
- [6] Adhikari, D. (2022). "Local Government Financing in Nepal: Trends and Constraints." *Development Dialogue*, Issue 14
- [7] Bilham, R. (2015). *Historical earthquakes in Nepal: Patterns and recurrence*. Seismological Research Letters, 86(5), 1585–1593.
- [8] Dixit, A. (2003). *Floods and vulnerability: Need to rethink flood management*. Natural Hazards, 28(1), 155–179.
- [9] Pradhan, K. (2016). *Nepal earthquake response: Lessons learned and policy recommendations*. Kathmandu Policy Review, 2(1), 21–37.
- [10] Kandel, R., & Neupane, P. (2017). *Decentralization of disaster risk governance in Nepal: Prospects and challenges*. Journal of South Asian Development, 12(2), 223–244.
- [11] United Nations Office for Disaster Risk Reduction [UNDRR]. (2019). *Disaster risk reduction in Nepal: Progress and challenges*. <https://www.undrr.org>. <accessed on 4July 2025>.
- [12] Bhattarai, S., & Conway, D. (2018). *Disaster response and rural marginality in Nepal: A spatial analysis*. Journal of Asian Geography, 25(3), 145–162.
- [13] Maskrey, A. (1989). *Disaster mitigation: A community-based approach*. Oxford: Oxfam UK.
- [14] UNDP Nepal. (2017). *Local Disaster Risk Management Planning Guidelines*. <https://www.undp.org/nepal> <accessed on 2 July 2025>.
- [15] Bhandari, D., & Pandey, R. (2020). *Challenges of decentralization in disaster management: Lessons from Nepal*. Journal of Asian Governance, 5(1), 33–50.
- [16] Aldrich, D. P. (2012). *Building resilience: Social capital in post-disaster recovery*. University of Chicago Press.
- [17] Dahal, S., & Aryal, B. (2019). *Citizen participation and accountability in local governance*. Nepal Policy Studies Review, 3(2), 55–72.
- [18] United Nations Development Programme [UNDP]. (2020). *Comprehensive Disaster Risk Reduction Initiative in Nepal*. <https://www.undp.org>. <accessed on 6 June 2025>.
