Strengthening Inclusive Disaster Risk Governance for Climate Resilience in Asia (SIDRRA):

A case study of Nepal

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List of Acronyms

AI: Artificial Intelligence

ADRRN: Asian Disaster Risk Reduction Network

APCMDRR: Asia-Pacific Ministerial Conference on Disaster Risk Reduction

BHA: Bureau for Humanitarian Assistance

CANSA: Climate Action Network South Asia

CAP: Common Alerting Protocol

CC: Climate Change

CCA: Climate Change Adaptation

C&D Dialogue: Climate and Development Dialogue

CBDRM: Community Based Disaster Risk Reduction and Management

CDMC: Community Disaster Management Committee

CDMS: Center for Disaster Management Studies

CDO: Chief District Administration Officer

CSO: Civil Society Organisation

COP: Conference of the Parties

DDMC: District Disaster Management Committee

DEOC: District Emergency Operation Center

DHM: Department of Hydrology and Meteorology

DN: Duryog Nivaran

DPNet: Disaster Preparedness Network – Nepal

DRR: Disaster Risk Reduction

DRRM: Disaster Risk Reduction and Management

EC: Executive Committee

EOC: Emergency Operation Center

EWS: Early Warning System

FEDO: Feminist Dalit Organization

GEDSI: Gender Equality, Disability and Social Inclusion

GESI: Gender Equality and Social Inclusion

GLOF: Glacial Lake Outburst Flood

GPDRR: Global Platform for Disaster Risk Reduction

IBFI: Index Based Flood Insurance

IDI: In-Depth Interview

INGO: International Non-Government Organisation

IOM: International Organisation of Migration

IRC: International Rescue Committee

KII: Key Informant Interview

LDCRP: Local Disaster and Climate Resilience Plan

LDMC: Local Disaster Management Committee

LEOC: Local Emergency Operation Center

MHEWS: Multi-Hazard Early Warning System

MoFAGA: Ministry of Federal Affairs and General Administration

MoFE: Ministry of Forest and Environment

MoHA: Ministry of Home Affairs

MoWCSC: Ministry of Women, Children and Senior Citizens

NAP: National Adaptation Plan

NBS: Nature-Based Solutions

NCDRRM: National Council for Disaster Risk Reduction and Management

NDC: National Determined Contribution

NDRRMA: National Disaster Risk Reduction and Management Authority

List of Acronyms

NEOC: National Emergency Operation Center

NGO: Non-Government Organisation

NPDRR: National Platform for Disaster Risk Reduction

NSET: National Society for Earthquake Technology – Nepal

NYCA: Nepalese Youth for Climate Action

PDMC: Provincial Disaster Management Committee

PEOC: Provincial Emergency Operation Center

PWDs: People With Disabilities

SFDRR: Sendai Framework for Disaster Risk Reduction

SIDA: Swedish International Development Cooperation Agency

SIDRRA: Strengthening Inclusive Disaster Risk Governance for Climate Resilience in Asia

SRSP: Shock Responsive Social Protection

SWC: Social Welfare Council

UNDRR: United Nations Office for Disaster Risk Reduction

UNFCCC: United Nations Framework Convention on Climate Change

WHDRRP: Women in Humanitarian and Disaster Risk Reduction Platform

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1.Introduction

1.1 Background

Nepal is a country, which is prone to multiple hazards – including landslides, avalanches, debris flow, flash floods, glacial lake outburst floods, earthquakes, and lightning/thunderstorms – due to its fragile and complex geological setting, physical diversity, and climatic variation. Nepal's unique geography, characterised by its lowland Terai to the high Himalayas, makes it highly susceptible to a wide range of hazards. The frequency and intensity of natural disasters in the country are increasing (Vij et al., 2020; Wanner, 2022). Nepal is one of the world's most climate-vulnerable countries, ranking 10th globally on the Climate Risk Index. The key climate change (CC) hazards affecting the country are river flooding, heat exposure, drought, and landslides. While river floods and landslides were the most frequent hazards over the last 40 years, the incidents of drought and heat exposure are increasing in recent years (Kyaw Aung, et al., 2023; Bhatta K & Paharai S., 2021).

The vulnerability to disasters is compounded by a country's socio-economic, and geo-physical factors (Aryal S, 2015). Climate change, which has intensified the frequency and severity of disasters, poses significant risks to Nepal's agriculture and forestry, affecting a population heavily reliant on these sectors and challenging the current disaster risk reduction (DRR) and management practices of the country. Challenges include coordination among agencies, institutional gaps as well as insufficient human, technical, and financial resources (Dhungana et al., 2023).

Climate change adaptation (CCA) is increasingly understood as a polycentric governance issue, involving multiple centres of decision-making that operate independently but interactively (Ostrom, 2010). Unlike top-down approaches, polycentric governance allows for more adaptive and context-sensitive responses to complex global challenges (Pattberg et al., 2022). This approach is critical in addressing CC, as it encourages diverse actors – governmental, non-governmental, local, and international – to collaborate and co-produce solutions that are more effective in diverse contexts. By fostering collaboration and participation of different actors, polycentric governance can enhance the capacities of the actors, build resilience to complex DRR challenges and can lead to more effective and inclusive disaster management strategies (UNISDRR, 2015).

In the context of Nepal, the concept of bricolage - that describes the way actors creatively adapt to resource limitations and institutional gaps, using available tools, knowledge, formal and informal networks, and institution – can be used to address complex challenges like CC and DRR (Cleaver, 2002; Cleaver, 2017). Nepal's DRR and CCA efforts are shaped by a mix of formal and informal practices, which are driven by local needs and resources. As different actors, such as communities, non-governmental organisations (NGOs), and the government, interact, they integrate various strategies, often repurposing flexible institutional norms and traditions to address climate-related risks. This approach not only strengthens resilience but also ensures that the governance systems are fit for purpose and responsive to local contexts.

2. Key Indicators for Strengthening Inclusive Disaster Risk Governance for Climate Resilience

The following indicators are considered for defining inclusive disaster governance at all levels, including community networks. Indicators and sub-indicators are chosen based on Nepal's overall DRR and CCA context, institutional modality, policy landscape, accountability mechanism, DRR investment, and the status of the country's early warning system (EWS). The details of the indicators and sub-indicators are given below, which are the basis of the case study.

Policy and Legal Framework
- Existence of DRR and CC policies and plans at national, provincial and local levels.
- Degree of integration of DRR and CCA into sectoral policies and plans.
- Legal framework for DRR, building codes, and emergency response.

Institutional arrangement & Capacity
- Existence of institutions responding climate and DRR at all levels of governments
- Capacity of government agencies, and civil society organisations to understand and implement climate and DRR policies and plans.
- Existence of effective coordination mechanisms among different DRR stakeholders.
- Allocation of financial resources for climate and DRR action.

Community Participation and Accountability
- Community participation including marginalised people in decision-making processes of climate and DRR
- Mechanisms for accountability and transparency in the use of climate and DRR fund
- Existence of grievance redress mechanisms for affected communities

Risk Assessment
- Regular and comprehensive risk assessments conducted at national and local levels
- Identification of vulnerable communities and critical infrastructures

Early Warning Systems
- Existence of functional early warning systems for multiple hazards
- Effective communication channels for timely dissemination of early warnings to vulnerable communities
- Community capacity in understanding of early warning messages

Community Preparedness
- Existence of community-based disaster preparedness plans
- Regular mock drills and simulations to test preparedness plans
- Community awareness and education on disaster risks and mitigation measures

Social Protection and Safety Nets
- Existence of social protection mechanism to support vulnerable populations
- Insurance and risk transfer mechanisms to protect livelihoods

Monitoring, Evaluation, and Learning
- Regular monitoring and evaluation of climate and DRR initiatives
- Use of data and evidence to inform decision-making
- Learning from past experiences to improve future actions

3. The context of disaster risk governance and climate change in Nepal

Disaster risk governance in Nepal is guided by its Constitution and executed through the Disaster Risk Reduction and Management Act 2017 (DRRM Act 2017), the Local Government Operation Act (2017) and other legal and institutional arrangements at the three tiers of the government, i.e. federal, provincial and local levels. The constitutional provisions establish shared responsibility among the federal, provincial, and local levels, providing the legal foundation for institutionalising disaster risk management at all levels of government. The overarching National Disaster Risk Reduction Policy, 2018 and Disaster Risk Reduction National Strategic Plan of Action 2018-2030 are in line with Sendai Framework for DRR. These plans spell out the key priority actions and guide relevant stakeholders at all levels and development sectors towards achieving targets within the stipulated timeline. Following the promulgation of the Constitution of Nepal, 2015, the following acts, policies and strategies were endorsed in Nepal. These policies and strategies are becoming instrumental for strengthening disaster risk governance in Nepal.

Based on DRRM Act 2017, several institutional arrangements have been envisioned at all levels of governments. The DRRM National Council, is the apex disaster risk management body, which is chaired by the Prime Minister. The council provides strategic direction and approves disaster related policies and formulates strategies. The body's Executive Committee (EC) looks after operational affairs including guidelines, plans and executive decisions and deliveries related to DRRM. The EC is chaired by the Home Minister. The EC coordinates with line ministries for the formulation of DRRM policies and strategies. The National Disaster Risk Reduction and Management Authority (NDRRMA) is the secretariat to both the National Council and the EC. At the federal level, NDRRMA and the National Emergency Operation Centre (NEOC) within the Ministry of Home Affairs (MoHA), are key institutions involved in DRR and management.

Key legislations endorsed by the government of Nepal for effective Disaster Risk Reduction governance

Types Legal documents	Name of Legal Documents
Acts	Disaster Risk Reduction Management Act 2017 Local Government Operation Act 2017 The Environment Protection Act 2019
Policies	National Disaster Risk Reduction Policy 2018 Climate Change Policy 2019
Strategic Plan	Disaster Risk Reduction National Strategic Plan of Action 2018-2030 GEDSI in DRR Strategic Plan of Action 2024 Local Disaster and Climate Resilience Plan (LDCRP), 2021 The National Adaptation Plan - NAP, (2021-2050) National Strategic Action Plan for Search and Rescue 2013
Guidelines	Temporary Shelter Guideline 2024 Operational Guidelines for National Disaster Risk Reduction Platform, 2020 Disaster Preparedness and Response Guideline 2019 Disaster Management and Climate Change Adaptation Learning Center (Operation and Management) Direction 2021 Initial Rapid Assessment (IRA) of Disaster Auditorial Guideline 2021 National Disaster Response Team Local Disaster Risk Management Planning Guideline 2017
Framework	Environment-friendly Local Governance Framework, 2013 National Disaster Response Framework, 2013 Post Disaster Recovery Framework, 2016 The National Framework for Local Adaptation Plans for Action (LAPA), 2019 Local Disaster and Climate Resilience Framework, 2024

The NDRRMA is tasked with overseeing both DRR as well as post-disaster recovery and reconstruction. It leads the implementation of DRR policies and strategies and coordinates the post-disaster response efforts, while the NEOC is responsible for post-disaster relief and response. However, there is a lack of clarity on roles and responsibilities between the NDRRMA and the local and provincial government authorities. There is no clear mandate to provide guidance to them. This limited connectivity hinders the effectiveness of DRR efforts on the ground. In such cases, civil society networks like Disaster Preparedness Network – Nepal (DPNet) can play a crucial role in bridging the gaps.

The DRRM Act of 2017 has provided clear roles, responsibilities, and structures for the provincial emergency operation centers (PEOCs), housed within the provincial ministries of all seven provinces. Additionally, the act establishes district emergency operation centers (DEOCs) in all 77 districts and local emergency operation centers (LEOCs) at the local government level nationwide, totalling 753. The major roles of these sub-national emergency operation centres are to provide emergency communication, preparedness action, forecast based early action, and post-disaster relief and response. These institutional arrangements help to make all the tiers of government accountable towards DRR and resilience.

The National Platform for Disaster Risk Reduction (NPDRR) has been operational since 2008, with its functions further institutionalized under the leadership of NDRRMA since 2019. NPDRR has been playing a crucial role to enhance coordination amongst stakeholders through nine different thematic committees with diverse expertise considering the whole of society approach and has been fostering dialogues for achieving pathways of resilience set in the DRRM policies and strategies.

As per the Local Government Operation Act 2017 and DRRM Act 2017, each local government has their own Local Disaster Management Committee (LDMC) chaired by the head of the local government. Similarly, at the district level, the District Disaster Management Committee (DDMC) is chaired by the Chief District Administration Officer (CDO), and at the provincial level, Provincial Disaster Management Committee (PDMC) is chaired by the provincial Ministry of Internal Affairs and Law.

The Ministry of Forests and Environment (MoFE) is the focal ministry for climate change adaptation. Under the Ministry of Federal Affairs and General Administration (MoFAGA), a DRRM section looks at climate and DRRM issues, both at federal and local level. The ministry is the nodal agency of all local governments, and helps in coordination, policy harmonisation and related work as a focal point for the Community Based Disaster Risk Reduction and Management (CBDRM) platform. It also monitors the progress made in the development of Local Disaster and Climate Resilience Plan (LDCRP) which is an approach for the localisation of DRRM efforts.

However, despite the strong legal and institutional mechanism provisioned in the above legal instruments, and the roles and responsibilities defined by various institutions involved in DRR and DRRM, Nepal has been suffering from the growing impacts of disasters on lives and livelihoods, critical infrastructure, agriculture and ecosystem. Nepal's DRRM has been advancing with practical knowledge and the experience of dealing with multiple disaster events caused by multiple hazards and working with multiple stakeholders including a wide range of networks. While significant progress has been made in enacting laws and establishing institutions for preparedness and risk reduction, there are still shortcomings in effectively implementing these measures. Challenges include coordination among agencies, as well as insufficient human, technical, and financial resources (Dhungana et al., 2023). Factors such as demographics, migration, and urbanisation also influence disaster management effectiveness.

While climate and DRR actions share the common goal of building the resilience of communities and dealing with exposure, vulnerability, and capacity, the related policies, regulatory framework, and planning guidelines are different under different government institutions. Despite the similar approaches and interventions at the local level, the agencies involved in climate and DRR are working in silos due to the lack of coordination, and synergy, and a clear legal mandate,. Climate change and DRR are often viewed as separate and distinct from development activities, leading to shortages of funds and human resources and ultimately contributing to mal-development.

4. Community-Based Disaster Risk Management in Nepal

One of the major strengths of Nepal's DRR landscape is the involvement of various stakeholders ranging from community level to policy level. By involving communities in the planning process, CBDRM ensures that disaster management strategies are practical and effective. The government of Nepal has recognised the Community Based Disaster Risk Reduction approach in the form of the CBDRM platform, chaired by the MoFAGA. CBDRM is a crucial strategy for enhancing local resilience, especially in remote areas. This approach recognises the invaluable knowledge and experience that local communities possess in understanding their specific hazards and vulnerabilities. At the grassroots level in the country, the Community Disaster Management Committees (CDMCs) play a crucial role in risk assessment, risk communication, search and rescue, and providing first aid to people injured during disasters.

Other efforts include activities such as development of community-based early warning systems , and community-based preparedness plans. Risk mapping or assessment involves communities identifying hazards and vulnerabilities in their areas, which helps in developing targeted risk reduction measures.

Community-based preparedness plans are developed with inputs from the members of CDMCs, ensuring that the plans are tailored to the specific needs and capacities of the community. These plans often include evacuation procedures, emergency contact lists, and resource allocation strategies. The CDMCs also plays a joint role with the local governments in bottom-up risk informed planning.

According to the chairperson of the National CDMC, over 700 CDMCs had been established nationwide as of June 2024. These CDMCs play a vital role in micro-governance for DRR. CDMCs are often projectized and their functionality often depends on donor-funded projects, limiting their long-term sustainability. Numerous CDMCs across the country are supported by DPNet member organisations, including Mercy Corps, Practical Action, and DanChurch Aid. The CDMC members discuss potential future disaster risks, prepare response plan and act upon them during disasters .

CBDRM fosters strong social networks and cooperation within communities, enhancing resilience and facilitating effective disaster responses. Engaging communities in disaster risk management also helps build trust and empowers local populations to take ownership of their own safety and resilience.

5. Civil society organisations and their networking in Nepal

The emergence of civil society networks in DRR in Nepal is a significant development and is based on the Social Welfare Act 1992. After the restoration of democracy in 1990 and the introduction of the Social Welfare Act, a wide range of civil society actors are operating in Nepal. The restoration of democracy in 1990 marked a turning point for the establishment of civil society organisations (CSOs) in Nepal. With the lifting of political restrictions, a plethora of CSOs emerged to address a wide range of social, economic, and political issues. These networks have played a crucial role in raising awareness, advocating for policy changes, rural development, education on various contested issues and implementing grassroots initiatives to build resilience in communities. As per the records of Social Welfare Council (SWC) of Nepal (as of April 2023), 55,576 CSOs are registered with the SWC - however, registration with the SWC is not mandatory. Many CSOs are registered with District Administration Offices, and the total number of registered CSOs may vary by province. These CSOs play a crucial role in advocating for human rights, promoting good governance, and mobilizing citizens for social change. The networking and collaboration among these organisations evolved along with the donor driven development approaches. The networks' loosely coupled structures with flexible boundaries, often lack formal hierarchies and rely on informal relationships and trust. Networks normally operate using a decentralised governance approach with shared decision-making.

6. Methodology

The study employed a qualitative research methodology to explore DRR networks and their roles in strengthening and amplifying the voices of local communities, especially those among oppressed, marginalised, and at-risk populations in Nepal. The study focused on the following research questions:

1. *How do networks strengthen and amplify community voices and concerns in disaster risk reduction efforts?*
2. *How does this translate into meaningful change on the ground?*
3. *What is the added value of networks vis-à-vis other modalities, and how can they improve in better serving local communities?*
4. *What are the best and good practices for integrating gender and social inclusion (GESI) and protection mechanisms in disaster risk governance?*

A comprehensive literature review was conducted – which included policy documents related to DRR and CCA in Nepal, journal articles and grey literature – to establish a theoretical foundation and understand the existing knowledge on DRR governance. Keywords for online searches for literatures included: inclusive DRR in Nepal, role of DRR networks, DRR network analysis, DRR governance, community-based DRR.

The literature review was followed by the consultations at national, local, network and community levels. Six key information interviews (KIIs) were conducted; five at national level and one with the Mayor of the Manthali Municipality. The respondents for the national level KIIs were selected through purposive sampling based on their involvement in the DRR and CC sectors. Those KIIs were crucial to gain insights into DRR governance and to identify key networks operating in Nepal's DRR sector (see annex for the list of networks). To gain insights into local disaster risk governance mechanisms, using a convenience sampling method, a KII was conducted with the Mayor of the Manthali Municipality in Ramechhap District, Bagmati Province. Subsequently, five in-depth interviews (IDIs) were conducted with representatives from the four selected networks to gain a deeper understanding of their roles, experiences, and perspectives in relation to the research questions. These interviews provided valuable insights into the networks' operations, challenges, and contributions to strengthening inclusive DRR in the country. Respondents for the IDIs were selected using a combination of purposive and snowball sampling methods. In addition, to collect the community perceptions, CDMC members located at the Karnali River basin were interviewed. These CDMC members were chosen based on the convenience sampling method. A thematic analysis approach was employed to analyse the qualitative data.

For this study, networks chosen for their diversity in scope and level of influence on climate and DRR, included:

- **Disaster Preparedness Network Nepal (DPNet):** A national network that serves as a platform for information sharing, advocacy, and capacity building on DRR.

- **Climate and development (C&D) Dialogue:** A network of NGOs and INGOs working on CC and development issues, with a focus on community-based approaches.

- **Nepalese Youth for Climate Action (NYCA):** A youth-led network focused on climate action, advocacy, and empowering young people to participate in DRR efforts, and

- **Women in Humanitarian and Disaster Risk Reduction Platform (WHDRRP):** A women-led network advocating for gender-sensitive policies and practices in DRR.

Summary of selected networks

DPNet Nepal	Climate and Development Dialogue	NYCA	WHDRRP
Establishment			
1996, Registered	2017, Loose network	2008, Loose Network	2019, Loose Network
Members			
181 Member Organisations	12 Member organisation	400+ members - youth	100 members
National affiliation			
MoHA, NDRRMANPDRR, MoFAGA	MoFE, MoFAGA	MoFEMoWCSC	NDRRMA /MoFAGA
Regional and International Networks affiliation			
UNDRR-GPDRR /APMCDRR International Training-DRRM-SIDA, Sphere Geneva, Asian Disaster Risk Reduction Network (ADRRN) GNDR	UNFCCC-COPCANSAGNDR	UNFCCC-COPCANSA Nepal	UNDRR-GPDRR/APMCDRR UN Women
Involvement/ engagements and action			
Pre-, and post-disaster series of discussions, issue based discussions on various disaster issues, and post-disaster recovery	Policy discussions on climate action,Local issues at national platform via annual national conference	Campaign, awareness-raising at the community level on climate action, Pre-COP and Post-COP-sharing-bringing youth perspective in policy, Youth voices at national and sub-national via conferences, and capacity building action	Policy Dialogue, social media campaign on women's issues, Internation deliberation on women and DRR
Policy influence			
Mostly DRR related all DRRM act 2017, DRRM policy 2018, Provincial policies and strategies, GEDSI Strategic Action Plan 2024. Position paper for APCMDRR and GPDRR	NDC2, 16th Periodic plan, Climate policy 2019	NDC2, NAP, climate policy 2019	GEDSI strategic action plan 2024

7. Results and Discussions

Effective DRR and climate resilience require a collective, multi-stakeholder, and multi-sectoral engagement at both community and policy levels, fostering accountability towards affected populations. Communities possess invaluable knowledge and expertise on how to navigate and mitigate the impacts of disaster events (Abedin & Shaw, 2015), while decision-makers need that evidence to make evidence-based policies and strategies. Networks play a vital role in DRR governance by bridging the gap between the community and decision-makers, enhancing collaboration, facilitating knowledge sharing, and amplifying community voices into decision-making system. During the time of a disasters, networks serve as a crucial support system, connecting communities and resources. The networks referred to here consists of groups of NGOs, and member based DRR networks, which have emerged as key actors in addressing Nepal's pressing DRR and climate risk challenges. Their unique blend of grassroots engagement, expertise, and advocacy has proven invaluable in enhancing resilience and mitigating the impacts of natural disasters and CC. The forthcoming sections systematically address the research questions, based on the findings of the research.

1.How do networks strengthen and amplify community voices and concerns?

Networks play a crucial role in navigating the complex landscape of DRR governance in Nepal. They function as bridges between local communities, DRR stakeholders, and government agencies. This bridging role is essential in a context like Nepal, where power dynamics and information gaps can hinder effective community participation in DRR.

Networking plays a vital role in this governance framework by enhancing collaboration, facilitating knowledge sharing, collaboration, collective action, amplifying community voices, and capacity-building among diverse stakeholders, including government agencies, CSOs, international organisations, and communities. This analysis revealed five key themes - providing platforms promoting inclusivity, building capacity, fostering collaboration and policy advocacy, that networks engage in for DRR efforts:

Providing platforms
Networks, significantly, provide platforms for marginalised communities to amplify their voices, concerns and needs in the DRR process. Such platforms are in the form of workshops, series of discussions, campaigns and training, etc. For instance, DPNet, being a secretariat of NPDRR, connects policymakers with grassroots organisations, ensuring that local concerns are represented in national disaster management policies through different discussions. This network helps to address community needs and concerns, especially during and after disasters. It organises a series of post-disaster discussions and ways of resilient recovery, bringing a wide range of expertise to the forum. Such discussions at the central level, amplifies the voices of local communities at policy level and fosters accountability of the decision-makers. DPNet also amplifies the voices of community people through a virtual DRR platform and social media (such as google group or WhatsApp group).

By utilising these platforms, stakeholders can engage in open and transparent dialogue, build trust, and contribute to develop effective DRR strategies. This aligns with wider research that highlights the importance of networks in facilitating bottom-up communication and empowering marginalised voices (Adger et al., 2010; Agrawal & Gibson, 1999).

On the other hand, different campaigns, series of discussions, awareness-raising activities at the community level, the biannual national conference of NYCA focusing on the youth, as well as the C&D Dialogue's national annual conference serves as a forum for stakeholders, including grassroots activists, to raise key concerns, knowledge sharing and propose solutions for national climate policies, echoing the role of networks in fostering participatory governance (Pattberg et al., 2022; Tosun & Schoenefeld, 2017). These platforms are crucial for fostering collaboration, networking, and the sharing of knowledge, resources, and best practices. For instance, during the preparation of the GEDSI Strategic Action Plan 2024, DPNet and WHDRRP collaborated in the drafting and consultative process, as they possess the necessary expertise.
By sharing knowledge and expertise, these platforms also provide a space for influencing policy and contributing to community voices and concerns. Network members, with their in-depth understanding of community issues gained through direct engagement, are well-positioned to advocate for these perspectives. This demonstrates how knowledge sharing and learning among different actors within and between networks can strengthen DRR efforts.

Promoting inclusivity
Networks champion diversity and inclusion within the community and advocate for gender-sensitive policies in DRR. WHDRRP, for instance, advocates for women's leadership in DRR and provides a platform for women and marginalised communities to participate in decision-making processes. By highlighting the unique vulnerabilities faced by these communities in disaster situations, WHDRRP advocates for inclusive and equitable policies which ensures that women's voices are integrated into governance structures. It also champions diversity and inclusion within the community. Research question 4, has explored the comprehensive understanding of how inclusivity is addressed by the selected networks.

Building capacity
Networks play a crucial role in building the capacity of communities and local actors on climate and DRR. They provide valuable capacity-building opportunities for local communities through workshops, discussions, campaigns, and training programs. For instance, DPNet, a key DRR network in Nepal, offers training, workshops, and online resources to strengthen community capacity and resilience. It organises a series of virtual events bringing together network members from across Nepal, contributing to raising awareness about the concerns and perspectives of a wide range of stakeholders. This helps to identify capacity-building needs, strengthen social networks, and connect network members with policymakers. Similarly, NYCA builds the capacity of young people through campaigns, discussions, and training programmes on climate resilience. It has also played a key role in documenting and sharing the experiences and perspectives of young people on climate action.

This has significantly contributed to raising awareness about the challenges and opportunities facing young people in the country and to inform policy decisions. Such capacity-building functions are crucial for enhancing community resilience and adaptive capacity, as highlighted by various studies on community-based DRR (Berkes & Ross, 2012; Mercer et al., 2010).

Networks not only build capacities of community people, but also of government agencies at all levels. For instance, the National Society for Earthquake Technology – Nepal (NSET), a member of DPNet, played a leading role in localising DRR through the organisation of 702 DRR training programmes for local governments under the 'Promoting Action for Disaster Risk Governance and Working to Achieve Preparedness for Risk Reduction through Technical Assistance in Nepal (PARIWARTAN)' project in 2022. This project was funded by the USAID's Bureau for Humanitarian Assistance (BHA) and was managed by the International Organization of Migration (IOM). This training aimed to build the capacity of local government on DRRM, DRRM policies and strategies including their roles and responsibilities to better assist DRR governance at the local level.

Fostering collaboration and synergy

Networks enhance collaboration among government entities, NGOs, and community organisations, fostering a unified approach to disaster risk governance. DPNet's collaboration with its 181 member organisations facilitates a continuous feedback loop, enabling a dynamic response to emerging community issues, and advocating for necessary changes in policies and practices. Being a secretariat of NPDRR, DPNet is mandated to work in collaboration, coordination, and networking with the local, provincial, and national level stakeholders.

DPNet collaborates with its member organisations to develop joint position papers and official statements for the Global Platform for Disaster Risk Reduction (GPDRR) and the Asia-Pacific Ministerial Conference on Disaster Risk Reduction (APMCDRR). These statements represent the collective voices of stakeholders, ensuring that community perspectives are reflected at both regional and international levels. This collaborative approach not only strengthens Nepal's position on these global platforms but also fosters a spirit of synergy among local institutions, enabling them to work together towards shared goals. DPNet's emphasis on synergy allows for the more efficient use of resources, reduces duplication of efforts, and enhances the overall impact of DRR initiatives across the country.

Likewise, NYCA, since its establishment in 2008, has been contributing to climate resilience for youths in collaboration with NGOs and INGOs. For instance, the recent ninth biannual conference was organised in collaboration with INGOs & NGOs and MoFE. Similarly, WHDRRP prioritises collaboration and solidarity in disaster response, and pooling resources, expertise, and networks to mount more effective, inclusive and comprehensive disaster response efforts.

Furthermore, the C&D Dialogue, with its diverse membership of NGOs and INGOs, exemplifies the collaborative approach, bringing together expertise on both social justice and technical innovation in CCA and DRR which is widely recognised as a crucial need for just actions against CC. Such collaborative function of networks has been widely documented in DRR and CCA literature, emphasising the importance of cross-sectoral partnerships for effective disaster risk management (Kelman, 2015).

Policy advocacy and inspiration

The networked relationships between state and non-state actors showcases a polycentric governance approach in Nepal. Formal entities like government agencies and informal groups, including community organisations and NGOs, which collaborate to shape the discourse on DRR and CC. These partnerships enhance the effectiveness of policies and interventions by leveraging local knowledge and global expertise. Different actors have proven to play an indirect but consequential role in these networks, particularly in amplifying civil society voices (Foo, 2018; Marshall & Staeheli, 2015). By bringing grassroot concerns to the forefront, they ensure that different networks are responsive to local needs and serve as intermediaries in the policy-making process. Networks have been instrumental in influencing policy changes and contributing to policy-making processes related to DRR and CCA (Jones et al., 2014). For instance, DPNet's advocacy efforts have contributed to the inclusion of community perspectives in key CCA and DRR policies, acts, and strategic action plans, such as the DRR Policy 2018, the DRR Strategic Action Plan 2018-2030, and provincial DRRM policies and strategic action plans.

By networking with its member organisations, DPNet consistently advocates for and upscales best practices at the policy level. For instance, the organisation has advocated for Anticipatory Action Plans and EWS Strategic Action Plans (draft) at both the national and provincial levels. DPNet collects information about needs and gaps from its member organisations through national sharing workshops and learning sharing meetings. These meetings often involve high-level government officials. By doing so, policymakers gain insights into the challenges, gaps, and upscaling potential of grassroots practices related to EWS, Nature-Based Solutions (NBS), Eco-DRR, and risk communication protocols and channels. These practices are fundamentally community centric. Due to its extensive engagement at the national and provincial policy levels, both through its network members and its own initiatives, DPNet has played a pivotal role in drafting the EWS Strategic Action Plan and Shock Responsive Social Protection Standards.

Likewise, NYCA's advocacy efforts contributed to the inclusion of youth priorities in Nepal's Nationally Determined Contributions (NDCs) and National Adaptation Plan (NAP). Its involvement in the 3rd NDC together with the UNFCCC-COP 29 positioning preparation, aims to influence government policies and decision-making to promote youth-friendly climate initiatives. As an example of their engagement in national policy, NYCA's efforts to include youth priorities in NDCs and NAP demonstrated the power of youth engagement in climate policy. Regarding the policy influence, the NYCA representative remembers the following:

"Through 15+ discussion sessions involving 1,000 youth, NYCA ensured that youth voices were included in Nepal's 2nd NDC. The 1st NDC had initially overlooked youth, but NYCA's advocacy contributed to prioritising youth leadership, participation, and negotiation capacity in the 2nd NDC, both nationally and internationally. This represents a significant step towards youth-centred policy and the process of engaging youth in various policy development, empowered them to feel heard and valued."

By prioritising youth leadership, participation, and negotiation capacity, NYCA ensured that youth concerns were reflected in national climate policies. About the need of policy influences, the NYCA representative further added that,

"Driven by our deep concern for the future, we are committed to take urgent climate action to ensure a sustainable and equitable future for both present and future generations."

NYCA's engagement with youth in policy formulation highlights that young people are not only the passive recipients of policy but also active participants, capable of driving change.

Similarly, C&D Dialogue's advocacy was also one of the reasons for redrafting Nepal's existing 16th Five Year Plan to include a previously absent chapter on climate action. This highlights the role of networks in advocating for policy change and holding governments accountable, as demonstrated in research on climate governance and advocacy networks (Pattberg et al., 2022, Jones et al., 2014).

In summary, with external financial support from INGOs/donor, networks play a crucial role in strengthening DRR governance in Nepal by providing platforms in which communities can amplify their voices and concerns, sharing knowledge, promoting inclusivity, building capacity of the vulnerable people, fostering collaboration among the DRR stakeholders and actively contributing to policy development. By acting as a bridge between policymakers, NGOs, and communities, networks ensure that DRR strategies are inclusive, well-coordinated, and responsive to the needs of vulnerable people.

Networks facilitate the amplifying of community voices at regional and international levels, in addition to national level. For instance, DPNet facilitates in the preparation of position papers for the Asia-Pacific Conference on Disaster Risk Reduction (APCMDRR) and GPDRR, inviting all the members of the network. It ensures that the position papers are GEDSI informed. Similarly, the NYCA has networked with the Climate Action Network South Asia (CANSA) at the South Asia regional level and the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP) at the international level to amplify the voices of youth.

2. How does network translate Disaster Risk Reduction action into meaningful change?

The engagement of networks in DRR translates into meaningful change on the ground through various initiatives, including the facilitation of community empowerment, advocating for community centric policies, and implementing practical solutions.

Community empowerment
Empowering communities to participate in all stages of DRR, from planning to evaluation, is essential. This includes involving them in decision-making, resource allocation, and programme design. Capacity-building through training and education on disaster risk assessment, early warning systems, emergency preparedness, and response measures is crucial to enhance community resilience.

Additionally, integrating indigenous knowledge and traditional practices into DRR strategies can further strengthen community resilience and ensure culturally appropriate and sustainable solutions.

Networks empower communities by providing them with the knowledge, skills, and platforms to participate in DRR decision-making processes. For instance, the WHDRRP focuses on building the capacity of individuals and agencies dedicated to DRR and humanitarian action, especially women (Gurung & Pandey, 2021). Such empowerment enables communities to take ownership of their own safety and resilience. Likewise, Practical Action - a member organisation of DPNet - has collaborated with 57 CDMCs to enhance their resilience through EWSs. By implementing the activity, CDMCs have strengthened community-centric EWS, response capabilities, and held local governments accountable to disaster-affected communities. Regarding the empowerment of the community, the secretary of the CDMC of Ban Gaun, Tikapur Municipality, Kailali District stated that, "*The training, and mock drill and simulation exercises provided during the installation of EWS have significantly enhanced our knowledge and empowered us to prepare for disasters. The simulation exercises become useful during the time of flood.*"

Such training programmes have equipped the vulnerable population with the necessary knowledge and skills to understand disaster risks, identify vulnerabilities, and develop appropriate response mechanisms. The hands-on experience has helped them to respond effectively to real-time disaster situations.

Developing community centric DRR policies

By engaging with policymakers and other stakeholders, networks advocate for policy changes that reflect the needs and concerns of local communities. Thus, these networks can influence the development and implementation of DRR policies and programmes that are centred around the community. For example, DPNet's advocacy and lobbying efforts are instrumental in translating community concerns into meaningful changes at the grassroot level. By continuously engaging with communities and advocating for their needs, DPNet helps ensure that policies are not only well-informed but also responsive to the actual challenges faced by those at-risk. This process often leads to the development of targeted interventions that addresses the specific vulnerabilities, thus fostering a safer and more resilient community environment. Moreover, DPNet's advocacy extends to ensuring that the voices of marginalised groups are included in decision-making processes, hence promoting more inclusive disaster risk governance. DPNet's advocacy efforts often manifest in the form of improved resource allocation, enhanced community preparedness, and more effective response strategies that are tailored to the unique needs of diverse communities. Regarding DPNet's engagement in community centric policy, the chair of DPNet elaborated,

"*In response to the Bajhang and Jajarkot earthquakes 2023, DPNet produced detailed reports from day one of earthquake, starting with daily updates, followed by quad-day, weekly and monthly reports which helped bring important information on the ground realities, highlighting the gaps in response and recovery efforts. The government and development partners have used these insights to identify gaps and plan their activities more effectively, ensuring better targeted post-disaster actions that are aligned with the actual needs of the affected communities.*"

This demonstrates that by actively engaging with communities and advocating for their needs, networks can play a crucial role in shaping DRR policies that are responsive to the specific needs of local populations, leading to a more effective and equitable disaster management.

Mainstreaming practical solutions

Networks play a pivotal role in mainstreaming practical solutions for DRR to address the vulnerabilities of communities. For example, Practical Action, a member of the DPNet, has implemented community-based EWS and Index-Based Flood Insurance (IBFI) activities, contributing to saving lives and livelihoods of the community people in the disaster-prone area of Karnali River basin. The innovative IBFI is a groundbreaking approach to disaster risk management, implemented in partnership with Shikhar Insurance Company (a private sector company), covering 5 local governments in the flood-prone lower Karnali region of Nepal.

The Lower Karnali region of Nepal, a fertile agricultural belt, is highly vulnerable to flooding due to its proximity to the Karnali River and its tributaries. These floods can cause significant economic loss and disrupt livelihoods. Traditional insurance approaches often prove inadequate in such scenarios due to challenges in assessing individual losses and timely claims processing. Parametric insurance, such as IBFI, offers a promising solution. It triggers payouts based on a predefined index, rather than individual loss assessments. This index, typically a publicly available measurement (e.g., river discharge, rainfall), correlates with flood severity. This approach simplifies the claims process, by reducing delays and administrative costs. By providing timely financial support, IBFI empowers communities to recover from flood-related losses, ensuring their resilience.

Collaboration with the private sector is indeed vital for effective DRR, as demonstrated by the successful implementation of the innovative IBFI. By partnering with Shikhar Insurance Company, a private sector player, the initiative successfully addressed the unique needs of vulnerable communities. This collaboration highlights the potential of public-private partnerships in developing innovative solutions to address complex challenges like DRR and build more resilient communities.

This demonstrates the tangible impact of networks in implementing practical DRR solutions, as evidenced by studies on community-based adaptation and disaster preparedness (Ensor & Berger, 2009; Schipper et al., 2014). Practical Action's success in EWS is not only securing livelihoods and saving lives, but its membership in the DPNet plays a critical role in scaling such successes to the national level.

Likewise, as part of its involvement with DPNet, NSET has developed and demonstrated an earthquake safety model for the housing sector in the form of 'Baliyo Ghar' in 2015. This model has been showcased on various platforms both nationally and internationally. The purpose of this model is to raise awareness about earthquake risk and provide guidance on measures that can be taken to reduce risk at both the community and household levels. By understanding earthquake risk and implementing appropriate measures, communities and individuals can better protect themselves and their property from potential damage during earthquakes.

Hence, networks are integral components of the overall DRRM ecosystem, contributing to resilience across various stages, from pre-disaster preparedness to post-disaster recovery. They play a crucial role in advocating for policy change at the grassroots level and bringing community voices and concerns to the forefront of policy discussions.

3. What is the added value of networks vis-à-vis other modalities, and how can they improve in better serving local communities?

Added value of networks in DRR governance

Networks have the ability to bring together diverse stakeholders and foster collaboration and interactions between and among them at different scale and level ranges from community to national as well as international level. Networks offer added value by amplifying local voices, integrating traditional and scientific knowledge, and fostering community participation to drive meaningful DRR actions. For instance, networks like DPNet, facilitate the aggregation and amplification of voices from multiple stakeholders, creating a powerful collective voice that can influence policy at various levels. DPNet brings together the collective voices and diverse knowledge of its member organisations, which includes experts and local communities. This combined expertise increases the likelihood of effectively addressing critical issues.

For instance, in response to the Department of Hydrology and Meteorology's (DHM) forecast of above-normal rainfall during the 2024 monsoon, DPNet organised a series of discussions across the seven provinces, engaging local DRR stakeholders including government representatives, civil society, and community leaders to inform them about the potential risks associated with heavy rainfall. DPNet also mobilised experts from its various member organisations to contribute to these discussions. As forecasted, when heavy to very heavy rainfall occurred in late monsoon (September 27-28) 2024, the DPNet organised consultations from the affected provinces and submitted recommendations to make effective post-disaster relief and recovery. The network subsequently submitted those recommendations to the NDRRMA, which was ultimately accepted and the executive chief of NDRRMA pledged to review the recommendations for its integration into the national DRR strategies in enhancing the country's resilience to disasters (DPNet 2024). This collective voice contributes to ensuring that local concerns are not overlooked, enhances cooperation, values diverse knowledge, and encourages collaboration and coordination with various stakeholders, including government agencies and community organisations. Such an action from a network jointly with its member organisation helps to foster accountability of the right holders. Similarly, through nationwide discussions involving over 1,000 young people, NYCA successfully advocated for youth inclusion in the 2nd NDC, highlighting the impact of collective action of the youth network.

Furthermore, networks undertake a participatory DRR initiative, by engaging the local community people and integrating the indigenous knowledge of local communities with the scientific knowledge. Engaging and involving the community is crucial to understanding local vulnerabilities, capacities, and priorities for effective disaster management. Community participation also helps to foster trust between communities and authorities, while raising awareness about disaster risks and preparedness measures (Lee, 2016).

For instance, members of C&D Dialogue and DPNet uses scientific knowledge at local level and bundles it with traditional and indigenous knowledge of local community people to foster response capacity against disaster. In the Karnali River basin, a community-centric flood EWS was established by engaging community people in all four pillars (risk knowledge, monitoring, forecasting and warning, dissemination and communication and response capability) of EWS. Regarding the engagement of community people, the CDC member of Tikapur municipality stated that,

"During the installation of the EWS, we actively participated in the community risk mapping and disaster response training. These training sessions emphasised prioritising vulnerable groups such as the elderly, children, pregnant women, lactating mothers, and people with disabilities during emergencies. Since the establishment of the EWS, we have been receiving timely flood alerts from the DHM directly to our mobile phones. We disseminate this crucial information to other community members who may not have access to such alerts. This EWS has proven to be invaluable in saving lives and protecting our valuable assets. The project's provision of shelter houses has further enhanced our community's resilience. These shelters offer crucial protection during heavy floods, especially when we receive warnings from the DHM."

Such participatory approaches that engage local communities and integrate their Indigenous knowledge with scientific expertise contribute significantly to strengthening DRR efforts including exposure and vulnerability which adheres with Gaillard and Mercer, 2012.

How can they improve in better serving local communities?
To address the specific needs of vulnerable communities, networks can work in innovation, technology such as impact based EWS, Artificial Intelligence (AI) in EWS and risk communication, localisation of DRR efforts, upscaling best practices in the hazard exposed communities as well as disaster affected communities. Networks can also foster accountability and governance systems, making local institutions accountable towards the needs and aspiration of disaster affected communities. A wide range of available networks in the country can significantly improve their service to local communities by focusing on the technological innovation, strengthening local governance and building partnership with private sectors.

Technological innovation
While flood EWS have significantly improved in the country, reducing loss of life and property damage, other hazards like heat waves, cold waves, landslides, and Glacial Lake Outburst Floods (GLOFs) continue to pose significant threats to lives and livelihoods. As the death toll and incidents of these hazards are on rise, the country needs to move from single hazard based EWS to multi-hazards based EWS, aligning with the UN DRR objective of EWS4ALL by 2027. According to the WMO, providing EWS with at least 24 hours of lead time can reduce the loss of life and livelihood by 30%. Strengthening multi-hazard EWS and implementing risk-informed early-actions are crucial for saving lives and protecting livelihoods. These systems play a vital role in anticipating, mitigating, and responding to disasters. Therefore, network like DPNet can lead the process jointly with other DRR actors to meet the international objectives announced in UNFCCC COP -27. Further efforts and resources are needed in terms of predicting climatic phenomena more precisely, timely, specifically and for a longer span of time in order to get the degree of hazard risk on community and ecosystem.

Artificial Intelligence (AI)/Machine Learning based technological advancements can revolutionise DRR at the local level. Real-time monitoring, AI-generated forecasting, and the rapid dissemination of warnings through digital platforms such as through Common Alerting Protocol (CAP) can enhance the effectiveness of EWS and tailored risk communication to affected people. Social media, mobile apps, and citizen science empower communities to participate in DRR efforts and raise awareness. Using digital tools, DRR networks can revolutionise emergency response and coordination, facilitating communication, and optimising resource allocation. Post-disaster recovery and reconstruction can be significantly enhanced by technological innovations like remote damage assessment and digital financial management. Remote sensing technologies like satellite imagery and drones enable rapid damage assessment and help prioritise recovery efforts. Digital financial management systems streamline the disbursement of relief funds, ensuring transparency and efficiency. Additionally, online platforms and mobile apps facilitate communication between stakeholders, coordinate reconstruction efforts, and empower communities to participate in rebuilding their lives. Parametric insurance is one of the risk transfer mechanisms that protects poor and vulnerable farmers through insurance schemes, and needs to be scaled up for wider coverage.

Strengthening local governance

Though the networks play a vital role in the localisation of DRR policies and plans, the country is still in the process of formulating additional legal measures as it advances the federal system as per its new constitutions of 2015. Several new policies and strategies are endorsed at the federal level, which need localisation to meet the needs of grassroots people. For example, the recently endorsed GEDSI Strategic Action Plan 2024 needs to be integrated into local and provincial policies and plans as a part of localisation. The other 'in progress' policies and frameworks such as the Shock Responsive Social Protection (SRSP) standard and Multi Hazard Early Warning System (MHEWS) strategic action plan needs to be linked with local governments. This presents an opportunity for networks to actively participate in localising these legal measures in order to achieve impact at scale. Effective coordination between local governments, NGOs, and community-based organisations is essential for efficient resource allocation, synergy in action and implementation.

Building partnerships with private sectors

DRR networks can leverage diverse expertise, resources, and innovative solutions, by collaborating with government agencies, NGOs, international organisations and the private sector. The role of the private sector in disaster management in Nepal has gained recognition, especially following the 2015 earthquake. This devastating event highlighted the importance of private sector involvement in disaster preparedness, response, and recovery. While the government and humanitarian organisations play vital roles, the private sector's resources, logistical capabilities, and innovative solutions are indispensable.

During the 2015 earthquake, the private sector, with its established supply chains and resources, was uniquely positioned to swiftly meet the immense demand for emergency materials. Similarly, during the COVID-19 pandemic, the private sector played an important role in addressing the shortages of essential medical equipment.

Their quick mobilisation helped to mitigate the crisis and save lives. In the 2023 Western Nepal earthquake, the private sector once again demonstrated its importance by contributing resources and logistical support as well as assisting in the recovery of houses and supplying building materials. Beyond disaster response, the private sector is also increasingly engaging in allocating funds to DRR initiatives. They are now integrating disaster management into their business continuity plans, ensuring resilience in the face of future disasters. In addition, they are actively participating in DRR discussions, linking their business interests with community welfare. According to the NPDRR guideline, the private sector is recognised as one of the nine thematic areas, highlighting its vital role in the disaster management framework.

Innovative solutions such as the **parametric insurance,** Eco-DRR, and nature-based solutions can be fostered in collaboration with the private sector to build resilient communities. This collaborative approach fosters knowledge sharing, enhances capacity-building, and ensures sustainable DRR initiatives. Moreover, mobilising resources from various sources is essential to sustain DRR efforts and implement effective programmes for a more resilient community.

4. **What are the best and good practices for integrating gender and social inclusion (GESI) and protection mechanisms in disaster risk governance?**

Women, children, people with disabilities (PWDs), and the elderly are among the most vulnerable populations during disasters, as they are disproportionately affected, have limited adaptive capacity, and often lack a voice in preparedness and response efforts. Government stakeholders often lack the in-depth knowledge of inclusion, and while existing acts and policies touch upon inclusion broadly, they do not adequately address intersectional vulnerabilities and the different needs of various vulnerable groups (Practical Action, 2023). Moreover, a lack of awareness about vulnerabilities and needs within communities exacerbates the issue. Families of disabled and vulnerable individuals often lack the understanding and resources to address their specific challenges.

Globally, the importance of gender equality in DRR has been recognised since 2005, when the Hyogo Framework for Action was adopted. Both, this framework and the subsequent Sendai Framework 2015 called for gender sensitive DRR plans and policies to ensure that the needs of women and girls are met, and their contributions are valued (UN FAO, 2016).

Nepal has made significant progress in adopting a gender sensitive and inclusive approach throughout DRRM policy processes, institutionalising disaster risk concerns to empower vulnerable groups and fostering their active participation in disaster risk governance.
Moreover, Nepal remains committed to the principle of 'Leaving no one behind' in its DRR
and resilience-building efforts. The GEDSI Strategic Plan of Action, 2024 is crucial in this commitment, integrating GEDSI principles across the four priority areas of the Sendai Framework for Disaster Risk Reduction (SFDRR). This includes the development of accessible and inclusive multi-hazard EWSs, ensuring non-discriminatory participation in
DRR activities, and embedding GEDSI into institutional frameworks at all levels of
government.

By integrating GEDSI into disaster risk financing and social protection measures, the plan aims to reduce vulnerabilities and ensure that no one is left behind in Nepal's journey towards disaster resilience. For the effective inclusive DRR governance mechanism, localisation of this strategy at all levels of government is essential.

According to provisions made, a GESI focal point is appointed in all government institutions which is a positive move in mainstreaming gender and social inclusion in the country.
According to the 2022 local level election, 41.21% of the total elected representatives were women. Of the total 753 local governments, 25 local governments are led by women. Similarly, more than 75% Vice Chair/ Deputy Mayor of the local governments are women. This significant number is a result of affirmative action measures implemented in the 2017 local elections, which mandated that one of the two candidates for the Chief and Deputy Chief positions must be a woman. This inclusive measure is one of the major achievements to bring women leadership in decision-making as all elected representatives have provisions to work in DRRM.

Additionally, Nepal, under the leadership of NDRRMA, has recently drafted the National Standard on Shock Responsive Social Protection (SRSP), designed to provide shock responsive social protection to vulnerable populations.

"It is a great move from the NDRRMA, that recognises the demand of civil society organisations. SRSP is one of the collective demands from civil society organisations since many years. This standard was formulated based on the lessons learned among network members from the grassroots levels", said the Chair of DPNet Nepal. Endorsement of the SRSP may significantly improve disaster response. This will enable a more inclusive forecasting, allowing to anticipate and prepare for future shocks. Additionally, it will streamline post-disaster relief and recovery efforts, ensuring that vulnerable populations receive timely and effective support.

However, in practices, the mandatory inclusion of women and at-risk-groups representation in governance structures at federal level seems insufficient. The provision in the DRR Act 2017 mandating the representation of at least one woman in the executive committee of the National Council for Disaster Risk Reduction and Management (NCDRRM) is a crucial step towards ensuring gender equality and inclusivity in DRR governance in Nepal. However, the fact that the executive committee has been (dis)functioning without the representation of women is a significant oversight and a missed opportunity to leverage the unique perspectives and experiences of women in DRR decision-making. So, inclusive representation in governance structures at the federal level is essential for ensuring that DRR policies, strategies, and action plans are responsive to the needs and concerns of all segments of society, including women.

At the community level, the CDMCs are one of the best examples in which Nepal has demonstrated inclusivity in DRR. Most of the CDMCs are formed with the representation of women and marginalised population. These CDMCs have formed with different thematic sub-committees for effective DRRM. These sub-committees include early warning, search and rescue, first aid that plays crucial role, both for preparedness as well as during the disaster. Though CDMCs are grassroots level networks, many are now formally registered in the local government as per the Local Government Operation Act 2017.

This registration helps to connect the local government authorities with local communities and their needs and aspirations mainly during and after the disaster. In many instants, such community engagement in DRRM is called citizen science approach in DRR.

This section below showcases the exemplary inclusivity demonstrated by the selected networks.

In response to the 2023 Jajarkot earthquake, WHDRRP partnered with the Center for Disaster Management Studies (CDMS) and the Feminist Dalit Organization (FEDO), with financial support from UN Women, to establish two community kitchens in Jajarkot and Rukum West - two districts heavily affected by the earthquake. These community kitchens aimed to ensure food security and address the hunger of earthquake-affected families. This directly benefited 150 households, out of which 141 were female-headed and nine were male-headed households. Over the 30 days, 777 family members located in RanaGau, Ward No. 4 of Bheri Municipality in Jajarkot, and Gitthakot, Ward No. 2 of Sanibheri Rural Municipality in Rukum West, were supported. In those community kitchen initiatives, earthquake-affected local women from the Dalit community, a so-called untouchable community, were at the forefront in managing the kitchen. This initiative demonstrated a commitment to inclusivity, even in the face of persistent caste-based discrimination in the country. In such a manner, by empowering women, advocating for gender equality and inclusivity and building capacity, the WHDRRP is contributing significantly towards strengthening inclusive DRR in the country. The WHDRRP's initiatives demonstrates that disasters can be an opportunity to address and reduce existing social discriminations, such as caste-based discrimination. By focusing on inclusion and equity in disaster relief efforts, networks like WHDRRP can contribute towards creating a more just and equitable society.

Similarly, NYCA also promotes marginalised communities to voice their concerns and needs in climate action by promoting inclusivity. Regarding the inclusivity initiatives of the organisation, the NYCA representative stated that,

"NYCA is committed to creating a welcoming and inclusive space for all young people aged 18-29. We actively seek to represent a diverse range of people in our activities. For instance, our recent ninth national conference, featured participants from diverse ethnicities, genders, abilities, geographic locations and sexual orientation."

This demonstrates that NYCA - a youth lead network - is sensitive towards inclusivity. Furthermore, their advocacy for youth-friendly initiatives highlights the importance of intergenerational equity, ensuring that the needs and concerns of future generations are considered in climate policy.

Likewise, C&D Dialogue is equally dedicated to incorporating GESI into climate and DRR governance at all levels. The platform has established effective practices by organising workshops, national conferences and discussions that focus on the specific needs of women and marginalised groups in the context of climate fragility. Through these initiatives, the network has developed a set of nine principles aimed at ensuring climate actions that are equitable and just for these communities. C&D Dialogue continues to advocate for these principles, emphasising the importance of justice and intersectionality in climate policy and projects. This sustained effort, ensures that key issues of equity are embedded in disaster risk governance, promoting more inclusive and protective mechanisms.

On the other hand, DPNet has demonstrated a commitment to inclusivity by ensuring representation of gender, ethnicity, and PWD on its executive committee and technical advisory board. Towards the commitment to inclusivity, the Chairperson of DPNet summarises this as, "*DPNet actively seeks to ensure that marginalised groups, including the people with disabilities, are represented in DRR discussions and decision-making processes. Through its disability-inclusive training programmes and accessible information materials, DPNet is breaking down barriers and creating a more equitable DRR environment. For instance, with the financial support of CBM, DPNet is likely the first organisation in Nepal to conduct province-wide disability-inclusive DRR training in 2018. This initiative aimed to prepare adequate human resources in the field of DRR, ensuring that people with disabilities are included and their needs are addressed*".

Likewise, DPNet has contributed to the development of vital documents like the DRRM Act 2017, DRRM Policy 2018, DRR National Strategic Plan of Action 2018-2030 and others, ensuring that these legal instruments are GEDSI informed. By empowering marginalised groups, particularly people with disabilities, and providing accessible training and information, DPNet is building a more resilient and equitable society. Such focus on inclusivity aligns with the growing recognition of the importance of gender and social equity in DRR (Gaillard et al., 2017; Sultana, 2013, Samiullah et al., 2015).

8. Conclusion

The analysis of four networks – DPNet, C&D, WHDRRP and NYCA, demonstrates the critical role of civil society networks in strengthening DRR governance in Nepal. By providing platforms for community voices, knowledge sharing, and issue-based discussions, these networks significantly amplify community voices and concerns. These networks actively participate in policy development, collecting evidence from communities and advocating for evidence-based policies that prioritise DRR and address the specific needs of vulnerable populations. Through training programmes, workshops, campaigns, and other initiatives, these networks contribute to capacity development, empowering individuals and communities to be better prepared, respond effectively, and recover from disasters, fostering a strong state-community partnership in DRRM. Networks also foster community-centric approaches like EWS and parametric insurance with the integration of local knowledge through CDMCs, empowering communities to analyse hazard knowledge, assess potential risks, and explore local DRR strategies. This approach not only enhances community resilience but also contributes to reducing disaster losses and damages.

The networks also facilitate the fostering of collaboration among government agencies, non-governmental organisations, the private sector and other DRR stakeholders, which promotes a more coordinated and effective response capacity to address emerging disaster risk at community level and beyond. By acting as a bridge between policymakers, NGOs, and communities, networks ensure that DRR strategies are inclusive and well-aligned towards the needs of hazard exposed communities. Networks bring together different stakeholders, foster relationships, and interactions between and among multiple stakeholders at different scales and different levels, ranging from community to national as well as international level, to strengthen resilience. This collective approach of working enhances cooperation, values diverse knowledge, and encourages collaboration and coordination with various stakeholders, including government agencies, community organisations, and networks which is essential for effective DRRM.

These networks can significantly address the specific needs of the vulnerable communities and enhance community resilience by advancing technology to provide innovative solution such as parametric insurance, Eco-DRR, nature-based solution in collaboration with private sectors and by strengthening local governance.

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List of Civil Society Networks working in the Field of Disaster Risk in Nepal
National Networks

Disaster Preparedness Network-Nepal (DPNet) https://www.dpnet.org.np/

DPNet-Nepal, established in 1996, stands as a key national umbrella organisation dedicated to enhancing disaster management in Nepal through a unified approach involving national and international agencies. The core focus of DPNet is on fostering coordination, collaboration, learning, and sharing of experiences in strengthening disaster management practices. The organisation plays a crucial role in knowledge management, capacity-building, policy advocacy, and in facilitating networking among government and relevant stakeholders.

Nepalese Youth for Climate Action (NYCA) https://nyca.net.np/

NYCA is a youth lead coalition advocating to tackle climate change, established in 2008 in the form of loose network. It operates nationwide through its regional chapters and volunteer network.

Women Humanitarian and DRR Platform (WHDRRP)

It is a loose network formed by women professionals those working in DRR and CCA in Nepal for policy advocacy from inclusive perspective on DRR and CCA, established in 2019. It operates basically at the federal level, but works in local, and community via its members.

Climate and Development (C&D) Dialogue https://prc.org.np/about/climate-and-development-dialogue

Established in 2017, Climate and Development Dialogue (C&D Dialogue) is an informal common platform of NGO/INGOs working in DRR and CCA, focused on climate and development advocacy including risk informed development. It facilitates dialogues and exchange of knowledge and learning on the interrelations between climate change, development and gender equality. It also works to bridge the knowledge gap on these areas between the national and local levels and generate collective actions for policy interventions.

Dalit NGO Federation (DNF) http://www.dnfnepal.org/

DNF, Nepal, established in 1996, is an umbrella organisation of all Dalit NGOs in the country. The main aim of DNF is fighting against caste-based discrimination and it is a common forum for raising collective voices of Dalit community for claiming rights.

Federation of community forest users' Nepal (FECOFUN) https://fecofun.org.np/

A formal network of Community Forest Users Groups (FUGs) from all over Nepal was established in June 1995 with the goal of promoting and protecting the forest users' rights through capacity strengthening, economic empowerment, sustainable natural resource management, technical support, policy advocacy, good governance and learning sharing of best practices. FECOFUN extended across the country to 7 provinces, 77 districts, and 555 local levels. It covers 23,026 CFUGs and 31,95,323 households.

NGO Federation Nepal https://www.ngofederation.org/

NGO Federation is an umbrella organisation of NGOs working in various fields of social welfare and development including DRR, CCA, and resilience. This national network works from federal, provincial and local and even with community via its member organisations. It engages in policy via its national steering committee.

Municipal Association of Nepal (MuAN)https://muannepal.org.np/

This is an association of elected mayor and vice mayor across the country in all 293 municipalities, engage in cross learning and upscaling of good practices on development sectors including CCA and DRR.

National Association of Rural Municipalities in Nepal https://narmin.org.np/

This is an association of elected chairs and vice chairs across the country in all 460 rural municipalities, engaged in cross learning and upscaling of good practices in development sectors including CCA and DRR.

The National Disaster Management Network of Nepal (DiMaNN) https://dimann.org.np/

Established in 2004, DiMaNN, contributes in policy advocacy, sensitisation and awareness-raising on Disaster Risk Reduction and Management, capacity-building of member organisations, stakeholders and community people. DiMaNN is expanded across the country with 100 member organisations from different provinces and districts

National network of community disaster management committee (N-CDMC).

This is a community-led loose network, to build the risk resilient community through awareness, capacity-building and policy advocacy, ensuring participation in both government and private agencys' planning and implementation.

Nepal Federation of Indigenous Nationalities (NEFIN) https://nefin.org.np/

Nepal Federation of Indigenous Nationalities (NEFIN) is umbrella organisation of the 59 Indigenous nationalities or peoples, recognized by the government of Nepal. It was established in 1991. NEFIN advocates for the diverse rights of Indigenous peoples, including those related to natural resources, climate change, and disaster risk reduction.

National Federation of Disabled- Nepal (NFDN) https://nfdn.org.np/

NFDN is the national cross-disability umbrella body of the Organizations of Persons with Disabilities (OPDs). Since its establishment in 1993, the organisation has been working continuously to promote and protect the rights of persons with disabilities through its key working strategies –advocacy, awareness-raising, capacity-building, and networking and collaboration. As an umbrella organisation, NFDN provides leadership to people with disabilities from all impairment groups in Nepal, represents their agendas in the decision-making process, influences and encourages the government, INGOs, development partners, other civil society organisations, NGOs, and private sectors for disability inclusion at the federal, provincial and local level.

Climate Action Network South Asia (CANSA) https://cansouthasia.net/

CANSA bridges policy, research, and action to tackle the adverse impacts of climate change in the South Asian region. CANSA Nepal was established in 2010 by the climate professionals affiliated with various civil society organisation working in climate and DRR. Currently, CANSA Nepal chapter comprises of 22 esteemed member organisations.

Zurich Climate Resilience Alliance https://zcralliance.org/

The Alliance is a multi-sectoral partnership, powered by the Z Zurich Foundation, focused on enhancing resilience to climate hazards in both rural and urban communities. Formerly the Zurich Flood Resilience Alliance, has over a decade of experience in generating evidence of communities' current levels of climate resilience and identifying appropriate solutions. Zurich climate resilience alliance operates globally in 20 countries, working with over 400 communities, including those in Nepal.