

From Risk to Readiness



Community driven Local-Level Disaster Risk Governance

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Steering Committee – Duryog Nivaran

Preface

The Duryog Nivaran (DN) network was established in 1995. At the time, three gaps in the disaster management stood out. The main gap was that disasters were responded too, not prepared for or mitigated against. The second gap was that community-centred disaster management was not a prominent feature. The third was the lack of recognition that disasters have differentiated impacts, that require gender-responsive approaches across all stages of disaster management. At the time DN was among the pioneers advocating for these changes.

Thirty years on, many more voices have joined this call, leading to greater acceptance and increased operationalisation - of inclusive, ground-level approaches. Both aspects which are embedded in the current framing of disaster risk governance advocated by the Sendai Framework that is supported by other major development frameworks; they are adopted by many country-level disaster management policies and operational guidelines and supported by Civil Society Organisation led efforts on the ground.

Yet despite these advances, the reality on the ground tells a different story. These principles still do not reach enough communities, leaving many people — particularly across South Asia — exposed to risks, and slower and less complete recoveries than better-governed responses could deliver. Part of the problem is a persistent gap in documentation: too little of what is learned at the community level is captured, shared, and fed back into the systems meant to serve the people.

The Strengthening Inclusive Disaster Risk Governance for Climate Resilience in Asia (SIDRRA) project was a response to this gap. Through it, DN supported four network members across Bangladesh, Nepal, and Pakistan to operationalise inclusive local-level disaster risk governance; from forecasting tools for communities to anticipate hazards, empowering marginalised groups, especially women, to take an active role in DRR, to accountability mechanisms that keep local institutions responsive and tracking projects long after a project ends. This publication showcases that work. It documents and disseminates our network members' ground-level experiences, both to strengthen the evidence base for inclusive local-level disaster risk governance and to add to the wider body of knowledge on what works, for whom, and why.

Evidence of this kind is not an academic exercise. It is what allows local-level disaster risk governance to move from a stated commitment to a practiced reality — and, in doing so, to protect lives, reduce suffering, and help communities recover faster and more fully when disaster strikes. It is our hope that this publication contributes to closing that evidence gap, moving us closer to communities that are not just better governed, but genuinely safer.

Achyut Luitel

Chair, Duryog Nivaran

List of Abbreviations

AA	Anticipatory Action(s)	DRR	Disaster Risk Reduction
ADPC	Asian Disaster Preparedness Center	DWRF	Dalit Women Right Forum
ADRRN	Asian Disaster Reduction and Response Network	EWS	Early Warning System(s)
AFAD	Association for Alternative Development	GBV	Gender-Based Violence
BIPAD	Building Information Platform Against Disaster	GFDRR	Global Facility for Disaster Reduction and Recovery
Cat-DDO	Catastrophe Deferred Drawdown Option	HFA	Hyogo Framework for Action
CBDRM	Community-Based Disaster Risk Management	HWA	Hari Welfare Association
CBO	Community Based Organisation	IBF	Impact-Based Forecasting
CCA	Climate Change Adaptation	ICKT	Institutional Continuity and Knowledge Transfer Checklist
CDD	Centre for Disability in Development	IDMVS	Institute of Disaster Management and Vulnerability Studies
CDECF	Community Development and Environment Conservation Forum	IRC	International Rescue Committee
CDMC	Community Disaster Management Committee [to be confirmed]	KAP	Knowledge, Attitudes and Practices
CIDRR	Community Initiated Disaster Risk Reduction	NGO	Non-Governmental Organisation
CFUG	Community Forest User Group	PAC	Practical Action Consulting
CTPG	Community Tracker Piloting Group(s)	SIDA	Swedish International Development Cooperation Agency
DCA	DanChurchAid	SIDRRA	Strengthening Inclusive Disaster Risk Governance for Climate Resilience in Asia
DDMA	District Disaster Management Authority	SIG	Special Interest Group(s)
DN	Duryog Nivaran	UDMC	Union Disaster Management Committee
DRF	District Disaster Response Framework	UNDP	United Nations Development Programme
DRG	Disaster Risk Governance	UNDRR	United Nations Office for Disaster Risk Reduction
DRM	Disaster Risk Management		

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Chapter 1

Framing Local-Level Disaster Risk Governance



Disasters increase the burden on women's time and ability to secure basic needs.

Photo credit: HWA project photos

1.1 What Is Local-Level Disaster Risk Governance?

The scale and severity of disasters are not purely the product of natural hazards; catastrophic impact is triggered by human decisions — decisions about where and what infrastructure is built, how land is used, and how resources are allocated and who makes these decisions (*Wisner et al., 2003*). With the adoption of the Sendai Framework for Disaster Risk Reduction 2015–2030, disaster risk governance (DRG) has become a central concept in the international disaster risk reduction (DRR) agenda. In the Sendai Framework, “strengthening disaster risk governance to manage disaster risk” is the second of its four global priorities for action (*UNDRR, 2015*). DRG operates on multiple scales, from local to global.

Disaster risk governance is the complex system of institutions, arrangements, policy and legal frameworks, and administrative structures designed to guide, coordinate, and oversee disaster risk reduction and climate change adaptation initiatives (*UNDRR, 2015*). Rather than referring to the actions of a single state authority, DRG describes a process involving multiple actors — public institutions, civil servants, the media, the private sector, and civil society — who together manage and reduce disaster and climate-related risk (*Galperin and Wilkinson, 2015*). Local-level disaster risk governance involves this same coordination taking place at the district, municipal, and community scale, where risk is experienced most directly and where risk-reduction actions are ultimately carried out. Moving away from traditional, top-down disaster response models, contemporary DRG emphasises that effective risk reduction must be inclusive, collaborative, and rooted in good governance principles, which can be classified as follows:

- **Transparent and Accountable:** legal and policy provisions, decision-making chains, institutional mandates, and capacity and resource flows must be in place; they must be visible, monitored, and trackable. Duty bearers and other stakeholders with responsibilities must be answerable and accountable to the public.

- **Inclusive and Equitable:** vulnerable, marginalised, and underrepresented socio-demographic groups are treated as vital rights-holders rather than passive recipients of aid. This also recognises the different needs and capabilities of different demographic groups.
- **Collective and Participatory:** multi-stakeholder and multi-sector mechanisms must actively integrate community voices with local, provincial, and national line departments. These multi-stakeholder systems also need to be well coordinated and collaborative — both horizontally and vertically.
- **Decentralised and Bottom-Up:** true local ownership is fostered when municipal authorities and local communities possess the autonomy and capacity to lead risk profiling and mitigation efforts. Autonomy can only function when not just authority, but also resources (financial, physical, and human) and skills, are transferred to the local level — resulting in more efficient management of disaster response.

(Compiled from: *UNDRR, 2015; ADPC, 2005; Uddin, et. al., 2021; Ariyabandu, 2018*)

Community-Based Disaster Risk Management (CBDRM) is a concept whose roots can be traced to the 1980s, when Maskrey's Oxfam-linked work on community-based disaster mitigation in Latin America (by LA RED) and the founding of regional practitioner networks such as Duryog Nivaran in South Asia (*Duryog Nivaran, 1995*) began to consolidate DRR as a distinctly local, community-driven practice. This practice-based tradition ran alongside the vulnerability paradigm that Wisner and colleagues established as the field's conceptual foundation, arguing that disasters result not from natural hazards alone but from the intersection of hazard and social vulnerability (*Wisner et al., 2003*). With slight modifications, CBDRM remains the operational model most widely used to actively engage at-risk communities in the identification, analysis, treatment, monitoring, and evaluation of disaster risk at ground level, positioning community members as decision-makers rather than passive recipients of external assistance (*Lassa et al., 2018*). Maskrey (2011) argues that disasters are fundamentally local issues that need to be solved by more localised systems, and that local communities therefore hold legitimate standing to act on the risks affecting their own lives — going beyond the right to be consulted, to genuine involvement in decision-making.



Better risk communication by reaching different communities in remote locations, representing different minority groups and people with disabilities.

Photo credit: PAC project photos – Nepal

1.2 Why Does Local-Level Disaster Risk Governance Matter?

The poor bear a disproportionate share of disaster risk, and governance choices shape both exposure and vulnerability as well as communities' ability to face and recover from disasters (*Wisner et al., 2003*). It is at the local level that direct community involvement is most practical and effective. This requires a shift in framing — from viewing communities as victims in need of relief or rescue, to recognising them as first responders and active participants in identifying risks specific to their location, selecting appropriate preparedness and mitigation actions, and establishing mechanisms for putting those actions into practice (*ADPC, 2005; Ariyabandu, 2018*). Ariyabandu (2018) notes positive progress in terms of gender inclusion at national policy level but states that more work is needed especially for better implementation at the local level. On this basis, Ariyabandu argues that strengthening inclusive risk governance at the local level means deliberately expanding leadership opportunities for women, persons with disabilities, and minority groups within local governance mechanisms themselves — not simply adding their participation to processes designed and led by others.

Because exposure to hazards is localised, local authorities are also the frontline actors responsible for translating national resilience strategies into concrete decisions, planning, management, and for engaging communities directly (*UNDRR, 2025*). The scale of exposure also gives the question practical urgency. Rebuilding after a disaster is extremely costly, drawing on public expenditure as well as official development assistance, civil society, and private-sector funds, and can place a severe burden on national fiscal capacity: in some smaller and more disaster-exposed states, a single catastrophic event can cost the equivalent of 18% or more of total public expenditure (*World Bank, 2014*). Well-functioning risk-reduction systems that operate down to the local level can ease this pressure through better preparedness (*World Bank, 2014*). Responding at the local level — closest to the source of disaster impacts — should therefore produce the best outcomes.

However, DRR at the subnational level is consistently slower than at the national level, constrained by comparatively low levels of awareness and technical and financial capacity, and the interplay with political dimensions (*Galperin and Wilkinson, 2015*). The degree to which national policies are actually implemented at the local level often remains poorly documented, and where it has been investigated directly, implementation has been found to be weak (*Uddin et al., 2021*). Duryog Nivaran's own review of CBDRM in Sri Lanka reached a similar conclusion, finding that the connection between national disaster management structures and village-level practice frequently breaks down between disaster events (*Kalugalagedera, 2020*). This is a gap that needs to be filled, requiring greater attention to establishing these systems on the ground, implementing them consistently, and documenting the evidence of what works.

1.3 Elements of a Framework for Disaster Risk Governance

To understand the paradigm shift toward inclusive governance, the SIDDRA model draws from, evaluates, and aligns itself with key foundational global disaster risk frameworks. Table 1 compares four major frameworks against the four principles of DRG introduced in Section 1.1, based on the available literature.

Table 1: Framing of Disaster Risk Governance by Key Stakeholder Groups

Framework	Transparent and Accountable	Inclusive and Equitable	Collective and Participatory	Decentralised and Bottom-Up
UNDRR/ Sendai Framework <i>(UNDRR, 2015)</i>	A Sendai guiding principle calls for the full involvement of every executive and legislative arm of government, from the national level down to the local as well as assigning responsibilities to other stakeholders – in a way that is complementary, with accountability and follow up.	Promotes empowerment and inclusive, accessible, non-discriminatory participation, with attention to people disproportionately affected by disasters, especially poorest, based on gender, age, disability and cultural perspectives. Women and youth leadership promotion is also emphasised. Also advocates for the protection of people as assets and the right to development.	Promoted an all-of-society engagement and partnership building. Specifies the role of global partnerships as well as international cooperation. Promotes decision making to be inclusive and risk-informed.	Recognises that disaster risks have local and specific characteristics. Emphasises empowering local authorities and communities to reduce DRR through resources, incentives, and decision-making responsibility at the local level.
UNDP <i>(Galperin and Wilkinson, 2015)</i>	Accountability is defined as public officials' legal obligation to report on the use of public resources, requiring transparency so communities can access accurate performance information. Accountability not only upward, to donors, but also downward, to communities.	Defines participation as giving communities and vulnerable groups real influence over the government decisions that affect their safety, not merely consultation.	Explicit horizontal and vertical integration, described as building a 'polycentric' governance system with roles, resources and authority shared between actors at national and local level as well as with public, private and civil society stakeholders.	Decentralisation is explicit, requiring the authority and capacities of subnational levels to increase together, not authority alone (principle of subsidiarity).
World Bank <i>(World Bank/ GFDRR, 2020)</i>	Emphasis on promoting transparency and accountability in recovery. Independent oversight and transparency are listed as core recovery policy elements; contingency funds are expected to have clear criteria for use and a transparent, accountable governance mechanism – with technical and social audits.	This emphasises the importance of providing reconstruction support to low- income households, which are typically more exposed, more vulnerable, and less comprehensively supported.	Community participation is treated as fundamental to ensuring local ownership and the longer-term sustainability of recovery efforts. In addition, community participation is seen as important to access viable livelihoods, economic infrastructure, and social services - comparable to better than those available prior to the disaster.	"Subsidiarity and local implementation" is a named recovery policy element, explicitly allowing recovery planning agencies to be located within subnational entities — though sovereign-level instruments (Cat-DDOs, catastrophe bonds) still dominate the financing chapters.
CBDRM <i>(ADPC, 2005)</i>	In this process the focus is on the local level institutions	Explicitly frames community members as decision-makers in their own right, not as passive aid recipients.	Explicit networks-and-partnerships framework spanning government, private sector, NGOs, CBOs, and religious/ community leaders, built to pool resources and avoid duplication.	Authority transferred to community and local government to be matched by an operational transfer of power, resources, and skills, or it becomes an unfunded mandate.

As the table shows, each framework subscribes to broadly similar principles, but with different emphases and instruments. Each has also drawn critiques, based on literature examining implementation efforts under each frame.

UNDRR's Sendai Framework has a dedicated priority area — Priority 2 — for “strengthening disaster risk governance to manage disaster risk,” and advocates for clear institutional roles, wide inclusion of marginalised groups, cross-sectoral platforms, and a comprehensive legal structure to manage risk across scales. It has also, more recently, increased its focus on decentralisation.

Some gaps in the framework's implementation are also noted by UNDRR (2015): while the Sendai Framework promotes legal and institutional accountability, it remains non-binding, with no enforcement mechanism. DRR financing also remains fragmented and reactive, with dedicated funding mechanisms especially limited at the local level, by UNDRR's own admission.

The UNDP DRR Framework is aligned with the Sendai Framework but emphasises the integration of DRG with development processes such as the SDGs and climate action — treating it as a structural development challenge. It shares a similar focus on institutional capacity building and legal codification, but also emphasises shared responsibility among the state, communities, and other stakeholders.

Some implementation challenges are noted by Galperin and Wilkinson (2015): Weak accountability mechanisms persist, and DRR responsibilities are not yet accompanied by clearly defined local-level authority and/or resource allocations, reducing the effectiveness of decentralisation. Despite growing acknowledgement of the need for gender mainstreaming and inclusion, in practice while channels exist it was identified that there were few examples of communities influencing government decision-making at different levels. Disaggregated data systems remained uncommon, making it difficult to track whether outcomes actually improved. Multi-stakeholder national DRR platforms exist in many countries, but their existence does not guarantee better coordination: some function well and are trusted, while others lack legal status or real influence.

World Bank / GFDRR approaches risk governance primarily through financial risk management, macroeconomic resilience, structural risk financing (such as catastrophe bonds), and cost-benefit allocations for hard infrastructure protection at the recovery stage.



Partnering and collaborating with local actors to cater to the local context and needs.

Photo credit: IDMVS project photos, Bangladesh

The World Bank (*World Bank/GFDRR, 2020*) notes that as an economic framework it prioritises large-asset protection, quantifiable infrastructure returns, and sovereign-level instruments such as Cat-DDOs and catastrophe bonds. While local-level financing is addressed mainly as an institutional design option rather than a resourced default. The guidelines also flag that accelerated post-disaster procurement needs pre-established transparency and accountability specifically to guard against corruption and misuse of funds — accountability here is oriented around fund integrity, more than toward affected communities directly. Framed this way, participation and inclusion function more as targeting criteria for effective delivery than as a rights-based standard.

CBDRM framing is, by design, bottom-up and locally grounded. CBDRM literature argues that local governments need a framework that gives them authority to lead, incentive to act, and policies and plans to guide action, alongside direct access to financial and technical resources (*ADPC, 2005*). Multi-level, multi-sector coordination across diverse actors is emphasised, and its language on participation and inclusion is the most closely aligned of the four frameworks with the idea of rights-holders.

An assessment of CBDRM implementation by Ravazzoli et al. (2025) find that community participation is concentrated in the early stages of a project — prevention and preparedness — and drops sharply during recovery and long-term monitoring; women's roles are also more frequently limited to volunteer work, while men dominate actual decision-making, even in programmes that formally count as 'participatory'. Ensuring adequate financing and technical expertise also remains a persistent practical challenge. DN's own experience also concurs with these findings.

The literature also highlights several additional elements as important for local-level DRG: education and public understanding of risk as a prerequisite for functioning governance rather than a downstream benefit of it; the incentive and political will to act as a distinct prerequisite alongside formal authority; and networks and partnerships across sectors for pooling resources and avoiding duplicated effort (*ADPC, 2005*). Collaborative governance at the local level also depends on facilitation and communication skills not always present among technically trained practitioners, and on responsibility being clearly assigned rather than diffused across many actors — unclear ownership can undermine, rather than strengthen, governance effectiveness.

1.4 The SIDDRA Framing of Disaster Risk Governance

The Strengthening Inclusive Disaster Risk Governance for Climate Resilience in Asia (SIDDRA) project is an initiative aimed at enhancing climate resilience and adaptability among at-risk communities in Asia. Funded by the Swedish International Development Cooperation Agency (SIDA), it is implemented by the International Rescue Committee (IRC), the DN, and the Asian Disaster Reduction and Response Network (ADRRN). Its core objectives are to amplify local voices and lived experiences to influence regional climate policy; to make disaster preparedness accessible by putting marginalised groups at the centre; and to support local-level adaptation and resilience-building initiatives.

Recognising that localised governance systems, although widely deemed a key component of DRR and resilience-building, still lag behind in effective operationalisation, DN worked with network members in Nepal, Pakistan, and Bangladesh to strengthen local-level DRG and build a robust evidence base. The projects were as follows:

- **Practical Action Consulting (PAC) – Nepal:** focuses on shifting early warning architectures into community-led, Impact-Based Forecasting (IBF) models.
- **Hari Welfare Association (HWA) – Pakistan:** drives institutional change by empowering women peasant trade unions to claim representation in formal local governance spaces.

- **Dalit Women Right Forum (DWRF) – Nepal:** targets highly marginalised intersectional communities to dismantle social barriers preventing active involvement in natural resource and disaster governance.
- **Institute of Disaster Management and Vulnerability Studies (IDMVS) – Bangladesh:** deploys data-driven, community-backed tracking systems to increase accountability.

To guide the work on the ground and draw out overall insights and lessons learned, a framing of inclusive local-level DRG was developed based on the existing frames and critiques described in Section 1.3. The frame comprises of two operational principles, each with a set of related outcomes; this section documents that framing.

INSERT Diagram – Krishan to design based on info below

Principle 1: Accountable and Transparent Local-Level Disaster Risk Governance is framed primarily around the obligations of duty-bearers to ensure legal and policy provisions and institutional mandates that provide the autonomy, capacity, and resources to operationalise national plans at the local level. These processes must also be visible, monitored, trackable, and answerable and accountable to the public.

Related outcomes:

- 1) Improved disaster risk management, reduction, and climate adaptation, supported by legal and policy structures and by institutions — with the required autonomy, capacity, resources, and commitment — capable of serving different community groups.
- 2) Better two-way coordination (vertical and horizontal) and collaboration among stakeholders (state, non-state, and community) to increase efficiency and reduce disaster-related impacts.
- 3) Development of functional, accessible, and disaggregated data and information systems to support the monitoring and tracking of governance interventions.

Principle 2: Inclusion, Participation, and Collective/Collaborative Actions are geared more toward rights-bearers, ensuring that vulnerable, marginalised, and underrepresented socio-demographic groups are treated as vital rights-holders rather than passive recipients of aid, and that the different needs and capabilities of different demographic groups are considered and addressed. This principle also embeds the need for multi-stakeholder and multi-sector mechanisms to be in place, actively integrating community voices with local, provincial, and national line departments.

Related outcomes:

- 4) Meaningful participation, equal opportunity, and empowerment for all groups (including children, youth, elders, persons with disabilities, internally displaced persons, and women within all marginalised groups) at every level and stage of DRR work, including efforts to give vulnerable communities a voice in decisions that affect them.
- 5) Readiness for multi-stakeholder engagement to design, implement, and monitor actions.
- 6) Fostering of a risk-aware culture built on wider awareness, knowledge, and preparedness.



Onsite training increasing access to women and other marginalised groups.

Photo credit: DWRF project photos

1.5 Purpose and Structure of This Booklet

The core objective of this booklet is to move beyond abstract theory and add to the existing body of evidence with grounded examples of inclusive local-level DRG. By synthesising multi-country experiences, it demonstrates some of the main successes in promoting better DRR governance at the local level, while also presenting the challenges and gaps that remain. It also emphasises how communities can transition from being viewed as vulnerable disaster victims to acting as leading governance change-agents.

Chapters 2 through 5 present the thematic case studies, followed by Chapter 6, an analytical synthesis of the lessons learned from the case studies, organised according to the SIDDRA local-level DRG frame introduced in this chapter.

See Annex for references



Chapter 2

Strengthening Women Peasant and Rural Workers' Resilience Through Local Governance

Implemented by Hari Welfare Association (HWA)
Location: Shaheed Benazirabad and Mirpurkhas districts, Sindh, Pakistan



Training workshop on disaster preparedness, conducted by HWA on Early Warning Systems, securing households and protecting livestock.

Photo credit: HWA project photos

2.1 Background

For the last few years, disasters, especially floods and heavy rainfall, have been affecting different regions of Pakistan, including riverine areas in Sindh Province. The recurrent disasters exposed a critical gap between the District Disaster Management Authority (DDMA) and rural communities, where top-down planning and inaccessible communication left peasants and sharecroppers disproportionately vulnerable. Women peasants and rural workers are the most vulnerable to disasters but are often excluded from disaster governance and have limited knowledge of early warning systems, affecting their ability to recover and build long-term resilience. This project aimed to strengthen the capacity of peasant women's trade unions and to sensitise government officials to work collaboratively to build community resilience and protect livelihoods ahead of predicted climate risks.

Project Objectives:

HWA introduced disaster risk management (DRM) programmes to their partner organisations – the Women Peasant Unions and other Special Interest Group (SIGs) in Shaheed Benazirabad and Mirpurkhas districts. The approach focused on enhancing disaster preparedness and boosting their readiness by increasing knowledge and capacity for response among women peasants and rural workers. The project also established a functional disaster response framework for better collaboration and coordination between local government agencies and peasant organisations. The approach focused on empowering the women in the unions to advocate effectively for themselves as community leaders as well as to advocate for meeting the needs of vulnerable groups during disaster response and recovery efforts.

Key Activities:

The project carried out a baseline survey to capture the existing Knowledge, Attitudes, and Practices (KAP) related to disaster preparedness and climate resilience within the target communities; to identify and map key stakeholders for project engagement; and to provide the background for the District Disaster Response Framework (DDRF).

The DDRF was an important activity, as a local-level disaster response framework in the local language (Sindhi) was not available before. It was developed through a collaborative process with key state officials (including the Focal Person for the DDMA), the community, and civil society. This process, facilitated through a series of meetings, helped to bridge the gap between the relevant government departments and communities.

Capacity-building training workshops for communities on DRR were carried out to increase community knowledge and capacity on early warning systems, community-level response mechanisms including livestock protection and household preparedness, and the role of local governance and community responsibility in DRR. All workshop sessions were organised in the village to make them easily accessible and convenient — especially for women with care responsibilities or mobility restrictions. The workshops were delivered in a localised context and language to increase comprehension. Furthermore, visualisation, group work, and presentations were used to engage participants. The project actively encouraged participatory learning and collective decision-making among women leaders.

Disaster simulation drills for multiple hazards (flood, earthquake, fire, heatwave, cyclone, pandemic) were conducted at village level to provide practical, participatory disaster simulation drills to strengthen the disaster preparedness and response capacity of peasant women and rural workers. These drills enabled community members to practice emergency response procedures, test preparedness plans, and improve coordination during potential disaster events.

Project Reach:

This project has been implemented in 12 villages with 12 peasant women's trade unions, a total of 300 women across two districts (Shaheed Benazirabad and Mirpurkhas) of Sindh, Pakistan. Activities mainly included women from Indigenous and minority groups. The indirect benefits included others in the community – who also gained from DRR knowledge transfer and the local level state officials who also gained from increased interactions with the community.

2.2 Realities from the ground

Ms. Fouzia (37), suffers from polio and lives in a flood-prone village - Hout Khan Laghari, in Union Council Doulatpur, Taluka Shujaabad, Mirpurkhas. Due to her limited mobility, Fouzia and her family are highly vulnerable to natural disasters, especially floods and heavy rains.

During the devastating floods of 2022, Fouzia's house was surrounded by floodwater. She faced extreme difficulty in moving to a safe place, and her family lost essential household items and food supplies. This experience exposed the serious risks faced by persons with disabilities during disasters and the lack of early warning and preparedness. *"It was very difficult for me to walk through flood water for two kilometres to reach a safe place"*, says Fouzia

Recognising the vulnerability of her village, under this project, HWA organised a one-day training workshop on Disaster Preparedness, Early Warning System & Livestock Protection in Fouzia's village. The training focused on practical disaster preparedness, with special attention to the needs of different groups such as women and persons with disabilities.

Fouzia is an active member of Peasant Women's Trade Union and after attending the training she gained confidence and practical knowledge on early warning systems and safe evacuation. She did not keep this knowledge to herself. Fouzia organised 'cascade training' sessions and shared the learning with other villagers, especially women and persons with disabilities, helping them prepare for future disasters.



Ms. Fouzia, an active member of the peasant women's trade union who trained others in the community on disaster Preparedness.

Photo credit:
HWA project photos

She is also actively involved as a member of the district level SIG and maintains direct coordination with district government departments to seek timely support during emergencies. Today, Fouzia is not only better prepared to protect herself and her family but has also become a source of strength and awareness in her community.

2.3 Changes due to the project

Sharing Knowledge and Empowering the Community to Build a Risk-Aware Society:

Twelve community capacity-building workshops were conducted in the two districts in Sindh Province. In addition, on the request and interest of the community, HWA facilitated a further 8 'cascade trainings' to spread the message of DRR. These cascade trainings were led by community members who were very keen to share their knowledge and teach other community members about disaster management and reducing risks, with HWA trainers on hand to assist if needed. These trainings included pre-disaster preparedness, safe household construction, livestock protection, early warning systems, and coordination with concerned departments during times of crisis. The trainings were gender-inclusive and participant-centred. HWA observed that community members' understanding of how to handle disasters in real time was enhanced.

For many of the women in Benazirabad and Mirpurkhas, it was their first time learning about DRR — especially how to respond. Very few had previously been aware of how to manage disasters and take measures to reduce the impact on life and livelihoods.

A community member, Habib Khatoon, from the district of Benazirabad, said, *"This [Disaster Risk Reduction] training was a very new thing for us. We had not thought about dealing with floods, droughts and heavy rains."*

The capacity-building workshops helped communities understand the need for pre-disaster preparedness and risk reduction. Household preparedness practices can be evidenced by families adopting multiple risk-reduction measures, including food and water storage, livestock protection measures, house repairs, and protection of important documents.

Ensuring Inclusion through local level delivery of activities: The project carried out all of its activities at village level. This allowed men and women — including peasant women, rural workers, religious minorities, and persons with disabilities — to easily access the awareness sessions, trainings, and meetings. For many whose lives depend on livestock and agriculture, the training offered practical solutions to improve their disaster preparedness. Furthermore, the proactive involvement and engagement of women from the community as trainers shows that the community felt the programmes were useful and that there is interest for the training and awareness-raising to continue beyond the project.



Proactive involvement and engagement of women from the community in the DRR capacity building workshops

Photo credit: HWA project photos



Community engages in practical DRR drills and get hands-on training in first aid and rescue techniques that can save lives.

Photo credit: HWA project photos

Shanti, a member belonging to a minority group from the Mirpurkhas District, also shared similar views on the training she attended. *“Heavy rains and floods adversely affect our lives. Training about disaster [risk reduction] is new and exciting. We actively participated and learned to save our lives and belongings during disasters.”*

Building Institutional Capacity and Improving Collaboration: The DDRF was discussed and modified based on 6 stakeholder meetings, with active participation from focal persons from the DDMA, Rescue 1122, and other state officials, as well as representatives from peasant women's trade unions and civil society. These meetings helped to shape the framework, while also building a shared understanding of its objectives, structure, and intended outcomes, and reinforcing institutional ownership and collaboration. Government stakeholders appreciated the meaningful role of peasant women's trade union members, highlighting their contribution towards inclusive disaster preparedness and response planning. This recognition is a key outcome towards more collaborative disaster risk management.

The DDRF was subsequently developed and handed over to the DDMA. The DDMA and other district government departments showed ownership by reviewing, providing feedback, and sharing their valuable suggestions on the early warning system and disaster preparedness.

Furthermore, a training manual aligned with the DDRF and the needs of the community was also developed in the local language (Sindhi), increasing accessibility and understanding. Meetings and awareness workshops were carried out to make sure that both community members and district government officials were aware of, and could implement, the DDRF. The DDRF sparked interest among stakeholders, who shared action points during these meetings.

Linking with the State System to Increase Disaster Response Capacity: Beyond this policy-level work on the DDRF, the project also built practical, operational links with the state emergency response system to strengthen disaster response capacities directly. Twelve village level disaster simulation drill workshops were organised in partnership with Rescue 1122, the provincial government agency responsible for emergency and disaster response. These paired state emergency infrastructure directly with community-level preparedness rather than treating the two as separate tracks. Simulating real disaster scenarios such as floods, earthquakes, and fires, the drills moved beyond theory into hands-on demonstration and practice: participants were trained in evacuation procedures, first aid, CPR, fire safety, and basic rescue techniques, with trainers guiding the demonstrations followed by supervised practical implementation, so participants could build confidence and sharpen decision making under simulated pressure. The drills were attended by 319 participants — skewed heavily toward inclusion by design — 275 women, 120 members of minority communities, and 5 persons with disabilities.

The final evaluation, through a survey covering 72 respondents across both districts, recorded that communities demonstrated a stronger understanding of disaster risks, moving beyond recognition of floods, droughts, heatwaves, and heavy rains to understanding their impacts on livelihoods, food security, health, and displacement. A significant change emerged from the endline, as women's confidence to respond to disasters increased dramatically from around 10% at baseline to over 91% at endline. Another significant achievement was the expansion of access to Early Warning Systems (EWS): awareness of, and access to, disaster warnings increased from 9.1% at baseline to 97.2% at endline. Institutional awareness also improved considerably, increasing from 50% to 76.4%, with community members increasingly recognising the roles of the DDMA, local government, rescue services, and NGOs.

2.4 Challenges

Operational challenges: Low literacy among community members was a major challenge. Language barriers, especially for women, slowed the pace of training. Moreover, the unavailability of concerned government officials posed a challenge for the implementing team, and undeclared holidays due to strikes also hindered project implementation.

Structural constraints: Despite the achievements, important structural challenges remain. Poverty, weak housing structures, inadequate shelter facilities, limited government service delivery, and continued reliance on debt and asset sales during emergencies continue to constrain resilience outcomes. Significant disparities also exist between districts, particularly regarding training coverage, transport availability, and access to safe shelters and clean water.

2.5 Lessons Learnt

Communities have often experienced floods, heavy rains, and droughts, but there has not been adequate awareness built on preparedness or recovery. There is therefore a lot of interest in the topic, in order to protect lives, livelihoods, and productive assets. Furthermore, the community valued the knowledge and was motivated to spread it and participate in disaster preparedness activities.

The fact that all training and workshops were done in the local areas, in local languages, and involved community members themselves as trainers, helped to increase interest in the topic and allowed a range of community members to participate. Women also showed that when given the opportunity, they can take a leading role and actively engage in building resilience.

From the perspective of local government, they appreciated and acknowledged that community-centred awareness-raising can increase behavioural change — and that this is what is required. The local state mechanism also appreciated the contribution of community inputs into developing the DDRF.

In this project, HWA worked with the peasant women's trade unions, who are already registered with District labour departments and already work closely with government departments on various social issues. HWA also have a long-term relationship with these groups and will continue this relationship. This allowed the relatively short-term SIDRRA project to have a mobilised group and structure to work with. This allowed the team to go directly into activities, without having to spend time becoming familiar with mobilising and forming new groups. Given that community groups set up only for a project tend not to continue beyond its duration, the ability to use an existing group was advantageous.

2.6 Way Forward

The communities have taken the initiative to organise similar DRR training sessions for individuals who could not participate in the earlier trainings due to project limitations. In addition, there are a few individuals from the well-established community groups (trade unions) who are motivated and interested in replicating the awareness and training. Thus, it can be expected that the focus on DRR will continue beyond the project.

The peasant women's trade unions members and other minority groups are now part of the district coordination committees, alongside the DDMA, to implement the DDRF. Developed in the local language (Sindhi), the DDRF has reduced the gap between communities and government officials and increased the ease of communication and implementation. The coordination meetings include peasant women's trade union representatives, they have opened up access to decision-making forums for women and community members from minority groups, who remain committed to working with state officials given the potential for DRR actions to save lives and livelihoods. As both community and district government now have a good working understanding of one another, this coordination channel is expected to continue beyond the project.

While the project strengthened disaster awareness, preparedness capacities, early warning access, institutional engagement, and women's leadership, continued investment in infrastructure, livelihood resilience, shelter facilities, and institutional service delivery will be essential to sustain and expand these gains



Coordination meetings with the local level disaster officials and community, including members from the peasant women's trade union.

Photo credit: DWRF project photos



Chapter 3

Strengthening the Capacity of Women in Community Forest User Group (CFUG) on Fire Hazard Management

Implemented by Dalit Women Right Forum (DWRf)
Location: Sudurpaschim, Kailali District, Nepal

3.1 Background

In Kailali District, Nepal, the Indigenous Tharu community and Dalit hill migrants have been marginalised for centuries, despite being a significant portion of the population. These communities heavily depend on community forests for subsistence and livelihoods, yet they are often excluded from decision-making forums, which are dominated by elites, mostly men. The Tharu and Dalit communities in Nepal, particularly those living in climate-vulnerable areas, face heightened risks due to the increasing frequency and intensity of climate-induced disasters such as floods, fire hazards, heatwaves, and droughts. Forest fires in Kailali District recorded the highest number of forest fires in Sudurpaschim, with severe impacts on the environment and communities. In May 2019, a single fire destroyed 40% of the district's forest cover.

Project Objectives:

The project focused on strengthening the capacity of women members in Community Forest User Groups (CFUG) from Tharu and Dalit Communities on Fire Hazard Management Project. The project significantly strengthened community capacity for forest fire prevention and control through a series of awareness and training programmes. Orientations on forest fire prevention and management were provided to CFUG officials, with women accounting for 80% of participants, as well as to local government representatives. During these programmes, local government representatives expressed their commitment to allocate budgets and implement plans and programmes related to forest fire management in the future.

Key Activities:

- Strengthening community technical capacity in dealing with forest fires
- Building institutional capacity of CFUGs
- Training and awareness creation among local government representatives
- Development of a forest fire resource manual
- Construction of fire belts and recharge ponds (rainwater harvesting)
- Multi Hazard risk assessment, and
- Advocacy (budget allocation and adaptation of resource manual)

Community-level training, including practical exercises, was also conducted for women to enhance their skills in forest fire prevention and control. The training activities were coordinated through ERI Consultancy, whose experts had received advanced forest fire management training in Australia and transferred this knowledge to local communities. As part of the project, ERI Consultancy developed a forest fire resource manual and provided it to the Dalit Women's Rights Forum. The manual was subsequently distributed to community forest leaders and is currently being used as a key reference resource for orienting community forest user group officials.

The project also supported the construction of recharge ponds and fire control lines in community forests in coordination with the CFUGs and the Forest Division Office, and distributed essential firefighting equipment. Training on fire prevention and control has been systematically conducted with elected officials, stakeholders, and CFUGs, incorporating practical, hands-on exercises to strengthen response capacity.



Strengthening the capacity of women CFUG members from Tharu and Dalit Communities on fire hazard management.

Photo credit: DWRF project photos

These interventions contributed directly to reducing forest fire risks. For example, a firebreak established under the project successfully prevented the spread of a forest fire in Ratna Community Forest. Similarly, when a fire occurred in the Dalit Community Forest, it was effectively controlled using the firefighting materials provided through the project. These achievements demonstrate the project's positive contribution to improving community preparedness and resilience against forest fires.

The project undertook capacity-building initiatives to strengthen institutional and community competencies and conducted multi-hazard risk assessments to support evidence-based planning and decision-making. Traditional leadership structures (Valmansa) were used to ensure culturally grounded approaches, local ownership and to influence the need for better inclusion. The project also worked with local environmental journalists to enhance awareness and communication on climate and risk issues. Efforts were also made to facilitate inclusive stakeholder engagement to strengthen coordination and partnerships. The project also aimed to create awareness and reduce Gender-Based Violence through gender-transformative approaches, including male engagement and community sensitisation.

Project Reach:

This project was implemented in 25 CFUGs spanning five wards of Kailari Rural Municipality in Sudurpashchim Province, Nepal. All 25 CFUGs are actively engaged in capacity-building initiatives on multi-disaster preparedness, addressing hazards such as floods, landslides, earthquakes, windstorms, heat waves, cold waves, hailstorms, and forest fires. The project initiatives included 27 CFUG leaders, 24 local government representatives and 174 CFUG and community members – including Indigenous communities and youth (to construct the fire lines).

3.2 Changes due to the project:

Collective community stewardship of forest resources can generate environmental, economic, and social benefits: The Khaurahawa Shiva Community Forest User Group, located in Ward No. 7 of Chhatakpur Basanta, Kailari Rural Municipality, has been actively engaged in environmental conservation and sustainable forest management. Established in 2010 (2067 BS), the community forest covers an area of 98.79 hectares and is used by 125 households with a total population of 722 people, including 351 women and 371 men. The forest is managed by a 13-member executive committee, comprising of 8 women and 5 men, under the leadership of Chairman Mr. Lekhram Chaudhary.

Engaging male champions or local leaders to counter patriarchal barriers was also a strategy used to endorse and pave the way for women's leadership. DWRF trained and mobilised 30 male champions within the CFUG networks to actively reshape restrictive patriarchal norms and raise community awareness to prevent GBV.

Initially, the area consisted of two separate community forests Khaurahawa and Shiva which were merged in 2010 (2067 BS) to form the current Khaurahawa Shiva CFUG. Prior to its establishment, displaced families from Bhuiyaphata village had encroached upon the forest following the 2006 monsoon, leading to severe environmental degradation, forest encroachment, and threats to wildlife. These settlers were later removed and the area was formally protected as a community forest.

The forest is rich in native species such as *sal* and *sisau* (Botanical Names: *Shorea robusta* and *Dalbergia sissoo*) which have been recognised by the Government of Nepal as a spring corridor. A sub-division forest office has been established nearby to support conservation efforts. However, challenges such as population pressure, forest fires, encroachment, road construction impacts, and declining groundwater levels have continued to threaten the ecosystem.



Chairman (CFUG) Mr. Lekhram Chaudhary who is also a part of the traditional leadership structures (Valmansa) that supported better inclusion.

Photo credit:
DWRF project photos

In response, several development and conservation initiatives have been implemented. This included the DWRF's activities under the SIDRRA Project that was launched in July, that carried out awareness programmes on environmental protection, forest fire prevention and groundwater conservation activities.

While the SIDRRA Project has allocated only NPR 25,000 for the construction of one recharge pond, the Khaurahawa Shiva CFUG and the Suiti CFUG have invested up to NPR 100,000 (including in-kind support) to construct the recharge ponds. These ponds were constructed through a joint initiative between Khaurahawa Shiva and Suiti CFUGs along with the development of picnic spots to promote eco-tourism and sustainable livelihoods.



Constructing the fire lines.

Photo credit: DWRF project photos

According to Chairman of the CFUG, Mr. Lekhrum Chaudhary, the proper protection and utilisation of community forests can generate multiple benefits, including income from leaf-plate (duna-tapari) production, employment opportunities for women, fish farming in ponds, recreational development, and plantation around recharge ponds. Planned activities also include the establishment of yoga and meditation centres, children's play areas, water storage for fire control, and small dams to reduce flooding risks.

Overall, the Khaurahawa Shiva CFUG demonstrates how collective community stewardship of forest resources can generate environmental, economic, and social benefits. Through sustainable management of land, water, and forest resources, CFUGs have significant potential to enhance livelihoods while contributing to environmental conservation.

Increasing participatory forest management: The project activities made a conscious effort to increase the participation and representation of individuals in community forestry governance – from diverse castes, marginalised groups, economically disadvantaged, and socially excluded communities and women from all these groups.

At present, women are being democratically elected to leadership positions in CFUGs through general assemblies. Most CFUGs are actively engaging in activities such as public hearings, financial audits, and social audits. These measures help ensure transparent and accountable management of forest resources while involving the community in decision-making. Kailari Rural Municipality has formed a municipality-level coordination committee to support and coordinate CFUGs. At present, all community forests in the municipality are affiliated with this committee, promoting unified management and collaboration among the groups. In addition, the CFUG Coordination Committee, established in Kailari Rural Municipality, is advancing the development of standardised procedures and guidelines for effective community forest management.

Recharge ponds

Photo credit:
DWRF project photos



Proactive action towards preparedness: Following fire prevention and control training, CFUG members are actively constructing fire lines to reduce forest fire risks, with strong engagement from local governments and stakeholders. These fire lines act as barriers that limit the spread of fire, enhancing forest safety and resilience.

To enhance forest fire preparedness CFUGs also constructed recharge ponds within community forests. These ponds serve as a reliable water source for controlling fires, contributing to overall forest safety and resilience.

Collaboration with the Forest Division Office has improved, enabling timely approval of initiatives such as recharge pond reconstruction. At the same time, gender inclusion has strengthened, with more women participating in decision-making and leadership roles within CFUGs. CFUGs are also implementing more inclusive budgeting practices to address the needs of vulnerable and marginalised groups.



Joint discussion of CFUGs on constructing recharge ponds and developing picnic spots to promote eco-tourism and sustainable livelihoods.

Photo credit: DRWF project photos

Community driven welfare programmes: In Kailari Rural Municipality Ward No. 4, the Ward Office partnered with the DWRF to distribute warm blankets to marginalised households during the cold season. Training was conducted with the active participation of Dalits, women, and other marginalised groups. The community forest users committee provided nutritious food to marginalised pregnant women. Under the RESIST project, trained male champions are working within CFUGs to raise awareness among men and promote behaviours that help prevent gender-based violence in the community.

3.3 Challenges

- In the event of a fire outbreak in a community forest, ordinary firefighting equipment is often insufficient to effectively control and contain the fire. Due to factors such as difficult terrain, rapid fire spread, and limited accessibility, managing forest fires requires specialised and costly equipment along with trained personnel. Without such resources, the risk of extensive environmental damage and loss of biodiversity increases significantly.

3.4 Lessons learnt

- The construction of firebreaks – that can be done by local communities with the support of forest management officials – as a preventive measure plays a crucial role in limiting the spread of forest fires. By creating gaps in vegetation, firebreaks help contain fires within a defined area, thereby reducing the risk of extensive damage to forest ecosystems and surrounding resources.
- The construction of a recharge pond within a community forest can serve multiple purposes. The stored water can be utilised for firefighting during forest fire incidents, enhancing local response capacity. In addition, the pond can support fish farming, providing livelihood opportunities for the community. The water resource can also be used for various other needs, contributing to sustainable forest management and improving the overall resilience of the ecosystem and local communities.
- While implementing its community forest-based project, the DWRF has also been actively conducting awareness programmes addressing GBV, domestic violence, and caste-based discrimination faced by women within CFUGs. These efforts aim to promote social inclusion, empower marginalised women, and foster a more equitable and safer environment in community forest governance.

3.5 Way Forward

This project DWRF implemented under SIDRRA brought many new insights of DRR; specially dealing with forest fires. Therefore, the project has acted as a pilot in many aspects. Therefore, the learnings provide a replicable model (in community-based governance) with further research and modifications of the model. The way forward should involve implementing a few more pilot projects to come up with a refined replicable model.

When implementing programmes in community forests, addressing a broader range of environmental and disaster-related challenges, such as floods, storms, cold waves, heat waves, epidemics, and earthquakes, can significantly enhance overall effectiveness. Rather than focusing solely on forest fires, adopting a more integrated and multi-hazard approach strengthens community resilience, improves preparedness, and ensures more comprehensive and sustainable outcomes for both the ecosystem and local communities.

CFUGs are well established and continue beyond a project phase. The CFUGs are actively strengthening transparency and accountability by conducting annual public hearings and public audits of their activities. They prepare and implement annual action plans that prioritise support for poor households, women, Dalits, Indigenous peoples, and other marginalised communities. Additionally, by regularly paying annual renewal taxes for forest management, these groups demonstrate a growing sense of ownership and responsibility and continued engagement in this sector. The CFUG Coordination Committee is also actively advocating with local government authorities to develop and formalise procedures for effective community forest management. This collective commitment is contributing to improved governance and advancing the long-term sustainability of community forest management.



Participation in community forestry, women's involvement in decision-making processes

Photo credit: DWRF project photos



Chapter 4

Strengthening Community-Based Preparedness through Impact-Based Forecasting

Implemented by Practical Action Consulting (PAC), Nepal
Location: Panchpokhari-Thangpal Rural Municipality, Sindhupalchok District, Nepal

4.1 Background

Sindhupalchok is one of Nepal's most multi-hazard-prone districts, having experienced severe losses from the 2015 Gorkha earthquake and the 2021 Melamchi floods. Panchpokhari-Thangpal Rural Municipality faces high exposure to floods, landslides, and fires, with vulnerabilities amplified by limited local capacity and gaps in risk communication. Existing Early Warning Systems provide forecasts, but communities often lack the knowledge or tools to take timely protective action. This project addresses these gaps by strengthening anticipatory action, community-level risk mapping, preparedness, and coordination across upstream and downstream communities using an Integrated Impact-Based Forecasting (IBF) approach.

Project Objectives:

The project aimed to strengthen community risk assessment and early action through IBF, ensuring that hazard information is not only available but actionable at the local level. The IBF bulletin goes beyond weather forecasting, integrating weather information with local risk information by assessing their likely impacts on people, infrastructure, and livelihoods. By linking forecast information with local risk and vulnerability data, the approach supports timely early warning, preparedness planning, and anticipatory actions. Using the Missing Voice Approach, the project identifies the most vulnerable communities and ensures that the perspectives of marginalised groups are incorporated into preparedness planning.

Local government and communities are capacitated across IBF, risk mapping, risk communication, emergency response, and disaster planning. To enhance coordination, the project promotes upstream-downstream community linkages, ensuring timely dissemination of flood and rainfall alerts. Scientific data from EWS is combined with local observations and knowledge, supported by citizen science activities in schools and community events. All activities are implemented in close collaboration with the local NGO, Community Development and Environment Conservation Forum (CDECF), which brings deep knowledge of the local hazard and vulnerability context and experience of working in the region, along with field-based facilitators who speak the local language, and facilitates effective engagement with communities.



Training on disaster information management system and risk communication for municipal officers.

Photo credit: PAC project photos

Key Activities:

- Training CDMC task forces, and local government officials on IBF, Anticipatory Actions (AA), disaster information management, risk communication, and risk mapping.
- Conducting participatory risk mapping and risk communication exercises to identify hazards, vulnerabilities, and preparedness needs of the locals.
- Piloting IBF approaches to support forecast-based decision-making and early action.
- Prepare impact-based flood risk maps to support local planning and DRR.
- Facilitating upstream–downstream community dialogues to strengthen coordination and information sharing.
- Promoting citizen science and disaster awareness through school workshops and mural art activities.
- Strengthening local capacity to interpret early warning information and take timely preparedness actions.

A distinct feature of this project was the use of the Missing Voices Approach to ensure marginalised and vulnerable communities are included in preparedness planning. Community-level risk mapping was used to identify hazard-prone areas and inform early action. Strong upstream–downstream coordination was undertaken for real-time hazard monitoring and information dissemination. In addition, schools and youth were engaged in disaster awareness and limited citizen science activities.

Project Reach:

As a result of the work carried out, the project trained 6 CDMC members – including Indigenous communities on IBF, and also engaged the community in participatory risk mapping, and preparedness activities. Officials from 4 municipalities were also trained on IBF, risk communication, and BIPAD Portal¹. In addition, the older community members (18) participated in the risk monitoring and information dissemination dialogues between upstream and downstream communities and more than 120 students were educated on DRR, Climate Change Adaptation (CCA), early actions and risk communications.



Participatory risk mapping with different communities.

Photo credit: PAC project photos

¹ BIPAD Portal: BIPAD (Building Information Platform Against Disaster) is a national digital platform developed to consolidate disaster-related data and spatial information from multiple agencies into a single system. It supports DRR and DRM through modules that enable preparedness and early warning, emergency response, post-disaster coordination, and evidence-based planning and decision-making. The system is designed for use by federal to local governments, emergency operation centers, and first responders, integrating hazard maps, vulnerability data, incident reporting, and resource inventories to support risk-informed planning and anticipatory action.

4.2 Realities from the Ground

The project engagement across Panchpokhari Thangpal Rural Municipality brought forward a range of lived experiences that reflect how disaster risk is shaped not only by hazards, but also by social, economic, and institutional realities. It also shows the importance of recognising the different circumstances and dimensions (like being a single mother or a person with disabilities) that affect how individuals and their households can adapt to disasters.

Missing Voices from the Ground: Journey of Risk and Resilience

The story of Ms. Sunita Dong (33), from Ward 7, Bhotenamlang, reflects the long-term and layered impacts of disasters. Originally from Lidi in Jugal Rural Municipality, she relocated after losing one of her sons in the 2015 earthquake. However, her challenges continued after moving as she lost her husband and now carries the full responsibility of raising four children alone. With very limited land and income, her eldest daughter had to leave school, while two children continue their education, the youngest is yet too young to attend school. Sunita's concerns are deeply rooted in uncertainty and fear about her children's future.

"I have faced a lot of hardship in my life. I only hope my children do not have to go through the same suffering, but I fear they might face even more."

Her experience shows how disasters can lead to prolonged socio-economic vulnerability, especially for female-headed households, where recovery remains incomplete and fragile.

A similar intersection of vulnerability is seen in the case of Kamil Tamang (63), who has been living with a physical disability after losing his leg in a work-related accident. Supporting a large family dependent on small-scale farming and wage labour, he faces ongoing economic hardship. Previously, his family relied on bamboo-based handicrafts for income, but restrictions on forest resource use have eliminated this option. Mobility challenges further limit his access to services.

"Even to collect my disability allowance, I have to travel a long distance. When my leg hurts, even reaching the health facilities becomes difficult."

He also expressed concerns about limited access to responsive public services, pointing to systemic gaps that make it harder for persons with disabilities to cope with both daily life and disaster risks.

The experience of Purnamaya Danuwar, a single mother from Duduwar, further reveals how exclusion can compound vulnerability. After the earthquake damaged her home, the reconstruction support issued in her name was taken by her in-laws, leaving her without the means to rebuild. She was forced to relocate to a flood-prone riverbank, where she restarted her livelihood through a small tea and snacks business. Despite being aware of the risks, she continues to live there due to lack of alternatives and limited support.

"The earthquake took my house, but what hurt more was losing the support that was supposed to help me rebuild."

She also shared how access to information remains unequal.

"No one tells me about meetings or early warnings. I hear about risks only when something is already happening."

Her story reflects how social position, gender, and access to information directly influence disaster risk and recovery pathways.



Kamil Tamang as a person with disabilities, faces difficulties in mobility and access to services.

Photo credit:
PAC project photos



Purnamaya Danuwar, a single mother who was displaced due to the earthquake has no option but to relocate to a flood-prone riverbank.

Photo credit:
PAC project photos

4.3 Changes due to project interventions

The project has contributed to strengthening understanding, capacities, and dialogue around disaster risk and early action at community levels. Through a combination of training, community dialogues, risk mapping exercises, and school-based engagement, stakeholders, including CDMCs, local government representatives, and community members have been exposed to IBF, risk communication, and anticipatory action concepts.

The use of participatory approaches, particularly the Missing Voice Approach, has helped surface local risk realities and perspectives of vulnerable groups, strengthening inclusivity. While changes in institutional practice are still evolving, there are clear indications of improved awareness, clearer roles, and increased engagement around early warning and preparedness processes.

Participation and Inclusion of different community members: Participation expanded beyond formal structures, with community members actively engaged in dialogues, risk mapping, and knowledge-sharing processes. The application of the Missing Voice Approach enabled the identification of the most vulnerable communities and brought forward perspectives that are often overlooked in conventional planning processes. School-based activities further broadened participation, where students were oriented on DRR, climate risks, EWS, and early action, and are expected to share this knowledge within their households and communities.

Students were seen actively engaging in disaster risk discussions of their locality through interactive sessions, mural art, and practical learning activities, which made hazard and early action concepts easier to understand and retain. During follow-up visits, community members noted that students have started discussing these topics within their households and communities, particularly around early warning messages, safe evacuation practices, and flood preparedness. With the 2026 monsoon season approaching, this increased awareness is already influencing family-level preparedness actions, such as discussing safety measures and keeping emergency items ready.

From the students' perspective, they shared that the sessions helped them clearly understand "what to do, where to go, and how to respond" during hazards, especially flooding, which they previously only read about in textbooks. This reflects an emerging citizen science approach, where students are not only learners but also active information multipliers, helping strengthen community-wide awareness and preparedness. By observing, understanding, and sharing disaster-related knowledge within their homes and communities, they help spread awareness beyond the classroom and contribute to more informed and prepared households.



Students engaged in disaster risk interactive sessions, mural art discussions.

Photo credit: PAC project photos

Practical exercises to strengthen planning and preparedness:

The project has strengthened understanding of preparedness and early action at the community level through targeted practical exercises. Participants were introduced to IBF concepts, risk matrices, and early action protocols, enabling them to better interpret warning information and relate it to potential local impacts. Participatory risk mapping exercises supported communities in identifying hazard-prone areas, vulnerable households, and safe locations in their locality. These processes have contributed to improved contextual understanding of risk and preparedness actions.

Communities described their experience as follows. Members from upstream communities described how early warning often depends on manual efforts:

Syangbo from Yangri CDMC said, *"During floods, we must activate the siren ourselves. At night, it becomes very difficult to manage. If I am away from the village during times of crisis, there might not be anyone to inform the communities."*

At the same time, downstream communities emphasised the value of coordination and information sharing by upstream users on rainfall and river levels, so that those downstream are able to prepare earlier.

These reflections showcase the importance of upstream and downstream linkages, while also pointing to gaps such as unreliable electricity, weak network connectivity, and the need for automated systems.

Engagements with CDMCs showed growing confidence and clarity in roles following trainings and practical exercises. Participants reported improved understanding of IBF risk matrices, early warning interpretation, and task force responsibilities, which has supported better coordination and preparedness planning. The use of a simple four-color warning in IBF bulletins (green, yellow, orange, and red representing very low, low, medium, and high risk respectively) helped make forecast information more understandable and actionable for communities. Trainings conducted at the local level improved accessibility, ensuring early warning information be clearly understood by different groups, including those with limited literacy.

CDMC president from Tipeni, Motiram reflected, *"Before the training, we did not clearly understand rainfall types or how to act based on IBF warnings. Now we can link the information to what we should do. We will continue with participatory risk mapping and planning based on IBF bulletins and also focus on conducting regular CDMC meetings."*

Community members also emphasised the importance of sustaining these efforts with regular discussions and trainings so that they remain prepared and active.

Across these experiences clear insights emerged; DRG is most effective when it is grounded in lived realities, inclusive of diverse voices, and supported by continuous engagement. The project has contributed to creating spaces where these voices are heard and linked to practical actions, through risk mapping, IBF training, and community dialogue, supporting a gradual shift toward more informed, connected, and locally driven preparedness and response systems.



Locals with the risk maps they prepared of their community during participatory risk mapping activity.

Photo credit: PAC project photos

Enhanced technical understanding, role clarity and community engagement:

Capacity-building efforts focused on CDMCs and local government representatives, including trainings on IBF, risk communication, and the use of the BIPAD portal for disaster information management. These engagements have contributed to enhanced technical understanding and role clarity, particularly among CDMC task forces in relation to early warning dissemination, evacuation planning, and coordination. Community dialogues also strengthened linkages between upstream and downstream communities, supporting improved information sharing during risk periods. While institutionalisation within government systems is still in progress, the project has laid groundwork for more coordinated and informed engagement.

State officials view the project as an important contribution to strengthening risk-informed planning and disaster management at the local level. The officials receiving the training mentioned that the technical capacity-building provided to municipal and ward-level officials on IBF, AA, and risk communication improved their ability to understand the forecast information and act accordingly. The training on disaster information management system, BIPAD Portal has helped the municipal DRR focal persons access and apply disaster information for decision-making. The disaster data can now be managed in a structured manner.

Officials also valued the flood risk and vulnerability mapping outputs, which translated complex hazard data into practical planning tools for identifying high-risk settlements and prioritising interventions. The municipal authorities also expressed willingness to incorporate the recommendations from the mapping exercises into their upcoming fiscal year plans and policies. This shows a growing institutional ownership and uptake of project findings



IBF bulletin disseminated by the Department of Hydrology and Meteorology, Nepal

4.4 Lessons Learnt

Limitations on EWS can delay timely action: Despite multiple early warning channels, manual systems and network disruptions can delay timely action. Limited search and rescue equipment and resource constraints restrict community response. Certain risks, such as landslides and large-scale floods, require technical and financial support beyond local capacity, and delays in assessments can slow early action and response activities.

Technology alone does not result in better risk management: IBF offers communities better guidance on what actions to take under different risk scenarios. However, technology alone is not enough; communities need training, engagement, and contextualisation to act on early warnings. Visual tools like risk maps, IBF matrices, information in local languages, and mural arts translate complex risk information into actionable knowledge. It stresses on the need for a good combination of accurate technology and appropriate communication with deeper community engagement.

All of community approach is needed for better resilience: Inclusive approaches are essential for equitable and effective DRG. Participatory risk mapping and dialogues, along with the Missing Voice Approach, ensure local knowledge and marginalised perspectives inform preparedness. Upstream-downstream coordination enhances anticipatory action, while school engagement and mural arts help youth transmit DRR knowledge to households, embedding resilience in the wider community.

A coordinated approach can increase coverage: Strengthening coordination across CDMCs, communities, and local government enhances the impact of preparedness measures. Tools like the BIPAD portal have potential for more systematic, data-informed decision-making if institutionalised.

4.5 Way forward

Sustaining the outcomes of the project will depend on how far the momentum built within CDMCs and communities is continued. Following the training and dialogues, CDMCs have agreed on initiating regular meetings, discussing risk scenarios, and planning preparedness actions more proactively. Building on this, continued facilitation of IBF simulations, scenario-based exercises, and participatory risk mapping will be important to ensure that communities can consistently interpret IBF bulletins and translate them into early action. The installation and use of hazard and evacuation maps in public spaces, as emphasised by community members, can further support a shared understanding of risks and quicker decision-making during emergencies. Strengthening task force coordination within CDMCs, particularly in linking risk levels to clear actions, will remain critical for improving response effectiveness.

At the same time, sustaining engagement with upstream and downstream communities will be key to maintaining real-time information sharing and anticipatory coordination, especially during monsoon periods. Continued collaboration with local partners such as the Community Development and Environment Conservation Forum (CDECF) will support consistent community-level facilitation and follow-up. There is also a scope to build on current practices by strengthening dual communication systems (manual and digital) and addressing locally identified gaps such as early warning equipment and rescue resources. Engagement with local government can further support these efforts, particularly in improving communication systems, supporting community preparedness initiatives, and gradually strengthening the use of tools such as IBF bulletins, risk maps, and the BIPAD portal within local processes.



Understanding the IBF scenario building process.

Photo credit: PAC project photos



Chapter 5

Projects Come and Go: How Do Communities Retain Impacts and Information of Development Projects?

Implemented by Institute of Disaster Management and Vulnerability Studies (IDMVS), University of Dhaka
Location: Char Jatrapur and Char Ghughumari, Kurigram District, Bangladesh

5.1 Background

Kurigram, one of Bangladesh's most flood-exposed districts, is located at the confluence of the Brahmaputra-Jamuna River system bordering the Indian state of Meghalaya. Recurring monsoon floods, riverbank erosion, and the seasonal displacement of char (river island) communities define everyday life here. Over the years, development organisations have invested heavily in community-based disaster risk management (CBDRM) initiatives like enhancing community preparedness, training volunteers, and establishing early warning dissemination networks, and so on. Yet a persistent pattern has emerged that with the end of a project or termination of funding for it, all community-led activities gradually decrease or come to an abrupt end. Thus, many of the gains, including the lessons learnt, fade away to weaken the DRR impacts and community resilience.

Project Objective:

To address the problem, the Institute of Disaster Management and Vulnerability Studies (IDMVS) at the University of Dhaka implemented a sub-grant research initiative under the SIDRRA programme, commissioned by the DN network. The central question driving the research was "What actually sustains after a project phases out?" In partnership with three implementing organisations, Centre for Disability in Development (CDD), Association for Alternative Development (AFAD), and Friendship Bangladesh, IDMVS analysed four completed DRM projects in Kurigram following a participatory community-based process to co-design a tool. This is called the Project Retention Tracker for Disaster Risk Management (DRM), which is capable of measuring sustainability from within the communities rather than from outside.

Key Activities:

- Planning, Inception, and Desk Synthesis - covering meeting with partners, a multi-stakeholder consultation workshop in Kurigram involving 13 national and local NGOs/Community Based Organisations (CBOs) and a desk review profiling ten historical DRR initiatives, narrowing to case studies for deep-dive retention analysis
- Field Data Collection and Group Mobilisation – to gather field data in the char islands, to establish 2 Community Tracker Piloting Groups (CTPGs) to transition community into data owners /stewards and to conduct Key Informant Interviews and Focus Group Discussions with state officials and community.
- Field-Based Validation and Tool Co-Design – included the drafting of the tracker tool and presenting it to local NGO networks in Kurigram Sadar to test real-world feasibility. It was followed by grassroots validation workshops with CTPG networks in the remote chars, checking for clarity, usability, and local-language accessibility
- Final Handover, Dissemination, and Close-Out – the tracker with the 30 indicators across six balanced components and a user manual was finalised. The tracker and manual were used to carry out orientation sessions with partner field networks to integrate the tool into their ongoing programmes. A formal administrative handover was also done with the District Commissioner and other state officials aimed at getting the indicators incorporated into public development budgets. In the close out phase the CTPGs were graduated to fully autonomous units, with the intention to continue to capture data on projects without external prompting

Project Reach:

The information gathering exercises reached out to men and women, including those with disabilities in the community, local state officials and NGOs.



Discussions with the key implementing partners on their experience with project implementation in Kurigram.

Photo credit: IDMVS project photos

5.2 Reality from the ground: A Predictable Pattern of Collapse

The research began with an uncomfortable reality articulated plainly by local NGOs. Across Kurigram, disaster preparedness committees often existed in name only once external funding stopped. Volunteer networks trained during project periods gradually dissolved. Monitoring systems shut down. Communities were left with the knowledge that something had been built for them but without the institutional support to keep it standing.

"Our local disaster management committees often exist only on paper. Without funding or training they can't function, and that reduces community ownership once the NGOs leave."

— NGO Practitioner, Kurigram Stakeholder Consultation

The IDMVS retention analysis, drawing on structured interviews with implementing organisations and field visits to project locations in Kurigram, documented this pattern across four completed projects. Using a six-dimensional framework: community ownership, institutional alignment, funding continuity, inclusion and equity, knowledge retention, and accountability mechanisms, the team assessed what conditions enabled or blocked the continuation of DRM outcomes after project closure.

Two geographic areas became focal points for the community engagement work: Char Jatrapur and Char Ghughumari in Saheber Alga Union. Both are remote and flood-prone chars, reachable only by boat. In Jatrapur's case, after a horse-cart journey to the riverbank and roughly ninety minutes on the river. This isolation was not merely a logistical inconvenience. It was identified as a structural driver of vulnerability, creating what fieldworkers termed an 'NGO vacuum' where few organisations remained active after their project cycles ended.

"Being three hours away from the mainland makes us feel isolated, but these floating toilets and gardens prove that our isolation doesn't have to mean our destruction."

— Resident, Char Ghughumari, Saheber Alga

5.3 What the Research Found: Six Dimensions of Retention

Across the four analysed projects, CDD's disability-inclusive preparedness initiative, AFAD's BMZ-PT livelihood and resilience project, and Friendship's two CIDRR interventions, the research identified recurring patterns in both what lasted and what did not.



Figure 1: Findings under the six dimensions of retention that were also weighted by the stakeholders (Source: IDMVS)

The community-based structures developed by NGOs proved to be the most durable retention mechanism. Self-Help Groups established by CDD continued to meet periodically in several locations and remained as active platforms for persons with disabilities to discuss preparedness issues. AFAD's Self-Reliant Groups (SRGs) maintained group savings practices even after project support ended, with members contributing to shared funds that could provide emergency liquidity during floods. Friendship's Disaster Management Committees continued operating in a number of communities, primarily driven by local volunteers.

However, the same structures also revealed their fragility. In char areas, high seasonal migration meant that trained volunteers frequently relocated, breaking the continuity of preparedness networks. Engagement with local government disaster management institutions remained largely informal, committees interacted with Union Disaster Management Committees (UDMCs) during floods but had no formal, sustained coordination mechanisms. And without refresher training or structured follow-up support, learning (knowledge/lessons) from the project began to erode.

On funding and resource continuity, the research found a critical asymmetry: projects that embedded economic mechanisms like savings groups, livestock transfers, skill-based livelihood activities demonstrated significantly stronger retention than those that relied on volunteerism alone. AFAD's approach, which combined community organisation with income-generating activities and savings, produced higher levels of continued collective action. This finding reshaped how the research team and community members alike understood what 'sustainability' actually required.

"A few cash in hand disappears quickly, but a goat is a growing asset; by focusing on livestock instead of just cash, we are building a safety net that stays with us."

— Resident, Saheber Alga Char

5.4 The Community Tracker Piloting Groups (CTPG) and the Tracker

The most transformative element of the IDMVS project was not the analytical framework itself, it was the decision to ground the Retention Tracker's design in community experience rather than institutional logic. During field visits to Char Jatrapur and Char Ghughumari in November and December 2025, the team established Community Tracker Piloting Groups (CTPGs): locally constituted bodies whose members were positioned not as research subjects but as 'Data Stewards', people with the authority and responsibility to maintain, monitor, and interpret retention data themselves.

The distinction mattered profoundly to community members. In a context where data about communities had historically flowed to NGO offices and district administration files, rarely returned to the people it described, the CTPG model represented a deliberate inversion. Community members were trained to track the continuity of DRM interventions in their own areas, using indicators they helped design. According to a member of a community group:

"In the past, we felt like 'NGO data' was something for people in offices, but through the CTPG, we are finally turning our lived experience and local knowledge into evidence."

— CTPG Member, Char Ghughumari

Validation workshops held in Kurigram between March and April 2026 brought together community members, NGO representatives, and local government stakeholders to review the draft tracker. Feedback from these sessions was consistent: the tool needed to prioritise simple, binary or scale-based indicators that community members could update without technical assistance. It also needed to capture what communities themselves considered evidence of resilience, not just committee meeting records, but, for example, the survival of goat herds, the continued operation of floating gardens, the activity level of emergency savings funds. A contemplative field animator says:

"We always report on what we did while the money was there, but we are blind to what happens two years later. This tracker is the 'eye' we have been missing to see which of our seeds actually grew into trees."

— NGO Representative, Kurigram Sadar

Fieldwork in Char Ghughumari provided a vivid illustration of what community ownership could look like when properly nurtured. When heavy rainfall destroyed a key market access road, residents did not wait for an organisation to file a report or seek funds, they mobilised independently and repaired it. The team documented this as a 'local ownership case study': concrete, observable evidence that the project's ethos of community agency had taken root.

5.5 'Inclusion' as a Retention Condition

A distinctive thread running through the IDMVS work was its insistence on 'inclusion' not as an add-on concern but as a core retention condition. CDD's project on disability-inclusive humanitarian preparedness demonstrated that when persons with disabilities are meaningfully involved (through Self-Help Groups, flood first responder networks, and feedback channels) they become active agents in sustaining preparedness systems, not merely beneficiaries of them.



Initial data gathering session with representatives of NGOs implementing projects in Kurigram.

Photo credit: IDMVS project photos

Retention analysis of the CDD initiative found that disability Self-Help Groups remained active in several communities after project closure, continuing to provide both a social support network and an informal accountability channel. Flood first responder volunteers trained through the project retained their preparedness knowledge and continued to be recognised by community members as resources during flood seasons.

The CTPG validation process in 2026 built on this finding explicitly. Female CTPG members raised gender-specific retention barriers, notably that livelihood interventions for women, such as sewing or poultry, were frequently undermined after project closure by the logistical isolation of the chars, which cut women off from the markets on which their income depended. These insights were incorporated into the tracker's design, with market access connectivity added as a retention indicator for livelihood-linked interventions. In this connection a CTPG member in Ghugumari has this to say:

"We used to think data was only for experts in offices. But through the CTPG, we found a way to turn our real experiences into evidence that matters. Now, we're not just receiving help; we're also measuring our own strength."

5.6 Retention Tracker: A Tool Built from the Ground Up

By early 2026, the DRM Project Retention Tracker had moved from a conceptual draft to a community-validated instrument. Its six analytical dimensions (described in section 5.2) emerged not from pre-existing theory but from the empirical evidence gathered across four completed projects and two rounds of deep community engagement in Kurigram's char areas.

The tracker is designed as a research and advocacy tool rather than a routine project monitoring system. Its primary purpose is to generate structured evidence on which DRM interventions sustain themselves, under what conditions, and for how long. By translating the six retention dimensions into measurable indicators, it offers development organisations, local government actors, and community members a shared language for discussing sustainability, one grounded in the realities of flood-exposed Bangladesh rather than donor reporting templates.



Jatrapur char relies on boats and horse carts for transportation and the area's remoteness significantly increases their vulnerability during disasters.

Photo credit: IDMVS project photos

5.7 Challenges

The challenges encountered were mainly institutional:

1. Accessing clear baseline metrics was consistently delayed by slow government bureaucratic processes and the confidentiality protocols of adjacent NGOs. The project utilised the combined local footprints of the local partners (AFAD, CDD, and Friendship) to cross-check data and maintain communication across sub-districts despite administrative delays.
2. Operational transitions – administrative transfers as well as the temporary absence of elected local government bodies extended the necessary advocacy timelines required to secure formal agreements with Union Parishads. These are also the main reasons why institutional memory is weak.
3. Aligning the schedules of diverse stakeholders (District Commissioner, NGO executives, and char group leaders) within the final weeks required intense logistical management.



Initial data gathering session with representatives of NGOs implementing projects in Kurigram.

Photo credit: IDMVS project photos

5.8 Lessons Leant

For the practical application of the tracker - for community-level Data Stewardship - to maintain a tracking system without NGO support requires tools which avoid dense jargon and use simple, scale-based or binary indicators. In addition, standard M&E tracking focuses purely on immediate outputs (e.g., numbers of training events held). Sustained disaster resilience requires tracking long-term outcome retention (such as asset survival and committee functionality over multiple hazard cycles).

Several lessons from this initiative carry relevance beyond Kurigram. Community ownership is necessary but not sufficient: structures formed during project periods survive longer when they are tied to tangible economic benefits such as savings, livestock assets, and marketable skills. Furthermore, to achieve equity for marginalised individuals – especially more targeted intervention for people with disabilities for example – disability targeted design, programmes and funding is crucial rather than surface-level quota checklists.

Institutional alignment with local government bodies matters, but informal coordination during emergencies is a fragile substitute for formal integration. Inclusion must be built into retention design from the outset; without it, the most marginalised community members are excluded from sustaining what projects create.

What the IDMVS experience fundamentally demonstrates is that the communities most exposed to disaster risk are capable of monitoring and sustaining resilience systems when given the tools, the trust, and the institutional backing to do so. The Retention Tracker's core innovation is not methodological, it is relational. It treats community members as the primary custodians of knowledge about their own resilience, rather than as subjects whose vulnerability requires external measurement.

"Our committees often exist only on paper once funding stops. If this tracker can show the government exactly where the 'NGO vacuum' is, perhaps they will realise that a committee without a budget is like a boat without a hull – it simply cannot float during a crisis."
— NGO Practitioner, Kurigram

5.9 Way Forward

The IDMVS, University of Dhaka, will lead the overarching strategy for the framework's integration and high-level policy advocacy. IDMVS will work closely with government institutions, development partners, and humanitarian organisations to integrate the Retention Tracker into existing DRM planning, monitoring, and evaluation systems. Formal engagement with UDMCs and relevant government agencies will strengthen institutional ownership and ensure that sustainability becomes a measurable component of disaster resilience programming.

To execute the immediate practical application of this model, strategic field piloting and partner deployment will roll out across partner networks this year (2026). Specifically, the partner organisation AFAD will integrate the Retention Tracker into their projects to execute its primary field-level piloting phase. Following this initial rollout, AFAD will systematically utilise the framework to track sustainability across all of their future project lifecycles. Alongside AFAD, partner organisations Friendship and the CDD will concurrently adopt and deploy the tracker within their respective regional DRR and climate adaptation portfolios to ensure widespread institutional adoption.

On an institutional level, deep alignment and policy integration will remain a core focus of the roadmap. Strategic collaborations will be forged to work closely with government institutions, development partners, and humanitarian organisations to embed the tracker directly into existing DRM planning, monitoring, and evaluation systems.

At the grassroots level, the initiative will focus heavily on data stewardship and the strengthening of community platforms. The CTPGs established during the foundational phase of this project will be worked as permanent, community-based 'Data Stewardship' platforms. Through simplified digital and paper-based reporting mechanisms, these grassroots data groups will be fully empowered to independently monitor retention indicators over multiple hazard cycles. This localised approach enables communities to generate their own evidence base, successfully shifting their role from passive aid beneficiaries to active, self-reliant decision-makers.

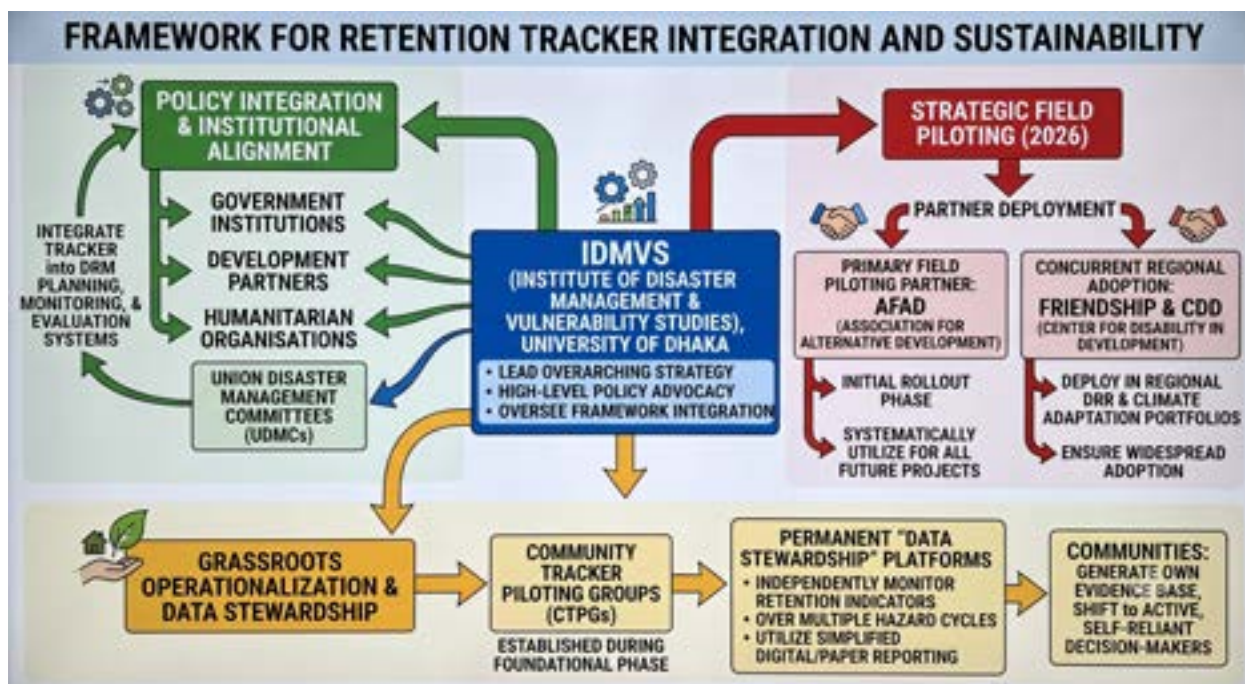


Figure 2: Framework for Retention Tracker Integration and Sustainability (Source: IDMVS)



Chapter 6

Moving from Risk to Resilience - Lessons Learnt from Project Implementation

This chapter draws together the key lessons and best practices emerging from the four case studies presented in Chapters 2 through 5, organised according to the SIDDRA framing of local-level DRG introduced in Chapter 1. Rather than treating each project's experience in isolation, this synthesis reads the four case studies against the same two principles and six related outcomes set out in Section 1.4, asking not only what each project achieved, but where, collectively, the four experiences confirm, extend, or complicate the wider literature discussed in Chapter 1.

6.1 Principle 1: Accountable and Transparent DRG

Principle 1 is framed around the obligations of duty-bearers: putting in place legal and policy provisions, institutional mandates, and resource flows that are visible, monitored, and accountable to the public (see Section 1.1). Across the four case studies, this principle surfaced through three related outcomes.

1) Improved DRM/DRR/CCA Supported by Legal and Policy Structures and Capable Institutions

A key lesson emerging across the case studies is that local governance systems become more effective when guidelines, procedures, and technical knowledge are translated into practical tools that communities and local institutions can understand and use. All four projects produced key documents in local languages:

In Pakistan, HWA developed a District Disaster Response Framework (DDRF) in the local language, increasing awareness and understanding of both the state's and the community's roles in disaster preparedness and response.

In Nepal, DWRF developed a Forest Fire Resource Manual in the local language, now used as a key reference for orienting Community Forest User Groups.

Also in Nepal, PAC found that technical knowledge without appropriate risk communication does not translate into behavioural change. The project's Impact-Based Forecasting (IBF) approach paired technical sessions with state officials with a deliberate focus on how risk information links to decision-making and preparedness — communicated through IBF guidelines provided in local languages and simplified with visuals to aid wider awareness.

In Bangladesh, IDMV developed its manual and retention tracker in local languages, allowing communities to manage the tool without external support.

These documents and trainings, made available in local languages, bridged systemic communication gaps and increased both transparency and ease of implementation. This may look like an obvious step, but one that falls short at the ground level where the emphasis is on improving the technical aspects of forecasting and EWS and does not put enough emphasis on risk communication. Timely, accessible, understandable and trustworthy communication is needed to be truly effective.

The projects also worked to build local-level ownership of the guidelines and plans they developed.



The fire management manual in a local language.

Photo credit: DWRF project photos

HWA worked with local authorities to develop the DDRF in a way that also built government ownership of the framework, giving communities and officials a shared reference point for disaster preparedness planning. Frameworks are often prepared by consultants or external organisations, as was the case here — but HWA took deliberate steps to identify local needs through its baseline study and several rounds of engagement with local authorities and communities to bring in their ideas and ground it in the local experience and expectations to generate buy-in.

The IDMVS study found that CBDRM initiatives have a persistent pattern: with the end of a project or termination of funding community led activities do not continue. Often documentation on these efforts is also not available and projects reinvent the wheel resulting in inefficient DRM. The IDMVS's DRM Project Retention Tracker offers a prototype response to deal with this problem: a practical, simplified way of assessing whether DRR investments are actually sustained. A key enabling condition for the tracker's success is a structured handover and exit strategy between sub-national and local government layers, retaining information within the community itself — supported by an Institutional Continuity and Knowledge Transfer Checklist (ICKT) that IDMVS developed for other organisations to adopt.

2) Better Two-Way Coordination and Collaboration Among Stakeholders

Much of the literature on DRG holds that effective local-level DRG depends on strong vertical and horizontal coordination between communities, local governments, civil society organisations, and other stakeholders (see Section 1.3). Each project approached this on a different scale and through different mechanisms.

PAC Nepal demonstrated the value of two-way communication through upstream-downstream dialogues, bringing communities together to exchange information, discuss shared risks, and coordinate responses. This showed that coordination has to work not only between officials and communities in a single location, but with enough granularity to address links between communities positioned differently along the same river system.



Sharing technical information through murals and pictures to improve risk communication.

Photo credit: PAC project photos



Women taking up non-traditional roles and are recognized as fire fighters

Photo credit:
DWRf project photos

DWRf showed how better collaboration can strengthen local forest management while creating benefits on both sides. Their work engaged both formal and informal governance actors — traditional leaders (Valmansa), forest authorities, local governments, and women-led CFUGs — and established a municipality-level coordination mechanism to advocate for combining DRR and forest resource management. Thus showing the value of coordinating across sectors. Linking government structures with traditional leadership, and securing commitments from local authorities to allocate resources for forest fire management, are notable examples of accountable and transparent local-level DRG in practice.

HWA offered a classic example of strengthened two-way communication, working to institutionalise frequent, structured coordination meetings between marginalised community groups — through the peasant women's trade union members — and district-level government departments such as the DDMA focal person. This bridge integrated women-led trade unions directly into state coordination networks, creating pathways for local concerns to reach decision-makers while also improving the flow of disaster information from government agencies back to communities. Structures like these have to contend with existing power hierarchies, and depend heavily on state officials accepting that local communities — especially women and minority groups traditionally excluded from consultation — can make a valuable contribution.

IDMVS's research pointed to a structural reason why this kind of coordination so often fails to last: it tends to remain informal, and informal coordination collapses once a development project ends. This underlines the importance of institutionalising relationships between community groups and local government structures so that coordination survives beyond the project cycle — and of retaining project knowledge itself, so that future initiatives are not forced to rebuild what already existed.

3) Development of Functional, Accessible, and Disaggregated Data and Information Systems

Translating or simplifying scientific information into actionable tools matters as much as generating the data in the first place: information that exists but is not understood or acted upon does little to reduce risk.

PAC's participatory visual maps simplified IBF matrices, converting abstract data into practical planning knowledge for local governments and households alike. The project showed that data becomes valuable only once communities understand its significance and can act on it — visual tools such as maps and mural art helped communities interpret early warnings and connect them to specific preparedness actions. Following capacity-building training, local CDMCs committed to shifting away from reactive behaviour, establishing regular, self-sustained meetings to analyse upcoming risk scenarios and plan early action based on recurring IBF bulletins.

IDMVS challenged a more basic pattern: data is routinely collected from communities but rarely returned to them. Its retention tracker shifts data collection from external parties and state officials to the community itself, through the CTPGs that convert residents into 'Data Stewards' rather than passive subjects of research. Whether this model endures beyond the project period remains to be seen, but it changes the basic relationship between communities and their own data — letting them track their own resilience metrics and hold authorities accountable to them, rather than the reverse.

6.2 Principle 2: Inclusion, Participation, and Collective/Collaborative Actions

Principle 2 is oriented around rights-bearers rather than duty-bearers: ensuring that vulnerable, marginalised, and underrepresented groups are treated as rights-holders with a stake in decisions, not passive recipients of aid (see Section 1.1). This, too, surfaced through three related outcomes across the four case studies.

1) Meaningful Participation, Equal Opportunity, and Empowerment for All Groups

The ability to identify and genuinely include different community members in DRR activities is a value nearly every DRG framework claims to hold, and yet it remains one of the hardest outcomes to achieve in practice (see Section 1.3). It requires recognising communities not as victims or passive beneficiaries of a project, but as partners in it. Across all four projects, meaningful participation extended beyond consultation, creating real opportunities for marginalised groups to influence decisions and take part in implementation.

Identifying who needs to be included also requires a deliberate methodology. PAC's 'Missing Voices' approach improved bottom-up planning by mapping and incorporating the distinct perspectives of women, persons with disabilities, and other socially marginalised groups who are routinely excluded from risk assessment and preparedness planning.

Local champions and local ownership mattered just as much as methodology — seen in trade union leaders and members volunteering as trainers (HWA), community members joining risk communication task forces (PAC), and residents carrying project knowledge beyond its original reach (IDMVS). All four projects worked to build intersectional approaches into their trainings and decision-making forums, actively placing women in roles historically held by male elites — as frontline firefighters or community trainers — and demonstrating that this is achievable in practice. Marginalised groups, especially women and Indigenous communities, were supported to take seats at decision-making tables and assume leadership roles (DWRF, HWA, PAC). In DWRF's CFUGs for instance, an inclusive institutional process allows women to be democratically elected to executive

leadership through general assemblies, with budgets intentionally allocated to address the specific needs of marginalised members.

Engaging male champions and local leaders to counter patriarchal barriers was another deliberate strategy: DWRF trained and mobilised male champions within CFUG networks to actively reshape restrictive norms and raise community awareness to prevent GBV.

2) Readiness for Multi-Stakeholder Engagement

Partnering with NGOs already established on the ground let projects extend their reach efficiently, drawing on field officers with native-language fluency and existing trust within target communities.

Youth-led citizen science offered a creative way to engage children and young people directly — building their interest in disaster risk while also generating localised data that fed into decision-making.

Building on, or complementing, existing structures rather than creating new ones from scratch was a strategy that consistently delivered more value for the resources invested. HWA and DWRF deliberately anchored their work in legally registered, pre-existing CBOs instead of forming fragile ad-hoc committees prone to collapse once a project ends. : HWA worked through established trade unions rather than creating new groups, DWRF built on the broader RESIST programme of DCA and existing CFUG systems, and PAC strengthened existing CDMCs and local coordination mechanisms rather than introducing parallel structures. This approach bypassed the delays of group formation, allowed activities to start immediately, and gave advocacy and risk-tracking work a better chance of continuing after the external project concluded. By the end of the SIDDRA project, women-led trade unions in Sindh, CFUGs in Kailali, Community Disaster Management Committees in Sindhupalchok, and Community Tracker Piloting Groups in Kurigram all continued to function as platforms through which communities could engage government authorities, technical agencies, and civil society organisations.

3) Fostering a Risk-Aware Culture

Disaster preparedness becomes sustainable once it is embedded in everyday life as a culture of risk awareness, rather than treated as a one-off intervention. Communities anticipate and respond to risk more readily when disaster knowledge is built into daily practice, and providing information, training materials, and guidance in local languages and accessible visual formats strengthens this further by making risk information easier to understand, retain, and apply. The need for trust is also a key element in ensuring that risk communication results in action.

HWA's practical, village-level disaster simulation drills prepared peasant women and rural workers to respond to overlapping hazards — floods, earthquakes, forest fires, heatwaves, cyclones, and pandemics — dynamically rather than by rote.

Moving beyond a purely reactive position, trained CFUG members in Nepal worked with local authorities and traditional leadership to build nature-based mitigation infrastructure proactively, including water recharge ponds and extensive fire lines to physically slow the spread of forest fires. These interventions delivered benefits well beyond DRR: recharge ponds support fish farming, irrigation, and raw materials for small enterprises, while also functioning as community and recreational spaces. By tying disaster mitigation to everyday socioeconomic needs, these measures strengthened both resilience and community ownership, improving the odds that they will be sustained over the long term.

PAC's citizen science approach — combining participatory risk mapping, community dialogues, school-based activities, mural art, and awareness campaigns — helped shift DRR from a technical subject into an everyday community concern.

6.3 Common Challenges in Advancing Local-Level Disaster Risk Governance

The four sub-grant projects demonstrated the real potential of decentralised, inclusive DRG. But translating DRG principles into practice at the local level also surfaced several challenges common across all four experiences.

1) Resource Constraints and Sustainability

One of the most consistent challenges was the limited availability of financial and technical resources to sustain locally led initiatives. While communities and local institutions showed strong willingness to engage, many interventions had to be adapted to fit available budgets. This highlighted the difficulty of institutionalising decentralised risk governance without adequate long-term investment.

2) Language and Localisation of Risk Information

Applying local-level DRG requires translating technical disaster risk information into local languages and culturally appropriate formats. Communities understood and responded better when information was shared through practical demonstrations, visual tools, and familiar local terms. However, limited technical capacity to translate complex information into local contexts, combined with the presence of multiple languages and dialects in different areas and the need for modes of communication for persons with disabilities (braille, sign language) made effective communication and information sharing challenging. Language barriers also affected the communication of lessons learned, particularly through local partner organisations, and communication became more difficult whenever information had to pass through multiple layers of stakeholders, increasing the risk of delays, misinterpretation, or loss of detail.

3) Remoteness and Unequal Access

Some target communities were located in remote riverine and geographically isolated areas, such as the char communities in Bangladesh, where transportation and communication infrastructure were limited. Through the SIDDRA project, dedicated efforts and resources were invested to ensure that the perspectives and experiences of these communities were meaningfully captured and reflected in project outcomes. The experience demonstrated both the importance of targeted support for reaching marginalised populations and the significant barriers that geographic isolation creates for inclusion, participation, and access to DRG processes.

PAC Nepal's experience highlighted a related point: vulnerability is highly localised and cannot be effectively addressed through uniform municipal-level programming. Household vulnerability surveys revealed significant differences in housing conditions, access to early warning information, distance to safe shelters, and availability of essential services, even within the same community. Broad municipal approaches risk failing to recognise the households facing the highest levels of risk, underscoring the need for settlement-level analysis and targeted preparedness interventions.

Achieving true intersectional inclusion is also a serious challenge. All projects show the possibilities and benefits of engaging with and working with marginalised women – mainly through community groups. While these groups and areas also had better representation of indigenous groups and minority communities, efforts to reach persons with disabilities was less successful. This requires consciously designed initiatives with targeted efforts for people with disabilities, older people, or youth — this a crucial need going forward in project implementation.

4) Coordination Across Multiple Actors

Decentralised and inclusive DRG depends on collaboration among communities, local governments, civil society organisations, and, in some contexts, traditional leadership structures. This coordination was often time-consuming, and shaped by administrative procedures, regional and local political conditions, and differing institutional priorities. Establishing effective two-way communication and decision-making mechanisms required significant facilitation and relationship-building.

The case study experiences also did not tackle vertical coordination and collaboration at length but concentrated more on demonstrating what is possible at a local level. The need for a national level acceptance is also key to ensuring the that political will, the mandate and resources are allocated at the local level for long term sustainability.

5) Knowledge Retention and Continuity

A final challenge was ensuring that data, lessons, and community knowledge remained accessible once project activities ended. The projects consistently pointed to the need for community-owned information systems and structured retention mechanisms, to avoid future disaster risk initiatives having to start from zero. These also however come with uncertainties regarding whether communities are willing to continue and if there will be a value – a return in the investment they make.

6.4 Conclusion

These case studies confirm some elements in the central argument set out in Chapter 1 that local-level disaster risk governance is more effective in delivering disaster responses and building resilience. It provides some insights on how to translate the frameworks into practice as well as on challenges and shortcoming that need to be addressed going forward. It points to the need for wider application and innovation for greater success as well as better evaluations and documentation of the experience. Thus, while these projects have made a good start, further efforts will be needed to improve local-level disaster risk governance.



Livestock protection measures in place after the DRR training.

Photo credit: HWA project photos

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