



2019 - 2024

# EMPOWERING LOCAL COMMUNITIES FOR ENHANCED FLOOD RESILIENCE IN NEPAL

*FINAL REPORT ON THE FLOOD RESILIENCE PROGRAM*





The Zurich Flood Resilience Alliance is a multi-sectoral partnership which brings together community programmes, new research, shared knowledge and evidence-based influencing to build community flood resilience in developed and developing countries. We help people measure their resilience to floods and identify appropriate solutions before disaster strikes. Our vision is that floods should have no negative impact on people’s ability to thrive. To achieve this, we are working to increase funding for flood resilience; strengthen global, national and subnational policies; and improve flood resilience practice.

Find out more: [www.floodresilience.net](http://www.floodresilience.net)



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## ACKNOWLEDGEMENTS

*We extend our heartfelt gratitude to all those who have been part of this journey.*

*To our dedicated team members, both past and present, your hard work, passion, and innovative spirit have been the backbone of our initiatives. Your tireless efforts, often under challenging conditions, have transformed lives and strengthened communities.*

*We are profoundly grateful to our community partners and local leaders. Your collaboration, trust, and local knowledge have been invaluable. We also extend our appreciation to the partner organisations that have worked alongside us. Your cooperation and shared vision have been crucial in advancing our goals and amplifying our reach.*

*To the residents of the communities we serve, thank you for your resilience, courage, and active participation. Your stories of hope and perseverance inspire us daily and drive us to continue our work with renewed vigor.*

*As we reflect on the past five years, we are filled with pride for what we have achieved together and optimism for the future. Let us continue to work hand in hand, building on our successes and forging new paths toward a resilient and sustainable Nepal.*





*[Above, below]: District simulation exercise, August 2024. Nepal Red Cross Society*



# EXECUTIVE SUMMARY

Globally, flood risk is a major concern, with floods often leading to substantial economic and social ramifications that are projected to increase in the future. Floods, landslides, and earthquakes are the most common hazards in Nepal. This report presents the culmination of efforts led by the International Federation of Red Cross and Red Crescent Societies (IFRC), in collaboration with the Nepal Red Cross Society (NRCS), as a member of the Zurich Flood Resilience Alliance, in enhancing flood resilience through a focus on strengthening disaster risk governance and Early Warning Systems.

## PILLARS OF CHANGE

In this report, **two fundamental pillars of change** are explored which have led to significant impact at both the local and national level as a result of the project's work between 2019 and 2024:



**The Municipal Disaster Risk Governance Assessment (MDRGA) Tool empowers municipal authorities to review the current status of disaster risk reduction and management governance, identify and take action on needs and priorities.**



**Early Warning System related to floods and heat waves have been strengthened through national level dialogue, local policy support and training and workshops to increase capacities including developing plans.**

Leveraging the humanitarian diplomacy and auxiliary role of NRCS, the project engaged deeply with key disaster resilience actors at the local and national levels by directly supporting community-led actions, building capacity and strengthening the enabling environment. This report explores the achievements, challenges and lessons learned from the project and poses a set of recommendations for future initiatives.



Work with others and develop alternative strategies for community engagement.



Carefully plan for processes that depend on engagement with key stakeholders.



Establish a risk management strategy and monitor risk regularly.



Disseminate tools among different stakeholders at the local level and integrate into ongoing initiatives.

The **Zurich Flood Resilience Alliance** (the Alliance) is a multi-sectoral partnership bringing together actors in the humanitarian, development, research, and private spheres to strengthen climate resilience. Driven by the vision of a future where floods have no negative impact on people's and businesses' ability to thrive, the Alliance combines community programs, new research, shared knowledge, and evidence-based influencing to build community flood resilience.

As the Alliance celebrates over ten years of operation, the collective impact of increasing flood resilience through community actions, scaling up and influencing work across **10 partners** and more than **25 countries** has reached over

**3 MILLION PEOPLE**


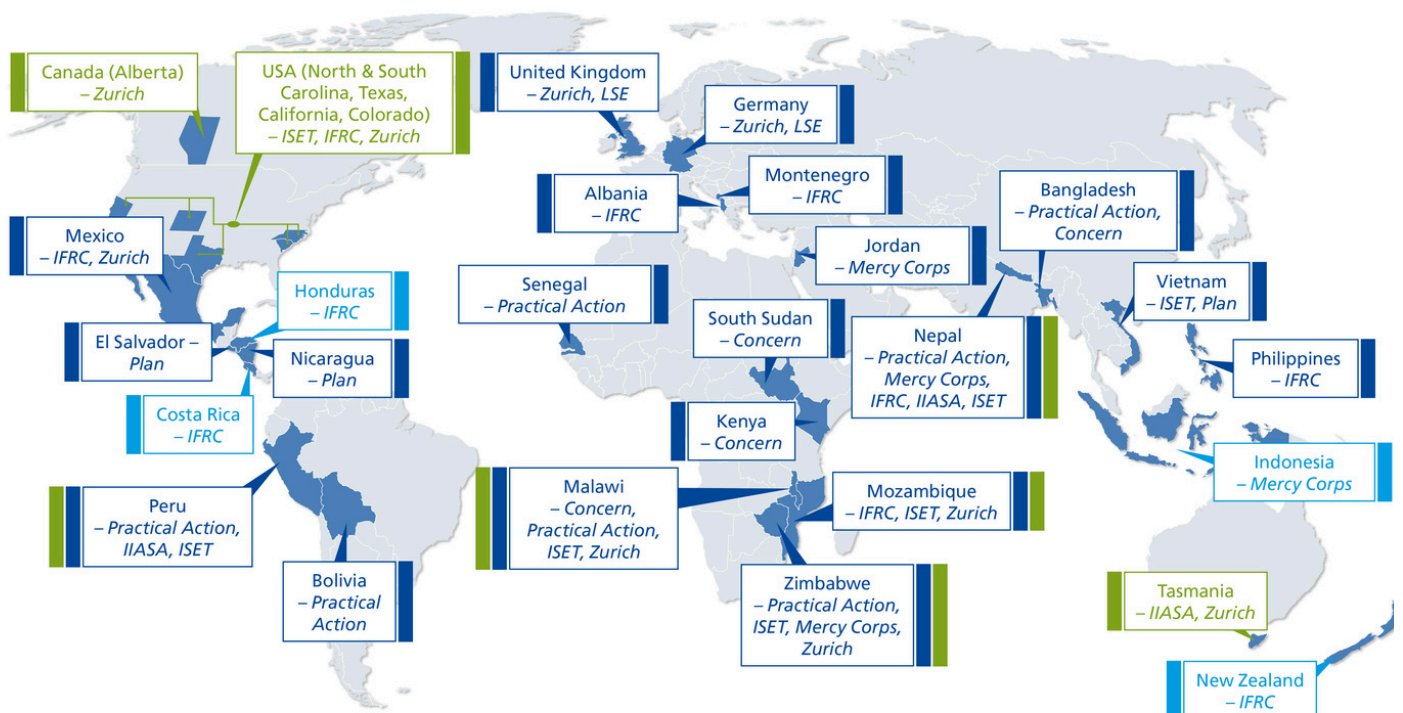


Figure 1: Alliance activities and programs across the world



Countries where we:

- Implement a full flood resilience programme
- Have a limited programme to improve flood resilience policy
- Have carried out a Post Event Review Capability to learn from a disaster

\*Accurate in January 2021

In partnership with:

Powered by Z Zurich Foundation





Meeting of key actors as part of the district simulation exercise, August 2024. Nepal Red Cross Society

Figure 2: Scales of impact

## LOCAL

Deep and lifelong changes in mindsets and practices related to flood resilience.



## PROVINCIAL

Replication and scaling up of best practice to broader populations and key sectors.



## NATIONAL

Integration of community priorities in national plans, policies and budgets.



## GLOBAL

Contribution of Alliance knowledge and experience to global initiatives.

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*Multi-sectoral partnerships bring together different points of view - governments, non-profit organisations, academia, private companies such as Zurich and most importantly, community perspectives - to work towards a common goal. This collaboration allows for the sharing of resources, experiences, and ideas, leading to more effective and coordinated efforts.*

Francisco Ianni, Senior Officer – Floods Resilience, IFRC

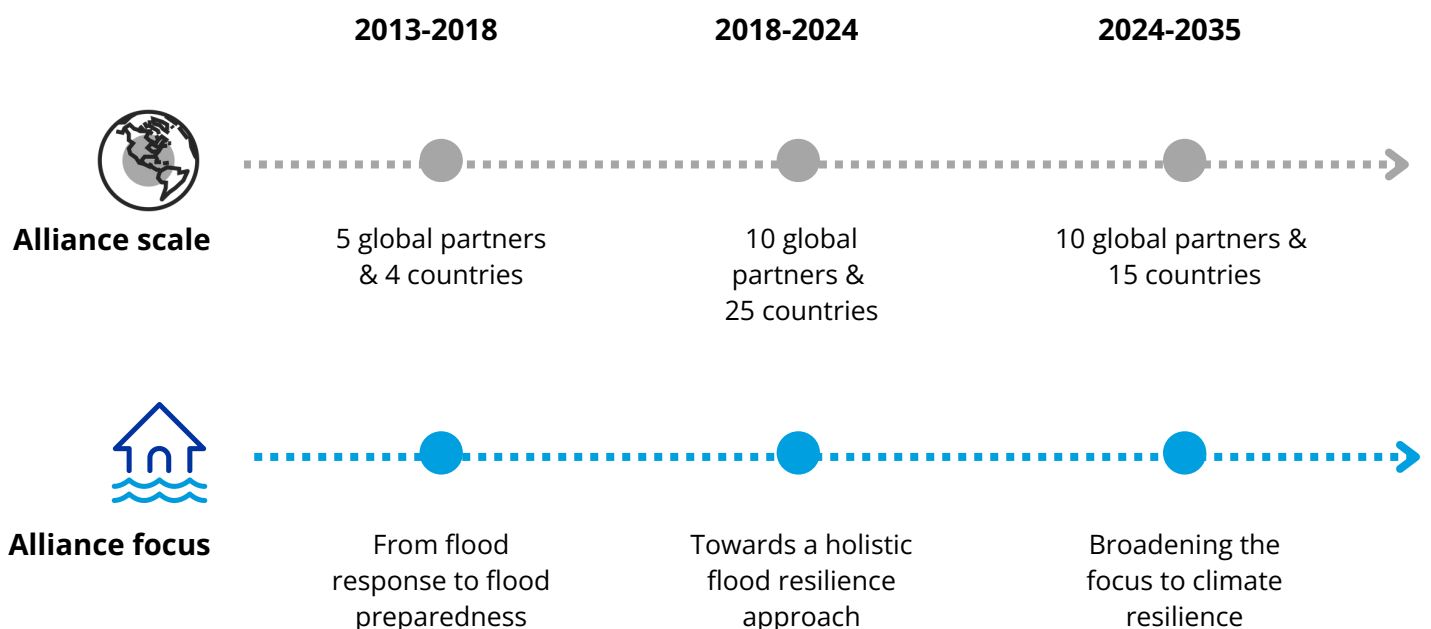
# INSTITUTIONAL CONTEXT

As a founding partner of the Alliance, the **International Federation of Red Cross and Red Crescent Societies** (IFRC) has supported the strategic direction and empowerment of country programs and local communities to take the lead in understanding, preparing for and adapting to flood risks across the regions of Africa, Americas, Asia-Pacific and Europe.

The IFRC is the world's largest humanitarian network that reaches more than 150 million people in 190 countries through the work of over 17 million volunteers. In Nepal, the IFRC supports

the **Nepal Red Cross Society** (NRCS) to advocate for the nationwide scale-up of community resilience-building efforts, particularly through engagement in policy dialogue with national stakeholders and the dissemination of knowledge and tools that promote best practice in community disaster resilience. The NRCS is the largest humanitarian actor in Nepal, with a network of 77 district branches and thousands of volunteers. The Nepal Red Cross is recognised legally as a critical stakeholder in disaster risk management and response, acting as an auxiliary to national and local government.

Figure 3: Evolution of the Alliance and the Flood Resilience Project in Nepal



**IFRC Disaster Law projects in Costa Rica, Honduras, New Zealand and Nepal.**



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# DISASTER LAW APPROACH

Laws, policies, and plans are often the invisible foundation of disaster risk management and having legal gaps in this area can increase vulnerability of communities to disaster. **IFRC Disaster Law** provides support and guidance to National Red Cross and Red Crescent Societies and governments around the world on policy development across many areas of comprehensive disaster risk management, including anticipatory actions, early actions and early warnings, prevention and mitigation, preparedness and response, recovery, international response, protection and inclusion and public health emergencies.

The Nepal Red Cross has worked alongside the Government of Nepal to review and update policies related to disaster risk management at the national level. For example, the Red Cross successfully advocated for and contributed to the review of the Natural Calamity Act and the consequent development and approval of the National Disaster Risk Reduction and Management Act of 2017. As part of the Flood Resilience Alliance, the IFRC and NRCS worked together to **support municipal governments to understand, strengthen and implement disaster risk management law, policy, plans and actions.**

Together with the Ministry of Federal Affairs and General Administration (MoFAGA), the IFRC and NRCS co-chair the **Community-Based Disaster Risk Management (CBDRM) platform**, an inclusive multi stakeholder forum for DRM coordination and policy development. Around thirty-five partners from the humanitarian and

development sectors meet regularly to share experiences on policy-related work as well as community-based interventions. The [CBDRM website](#), available in English and Nepali, hosts a series of tools and reports developed by the partners. This space has been essential to the success of the Flood Resilience Project in co-creating policy guidance and tools and identifying opportunities for replication and scaling up.



*Mr. Kali Prasad Parajuli, Joint Secretary from MoFAGA presented the MDRGA tool in the Biratnagar Metropolitan City.*

# COUNTRY CONTEXT

As part of the Alliance, the IFRC and Nepal Red Cross Society have supported strengthening disaster law that has a direct effect on the resilience of flood-prone communities across the country.

The country receives around 80% of annual precipitation during the monsoon season, between June and September, causing the network of more than 6000 rivers to overflow. Flooding has devastating impacts in Nepal, including significant loss and damages to houses, infrastructure, and livelihoods, particularly crops and livestock. Additionally, there are serious effects on the economy and displacement.

Nepal's federal structure is a relatively new system of government that was officially endorsed in 2015 and came into effect in 2017. This shift from a unitary to a federal system made up of 753 municipalities across seven provinces triggered the development of new legal frameworks and institutional arrangements related to climate and disaster risk management, including the Disaster Risk Reduction and Management (DRRM) Act 2074 (2017), the Local Government Operation Act 2074 (2017), along with the National Policy for Disaster Risk Reduction 2075 (2018) and the Disaster Risk Reduction National Strategic Action Plan 2018-2030. One of the key changes is that municipal governments now have greater responsibility for disaster risk reduction and management.

Figure 4: Provinces where project activities were carried out in selected municipalities



# OUR IMPACT

In the past five years, the project in Nepal has generated significant impact on flood resilience by **scaling up** to advocate for shifting policies and programs at the local, provincial and national level, and **scaling out** to roll out tools and capacity building to more vulnerable communities.

**+140,000 lives improved**

*New policy that has a sustained positive impact on people's lives.*

**+300,000 indirect reach**

*Population that benefit from community interventions, scaling up and influencing initiatives.*



*Resilience actions implemented, ranging from meetings with stakeholders, trainings, workshops, among others.*

*As of August 2024*

## Strengthening local governance

The Municipal Disaster Risk Governance Assessment (MDRGA) tool is a resource developed out of a partnership between IFRC, the Nepal Red Cross Society (NRCS) and the Ministry of Federal Affairs and General Administration (MoFAGA), as well as through codesign and review by the Community-Based Disaster Risk Management (CBDRM) platform partners and other stakeholders.

As the tool has been piloted and rolled out in municipalities across Nepal, a number of significant changes and flow-on effects have been observed that highlight the potential of this resource, including a vital paradigm shift from ex-post to ex-ante whereby municipalities have broadened their understanding of their roles and responsibilities to take action at all stages of the disaster risk management cycle.

The implementation of the MDRGA Tool in Tikapur and Punarbas municipalities in the Sudurpashchim province in 2023, with the support of the Nepal Red Cross and Danish Red Cross, led to a cascade of actions to strengthen disaster risk governance, including assigning a DRR focal person, establishing and operationalizing a disaster management fund through formulating procedures, policies, guidelines and strategies, organizing relevant trainings for key actors and community members, developing plans related to preparedness, response, and risk strategy, and setting up Emergency Operation Centres.

As a result of these actions, municipal representatives noted that the impact of floods in Tikapur in September 2024 was significantly reduced compared to the previous year.

*The tool has shown us where our gaps are, what we've already accomplished, and what still needs to be done ... Before, we thought the municipality's main role was to distribute relief materials, but after implementing the MDRGA tool, we've realized that distributing relief is the last step. Our main responsibility is early action and setting up a warning system.*

Nirmala Chaudhary, DRR Focal Person,  
Tikapur Municipality



Meeting of the Community-based Disaster Risk Management Platform (CBDRM), Nepal Red Cross Society.



# PILLAR 1

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## IMPACT

**The Municipal Disaster Risk Governance Assessment (MDRGA) Tool empowers municipal authorities to review the current status of disaster risk reduction and management governance, identify and take action on needs and priorities.**

Following the shift to a federal governance structure, municipal governments in Nepal now have greater responsibility for disaster risk reduction and management. Providing opportunities and tools for increasing local capacities is key to ensuring municipal authorities can continue to improve DRM governance. The Flood Resilience Project led the development of a **self-assessment tool** to support municipal authorities in understanding their roles and responsibilities related to disaster risk management, as well as to identify resources, strengths, gaps, and priorities.

The **Municipal Disaster Risk Governance Assessment (MDRGA) Tool** draws inspiration from a number of Disaster Law tools, such as the IFRC disaster risk management checklist, developed by the IFRC and is aligned with the Local Government Institutional Capacity Self-Assessment (LISA) tool being rolled out by the Ministry of Federal Affairs and General Administration (MoFAGA).

The MDRGA Tool allows local governments and stakeholders to better understand the need for effective disaster risk governance and to **set a baseline** for existing local DRM governance.

*The Municipal Disaster Risk Governance Assessment Tool is very useful to understand the current resources and need of resources, gaps and challenges in disaster risk reduction/management in the municipality. These indicators [in the tool] will be considered during planning, budgeting, and policymaking.*

Senior Municipal Government Staff  
from Barbardiya Municipality

This self-assessment tool includes sixty-five indicators across six thematic areas:

1. Policy Legal and Regulatory Framework
2. Institution and Organizational Structure
3. Planning, Budgeting and Monitoring
4. Coordination, Partnerships and Collaboration
5. Resources and Capacities
6. Cross-cutting issues

Through the identification of priorities, the MDRGA Tool supports integrating Disaster Risk Reduction (DRR) into local policies, plans and programs and promotes investment in risk-sensitive and DRR-friendly governance. Furthermore, the tool was designed to be **simple, user-friendly and context relevant**.

The MDRGA Tool was **co-created in collaboration with diverse stakeholders** including federal and provincial governments, UN agencies, international and local NGOs including Mercy Corps and Practical Action, to ensure the inclusion of diverse perspectives and to promote broad acceptance and implementation of the methodology.

The first draft of the MDRGA Tool, including a list of over 90 indicators, was complete in 2019 and piloted in 8 municipalities between 2021 and 2022. Despite some delays due to Covid-19, these pilots provided feedback that was then incorporated into the tool. In 2023, the revised MDRGA Tool was implemented in 12 municipalities with the support of Mercy Corps together with Danish Red Cross and Finnish Red Cross (FinnRC) and with Nepal Red Cross Society (NRCS). Again, the tool was updated based on these experiences as well as translated into the Nepali language.

In 2024, the final version of the Municipal Disaster Risk Governance Assessment (MDRGA) Tool was officially endorsed by the Ministry of Federal Affairs and General Administration (MoFAGA) following an extensive process of participatory and technical consultative meetings with the representatives of line agencies and related government Ministries and divisions. Up until the end of August 2024, the Nepal Red Cross Society has implemented the tool in 37 municipalities reaching around 140,000 people and plan to roll out the tool in more municipalities and advocate the rollout of the tool across all 753 local municipalities, with support of key partners including the members of the Community Based Disaster Risk Management (CBDRM) Platform. The implementation of the MDRGA Tool is expected to be a **catalyst for stronger governance at the local level** and to result in improvements of disaster and climate resilience policy and action across the country.

There was an overwhelming positive response from local municipal representatives during the piloting phase and some municipalities where the MDRGA Tool was piloted have started to take actions based on the results of this self-assessment, for example initiating capacity building training to staff and community volunteers and setting up a watershed coordination mechanism between numerous municipalities.

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First Aid drills carried out as part of the district simulation exercise, Nepal Red Cross Society.



## PILLAR 2

IMPACT

Early Warning Systems related to floods and heat waves have been strengthened through national level dialogue and local training and workshops to increase capacities and develop plans.

In 2023, Nepal was selected as a priority country under the global EW4ALL initiative, which aims to ensure universal coverage of early warning systems by 2027. The IFRC is the lead for Pillar 4 activities related to preparedness to respond. The Flood Resilience Project contributed to this global initiative in two main ways; firstly, by supporting **policy dialogue**, with a focus on highlighting local action and community voices, and secondly by



carrying out **activities to strengthen early warning systems** in targeted at-risk locations.

Two key meetings and workshops were held in 2023 to bring actors together to review the current state of early warning systems in Nepal and to assess the progress in implementing the four pillars of the EW4ALL initiative.

Firstly, a **joint consultative meeting** was held with IFRC, Nepal Red Cross Society, Partner National Societies such as the American Red Cross, British Red Cross, Canadian Red Cross, Danish Red Cross, Finnish Red Cross, Japanese Red Cross and Swiss Red Cross, and high-level government officials representing the National Disaster Risk Reduction and Management Authority (NDRRMA), Ministry of Home Affairs (MoHA),

Ministry of Federal Affairs and General Administration (MoFAGA), Ministry of Health and Population (MoHP), Ministry of Education, Science and Technology (MoEST), Ministry of Agriculture and Livestock Development (MoALD), National Planning Commission (NPC), Department of Hydrology and Meteorology (DHM), and Armed Police Force (APF). As well as presenting the Red Cross contributions to the priorities of the government's Disaster Risk Reduction National Strategic Plan of Action, this meeting identified further joint actions and areas of cooperation.

A **National Consultative Workshop on EW4All** was convened by the National Disaster Risk Reduction and Management Authority (NDRRMA) and cohosted by IFRC, the United Nations Office For Disaster Risk Reduction (UNDRR), World Meteorological Organization (WMO) and International Telecommunication Union (ITU). Altogether 165 participants, representing government authorities, UN agencies, Nepal Red Cross, IFRC, donor agencies, international and national non-government organizations (INGOs), academic and research institutions, and the private sector gathered together to discuss policy affairs, scalable solutions, fundings opportunities and challenges. The Red Cross highlighted community perspectives to ensure that local voices and interests are taken into account in the national roadmap.

The Nepal Red Cross carried out EWS strengthening work at the local level in 8 municipalities located in Lohandra Basin and Biratnagar Metropolitan city with the support of the Finnish Red Cross. An assessment of the existing EWS was carried out including focus group discussions and key informant interviews. Stakeholder consultation meetings brought

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together the Mayor, Executive Administrative officer and DRR focal points from the targeted municipalities, representatives from district police office, army office, ministry of Internal and Law, Department of Hydrology and Meteorology, district chapter and subchapter of NRCS, and partner organizations to identify potential activities for collaboration.

One of the gaps identified was in the lack of planning for heat waves. As a result, a one-day workshop was implemented in collaboration with the Climate Centre and the Biratnagar Metropolitan City to develop a Heat Wave Action Plan. Attendees were very much aware and concerned of and worried about the rising temperatures in their region, emphasizing the urgent necessity of the plan.

Other key priorities included **increasing knowledge and capacities related to Early Warning Systems and emergency response.**

Consequently, two EWS trainings were conducted with Ward Disaster Management Committee (WDMC) members, teachers, NRCS volunteers, and security forces, covering the history of EWS, communication and knowledge, response and preparedness, and forecast based action. Five First Aid trainings were conducted with the participation of representatives and staff from the municipalities, teachers, students, women's health workers, and community leaders, to enhance the skills of key community actors in coping with and preparing for potential accidents and disasters. Additionally, a First Aid Trainer Update Workshop was conducted with the participation of trainers from the Morang and Sunsari districts.

# INSTITUTIONAL LEARNING

As part of the Flood Resilience Alliance, the IFRC and Nepal Red Cross have captured a number of lessons learned from challenges and successes that are key to promoting institutional learning.

As existing IFRC Disaster Law tools were adapted to form the basis of the Municipal Disaster Risk Governance Assessment (MDRGA) Tool, it became clear that it would be necessary to **strike a balance between extensive indicators and an accessible process** that municipalities would be capable of undertaking. The piloting of the tool helped to discover which indicators were the most useful. While this testing of the tool was necessary to learn and improve the tool itself, this also represented a challenge for the project as the piloting phase coincided with the **Covid-19 pandemic** which reduced the

options for direct engagement with communities and local travel. Lengthy lockdowns significantly hampered the travel and logistics required to carry out these pilots. While some pilots were implemented virtually, this context led to delays in the project timeline.

The project had a very specific focus on developing an assessment tool to support municipalities to understand their new disaster risk reduction and management responsibilities. While this focused approach allowed the resources to be concentrated on a **single, significant output**, it also became challenging when obstacles related to the review and endorsement of the MDRGA tool emerged.

Governmental endorsement of the MDRGA tool was prioritised as to ensure the tool would be supported by key actors, that scaling up across municipalities would be backed and to promote the sustainability and continued use of the tool into the future. In 2024, the MDRGA tool was officially endorsed, however the **review and approval process** took more than 2 years, and a few different obstacles were faced in this process. Firstly, there was a **large number of federal departments and units** who provided input given the assessment tool covers a range of areas. This required constant communication and monitoring. Secondly, **regular turnover of senior government officials** meant that progress that had been made was reversed and new relationships had to be developed. Thirdly, **general elections** and the Covid-19 shifted the focus of many ministries and reduced the capacity of officials to support the review process.

*Boat rescue drill as part of district simulation exercise.  
Nepal Red Cross Society*



It is important to consider that **approval processes can be complex and slow**, and different challenges may be faced at different times. To deal with this uncertainty, it is necessary to constantly develop and nurture relationships, identify key entry points where there is an opportunity to expedite the endorsement, communicate the value of the tool and to dedicate resources to managing the review process. Despite these challenges, collaboration among various stakeholders and public authorities regarding the standard tools signifies our exemplary role. Further, the findings from the implementation of the tool will help the National Society position itself and identify gaps where we can play a vital role in collaborating with local governments.

Alongside this strategy, the project continued to manage risk and to monitor the impacts to the project budget and schedule. Given the delays and uncertainty surrounding the endorsement of the MDRGA tool and the viability of the planned rollout activities that were dependent on the endorsement, in late 2023 the project developed a new line of work to build community resilience in other ways while the review process continued. Project resources were redirected to work related to the Early Warning For All (EW4All) Initiative that also met the broader objectives of strengthening community resilience. This project shift was discussed with government stakeholders to ensure full understanding and support.

*Debrief meeting with key stakeholders following the district simulation exercise, August 2024. Nepal Red Cross Society*



# RECOMMENDATIONS

The successful development of the Flood Resilience Project in Nepal over the last 5 years has marked a pivotal improvement in disaster risk governance. However, as climate risks continue to grow it is important that our approaches remain dynamic and innovative; leveraging the lessons learned from previous experiences.



Work with others and develop alternative strategies for community engagement.



Co-build tools and resources with partners to increase a sense of ownership and to promote a pathway for wide replication.



Adapt materials and methodologies for virtual or long-distance training where direct community engagement is not possible.



Carefully plan for processes that depend on engagement with key stakeholders.



Continuously develop and nurture relationships with key stakeholders.



Identify the best entry points in terms of key actors and timing to facilitate engagement with stakeholders.



Communicate the value of the tool and co-benefits for existing objectives with key stakeholders.



Schedule additional time for engagement with stakeholders, especially where reviews or endorsement require input from multiple parties.



Establish a risk management strategy and monitor risk regularly.



In the face of unexpected changes, develop alternative strategies for achieving project objectives.



Identify potential risks that may impede project progress and monitor regularly.



Set thresholds for acceptable risk and activate programming changes once thresholds are surpassed.



Disseminate tools among different stakeholders at the local level.



To support the uptake of the tool, integrate into ongoing initiatives led by diverse partners at the local level, i.e. programs or projects working with local authorities on Disaster Risk Management or Early Warning Systems.

# APPENDIX 1

## KEY RESOURCES



Review the following key resources to learn more about the experiences and lessons learned from the Nepal Red Cross Society and IFRC efforts as part of the Zurich Flood Resilience Program in Nepal.

### About the Flood Resilience Program

- Country Briefing Nepal ([English](#))
- Impact Brief: Empowering Local Communities for enhanced disaster risk governance in Nepal
- Community Based Disaster Risk Management Platform ([website](#)).

### Pillar of Change 1: *The Municipal Disaster Risk Governance Assessment (MDRGA) Tool empowers municipal authorities to review the current status of disaster risk reduction and management governance, identify and take action on needs and priorities.*

- Infographic: Municipal Disaster Risk Governance Assessment (MDRGA) Tool
- Case study 2024: A catalyst for strengthening local risk governance: Impacts of the Municipal Disaster Risk Governance Assessment (MDRGA Tool) in Nepal.
- Case study 2021: Strengthening Local Risk Governance in Nepal ([English](#)).
- Blog: Nepal's Municipal Disaster Risk Governance Assessment Tool: a case study on strengthening disaster risk management ([English](#)).
- Blog: Bringing disaster risk management to the people of Nepal ([English](#)).

### Pillar of change 2: *Early Warning Systems related to floods and heat waves have been strengthened through national level dialogue and local training and workshops to increase capacities and develop plans.*

- Article: Nepal holds national consultation – Early Warnings for All and WITH All ([English](#)).
- Press release: IFRC and UN scale up Early Warnings for All into action on the ground ([English](#)).



