

**FINDING SHARING ON RESEARCH
SCOPING STUDY ON
ANTICIPATORY ACTIONS IN
NEPAL**

21st November 2023

Hotel Himalaya, Lalitpur



RESEARCH BACKGROUND

- Anticipatory Action is gaining attention in Nepal, with various development partners implementing it in disaster management.
- OXFAM, a long-time partner in disaster management, is interested to work on Anticipatory Action in Nepal.
- OXFAM conducted a Scoping Study on Anticipatory Actions in Nepal in 2023 for comprehensive understanding of anticipatory action

RESEARCH STUDY OBJECTIVE

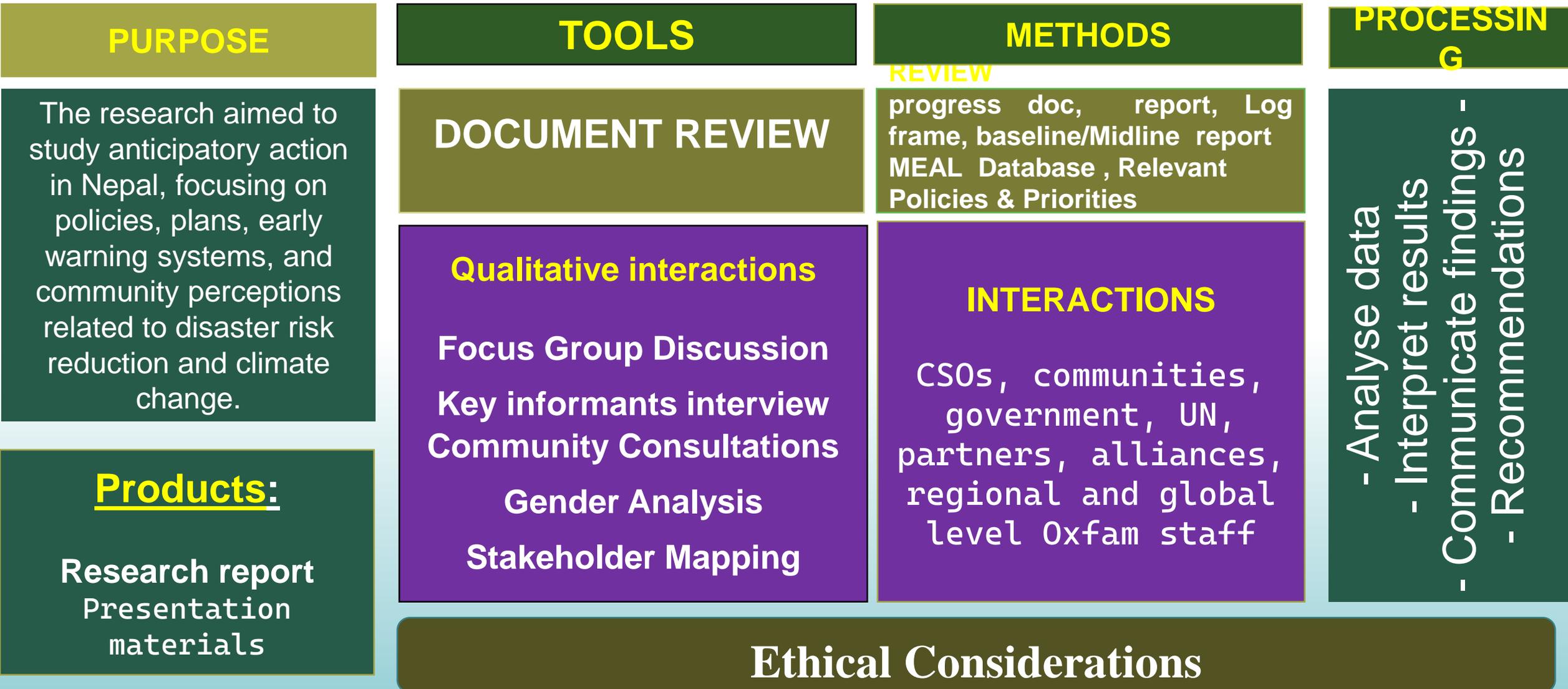
- To conduct scoping study of anticipatory action in Nepal including key policies and plans on DRR/CC supporting AA, early warning structure/communication mechanism.
- To map existing literature and governance structures along with community perception on anticipatory action.

RESEARCH STUDY AREA

Geographical Coverage: four municipalities of 2 districts: Dadeldhura: (*Parshuram Municipality*) and Kanchanpur (*Dodhara Chandani, Beldandi & Bhimdutta Municipalities*).



THE RESEARCH STUDY METHODOLOGY



THE RESEARCH STUDY: FINDINGS

Federal Policies related to Anticipatory action in Nepal.

National Policy for DRR, 2018

- Forecast-based preparedness involves leveraging advanced technologies and monitoring systems to anticipate disasters (point 7.9). By analyzing data on natural hazards like floods, landslides, droughts, and others, the system can issue early warnings (Provision 7.42).
- This information allows authorities and communities to take timely and targeted actions, such as evacuation plans, resource mobilization, and the implementation of specific measures to mitigate the impact of the impending disaster.
- The policy likely emphasizes the need for flexible and adaptable response plans including formulation and execution of Forecast-Based Preparedness and Response Plans.
- These plans are designed based on forecasts provided by the early warning system, ensuring that response strategies can dynamically adjust to changing scenarios.
- This swiftness in planning allows for more effective allocation of resources, better coordination among stakeholders, and a more proactive approach to disaster management.

THE RESEARCH STUDY: FINDINGS

National DRR strategic action plan, 2018-2030

The National DRR Strategic Plan aims to boost resilience against natural disasters by improving preparedness, response, and integrating risk reduction strategies into national policies.

- An integral aspect of **guiding principle 6 (pg.37)** is captured in **Indicator 6**, which calls for a substantial enhancement in both availability and accessibility to early warning systems that cater to multiple hazards.
- The plan measures the success of this indicator in three ways:
- **First**, by monitoring the proportion of the country's area that has established multi-hazard monitoring and early warning system (6.1);
- **Secondly**, by gauging the fraction of the population, especially in disaster-affected regions, who receive early warnings through either local or national information systems (6.2); and
- **Thirdly**, by determining the percentage of local administrative divisions in high-risk zones that have devised and implemented forecast-based preparedness plans (6.3) (Page 37).

THE RESEARCH STUDY: FINDINGS

- **National DRR strategic action plan, 2018-2030 Contd...**
- **Priority Area 3**, fostering a holistic approach towards risk-informed investments in disaster risk reduction, catering to private and public sectors (Page 122). Using this approach, UN agencies and INGOs, **leverage Forecast-based financing as a modality.**
- These agencies are **practicing cash-based anticipatory actions across various local governments and complementing this, under the priority actions in areas C (6.3)** that aim at boosting private investment for disaster risk reduction.
- These include Forecast-Based Financing, micro insurance modalities, including reinsurance.

Strategic Activity	Expected Outcome	Time Frame	Responsible Agency	Supporting Agency
Develop and promote alternative and Innovative Financial Instruments, for example, Forecast Based Financing, micro investment, micro credit, insurance, reinsurance etc. for disaster Risk reduction	Humanitarian fund will be mobilized based on the scientific data. In addition, involvement of the private sector in disaster Risk reduction will be increased	Medium Term	Ministry of Finance of the Government of Nepal, Nepal Rastra Bank, Insurance Board, Rastriya Beema Sansthan, Private Sector	Concerned Ministries of the Government of Nepal, Province and Local Governments

THE RESEARCH STUDY: FINDINGS

- Many development partners have identified this strategy as a key entry point to drive forward Anticipatory action initiatives.
- The plan emphasizes the importance adapting both the NDRF and the DPRP, focussing on forecast-based emergency preparedness and response mechanisms. (Page 133)

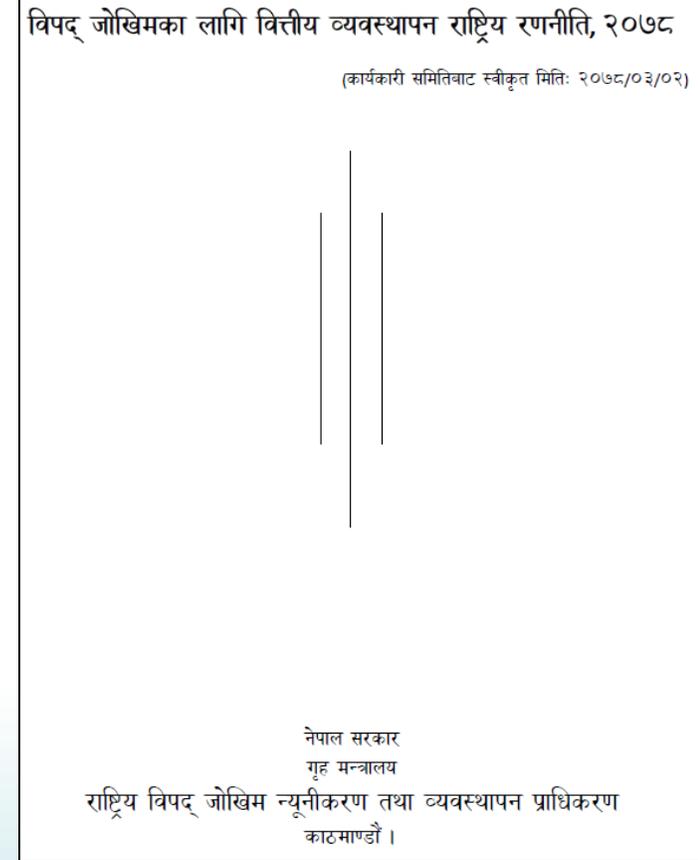
Update National Disaster Response Framework and District Disaster Preparedness and Response Plan for forecast based emergency preparedness and response	Standard operating procedures will be updated for Forecast based Emergency Preparedness and Response	Short Term	Ministry of Home Affairs of the Government of Nepal, Department of Hydrology and Meteorology	Concerned Ministries of the Government of Nepal, Province and the Local Governments
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S.N.	Indicator	Baseline (average till 2015)	Short Term (by 2020)	Medium Term (by 2025)	Long Term (by 2030)
6. Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments					
6.1	Percentage of the area that has established multi-hazards monitoring and early warning system in proportion to the total area of the country		50	70	100
6.2	Percentage of population receiving early warning via local or national information system in proportion to the population of disaster affected area	20	50	80	100
6.3	Percentage of local levels in disaster risk prone areas having forecast based preparedness plan		100	100	100

THE RESEARCH STUDY: FINDINGS

National Disaster Risk Financing Strategy, 2020

- NDRFS aims to create a Disaster Resilient Nepal by minimizing annual disaster losses and utilizing risk transfer instruments for effective financing in disaster risk reduction and management.
- Establish pre-arranged financial mechanisms during disasters while **fostering financial risk** sharing among stakeholders, resulting in reduced financial, physical, social, and human losses from disasters.



८.१२ भुकम्प, बाढी तथा महामारी जस्ता ठूला विपद्बाट प्रभावितहरूको खोज, उद्धार, राहत, पुनःप्राप्ति, पुनःस्थापना, पुनःनिर्माण र पुनर्लाभ का लागि जोखिम हस्तान्तरण पद्धतिको विकास र विपद्को सामना गर्न आवश्यक पूर्वव्यवस्थित वित्तीय संयन्त्रहरू (Pre-arranged Financing Mechanisms) जस्तै संचित कोष (प्रधानमन्त्री दैवी प्रकोप उद्धार कोष, केन्द्रिय विपद् व्यवस्थापन कोष, प्रदेश विपद् व्यवस्थापन कोष, जिल्ला विपद् व्यवस्थापन कोष र स्थानीय विपद् व्यवस्थापन कोष), Catastrophe Bond, आकस्मिक ऋण (Contingent Credit), Insurance Linked Securities, बीमा जस्ता संयन्त्रहरूको स्थापना र परिचालन गर्ने अभ्यास गराइनेछ साथै निजी क्षेत्र र अन्तराष्ट्रिय निकायको संलग्नतामा Catastrophe Bond जारी गर्ने व्यवस्था गरिनेछ ।

THE RESEARCH STUDY: FINDINGS

- Enhance **Hazard Monitoring and Disaster Early Warning Information Systems**, emphasizing the enactment of essential laws and guidelines.
- Proactive financial preparedness by integrating reliable **Early Warning Information into pre-financing mechanisms**.
- Integrate **weather-based forecasting into agricultural insurance** and expand community access to index-based insurance services.

World Bank and Nepal Partner to Strengthen Climate and Disaster Risk Response

KATHMANDU, March 30, 2020 – The Ministry of Finance signed a \$50 million (NPR 6 billion) financing agreement with the World Bank on March 27 for a contingent financing that can be availed in the case of a natural disaster or health emergency in the country. This operation aims to enhance the government capacity to manage the risk of climate change and natural disasters including disease outbreaks.

The agreement on the Development Policy Financing with a Catastrophe Deferred Drawdown Option (Cat DDO) was signed by Mr. Sishir Kumar Dhungana, Secretary, Ministry of Finance and Mr. Faris H. Hadad-Zervos, World Bank Country Manager for Nepal.

THE RESEARCH STUDY: FINDINGS

Draft Shock Responsive Social Protection (Operation & Management) Guideline- NDRRMA

- NDRRMA has drafted *Shock Responsive Social Protection (Operation and Management) Guidelines in 2021*.
- **Proactive distribution of monetary support and tangible resources** to economically needy people and disaster-prone groups, informed by risk anticipation through early warning system
- The primary aim is to alleviate the impact of natural disasters for **upfront risk mitigation endeavors**.
- The guideline emphasizes **predictive monetary support**, including measures such as acquiring or securely stockpiling essentials and considering farmers' agricultural practices and products.
- Such cash provisions are to be dispersed no later than **ten days before the forecasted event**.

THE RESEARCH STUDY: FINDINGS

Provincial policies.

- Several Provincial Governments have recognized the critical importance of **EWS and forecast-based assistance**, embedding these elements into their policies and strategic roadmaps.
- Karnali province has plan to strengthen its disaster preparedness and risk reduction capacities such that, by 2030, they aim for 100% coverage of their territory with a **multi-hazard monitoring and early warning system**, compared to 20% in 2022.
- The Karnali Provincial Government aspires the entire population (100%) in disaster-affected zones to receive **early warnings**, up from 20% in 2022.
- The province also aims to have a **forecast-based preparedness plan by 2025** for all local levels in disaster-prone areas.



आन्तरिक मामिला तथा कानून मन्त्रालय

क्र.सं.	सूचक	आधार रेखा २०२२ को औसत	अल्पकालीन लक्ष्य २०२३ सम्म	मध्यकालीन लक्ष्य २०२५ सम्म	दीर्घकालीन लक्ष्य २०३० सम्म
५	स्थानीय तहहरूमा विपद् जोखिम रणनीति र कार्ययोजना तयार गर्ने				
५.१	विपद् जोखिम न्यूनीकरण रणनीति तथा कार्ययोजना तयार गर्ने स्थानीय तहहरूको प्रतिशत		१००		
५.२	विपद् जोखिम पूर्वतयारी तथा प्रतिकार्य कार्ययोजना तयार गर्ने स्थानीय तहहरूको प्रतिशत		१००		
५.३	पुनर्निर्माण, पुनर्स्थापना तथा पुनर्निर्माणका लागि अझ राम्रो र बलियो निर्माणको सिद्धान्तका आधारमा श्रोतहरू व्यवस्थापन र कार्यान्वयन गर्ने निकायहरूको प्रतिशत		२०	५०	१००
६	बहु-प्रकोप पूर्वसूचना प्रणाली र विपद् जोखिम सूचना तथा आँकलनको व्यवस्थापन र उपलब्धतामा उल्लेख्य वृद्धि गर्ने				
६.१	कुल क्षेत्रफलको अनुपातमा बहु-प्रकोप अनुगमन तथा पूर्वसूचना प्रणाली स्थापना र सञ्चालन भएको क्षेत्रफलको प्रतिशत		२०	५०	१००
६.२	विपद् प्रभावित क्षेत्रको अनुपातमा सूचना प्रणाली मार्फत पूर्व सूचना प्राप्त गर्ने जनसङ्ख्याको प्रतिशत		२०	५०	१००
६.३	पूर्वानुमानमा आधारित पूर्वतयारी कार्यविधि तयार भएका स्थानीय तहहरूको प्रतिशत		५०	१००	
६.४	स्थानीय स्तरमा उपयोगी विपद् जोखिम सम्बन्धी सूचना एवम् जानकारी समुदायलाई उपलब्ध गराउन सक्ने स्थानीय तहहरूको प्रतिशत		२०	५०	१००
६.५	पूर्व सूचना प्राप्त भएपछि विपद् प्रभावित क्षेत्रबाट सुरक्षित स्थानमा सारिएका जनसङ्ख्याको प्रतिशत		३०	६०	१००

विपद् जोखिम न्यूनीकरण प्रादेशिक नीति तथा रणनीतिक कार्ययोजना

२०२२ - २०३०



कर्णाली प्रदेश सरकार
आन्तरिक मामिला तथा कानून मन्त्रालय

वीरेन्द्रनगर, सुर्खेत

२०७९

THE RESEARCH STUDY: FINDINGS

Local level policies, plans and efforts.

- Some Local Governments have implemented **cash and voucher assistance anticipatory activities** in support of various development partners' responses.
- With the collaborative efforts of development partners, Local Governments have been equipped to incorporate Anticipatory Action principles, actions, and triggering mechanisms into their DPRP and forecast-based action initiatives. Additionally, several municipalities have formally endorsed the **Anticipatory Cash Guidelines**.
- Dodhara Chandani Municipality, which, with the support of Oxfam and DCA, has pioneered the development of **forecast-based preparedness procedures with specific lead times**.
- Municipalities such as Dodhara Chandani, Bhajani, Beldandi, Bhimdatta and others have formulated **cash distribution procedures embedding anticipatory measures**. Meanwhile, DDMC in Dang, alongside Rajpur, Gadhawa, and Babai RMs, in collaboration with NRCS, have introduced their **disaster risk management strategies which encompass monsoon preparedness, response plans, and flood contingency plans, with Anticipatory Action component in the core**.



THE RESEARCH STUDY: FINDINGS

- Wildlife Conservation Nepal, in coordination with Birendranagar Municipality has initiated “**Karnali Climate Action Education Program**” (KCAEP) for Karnali Province, assisting in the development of its local curriculum for all the schools of the Birendranagar Municipality, under Green School Program.
- With the support of Save the Children, Narainapur Rural Municipality and Rapti Sonari Rural Municipality have developed **protocols to address the effects of cold waves**. The development of the protocol involves risk analysis based on long risk timeline, assessments of potential impacts on different demographic groups, and a thorough examination of triggers.

दोधारा चौदनी नगरपालिकाको नगद सहायता सञ्चालन कार्यविधि २०७८

दोधारा चौदनी नगरपालिका
नगर कार्यपालिकाको कार्यालय
कन्चनपुर
सुदूरपश्चिम प्रदेश, नेपाल



तयार गर्ने:

नगर कार्यपालिकाको कार्यालय
दोधारा चौदनी, कन्चनपुर

दोधारा चौदनी नगरपालिकाको नगद सहायता सञ्चालन कार्यविधि २०७८



COLD WAVE

EARLY ACTION PROTOCOL
2022

Narainapur Rural Municipality
Raptisonari Rural Municipality

THE RESEARCH STUDY: FINDINGS

Legal & Policy gap in cash assistance and anticipatory action in Nepal

- The inclusion of provisions of forecast-based preparedness plans within Nepal's DRR National Strategic Plan of Action and National DRR Policy reflects a forward-thinking and proactive approach to disaster management.
- However, the situation in Nepal regarding the execution of anticipatory action and the distribution of cash assistance, both post-disaster and in anticipation of disasters by non-governmental agencies, is characterized by several policy and legal gaps. ***The NDRRMA's Monsoon Preparedness and Response Plan, 2023, permits only UN agencies to provide cash assistance based on forecasts, creating uncertainty about the participation of INGOs in such initiatives. These issues and gaps create significant challenges and uncertainties in implementing these initiatives.***
- **Government mechanism for cash distribution**

The Federal Government has established its **own mechanism for cash distribution as part of post-disaster relief efforts** (for example, Disaster Victim Rescue and Relief Related Standard, 2019), channelling these funds through entities such as DDMC or LDMC. This distribution is exclusively managed by **the Federal Government based on the standard, preventing other non-government agencies from directly distributing cash**. Non-government agencies are limited to providing in-kind support through a one-door system.

२. मनुसुन पूर्वानुमानमा आधारित जोखिम न्यूनीकरणका लागि पूर्व प्रतिकार्य (Forecast based anticipatory

७८

राष्ट्रिय विपद् जोखिम न्यूनीकरण तथा व्यवस्थापन प्राधिकरण



मनुसुन पूर्वतयारी तथा प्रतिकार्य राष्ट्रिय कार्ययोजना - २०८०

early action):

- मनुसुनजन्य विपद्बाट हुन सक्ने जोखिम न्यूनीकरणको लक्ष्य राख्दै पहिले नै सम्भावित बाढीबाट हुन सक्ने ठूलो परिमाणको मानवीय तथा भौतिक क्षति रोक्न वा कम गर्न नेपालमा पूर्वानुमानमा आधारित पूर्व प्रतिकार्य (anticipatory action) लाई निरन्तरता दिने योजना रहेको छ । यस अन्तर्गत विभिन्न UN agencies ले Department of Hydrology and Meteorology तथा अन्य regional forecasting agencies ले उपलब्ध गराउने Early warning and rainfall forecasting information को आधारमा बाढी पूर्वानुमानको pre-defined threshold and trigger system बमोजिम तत्काल गुजाराको लागि बहुउद्देशीय नगद सहायता प्रदान गर्नेछन् । हरेक हप्ता नेपाल कृषि अनुसन्धान परिषद्, राष्ट्रिय कृषि

THE RESEARCH STUDY: FINDINGS

- **Lack of Cash Distribution Guidelines**

To bridge the existing gap in cash distribution for the humanitarian agencies, MoHA and MoFAGA formed the Inter-ministry Task Team in 2020 to introduce *cash distribution guidelines*. However, It has been consuming a hefty amount of time for finalization. This delay has led to confusion among development partners regarding cash distribution.

- **Engagement of Development Partners in Anticipatory Action**

The Ministry of Home Affairs has been expressing reservations about anticipatory action and cash distribution initiatives. Contrarily, other governmental agencies are attempting to create a favourable environment for such anticipatory actions. For instance, MoFAGA is working on introducing a '*Cash Distribution Guideline*', while NDRRMA is developing guideline for Shock Responsive Social Protection (SRSP). NDRRMA interprets that anticipatory action is a vital component of SRSP.

THE RESEARCH STUDY: FINDINGS

Development Support Mobilization Challenge

Point 17 of the '*Province and Local Level Development Support Mobilization Standard, 2019*' outlines the process for the Province and Local Government to mobilize support received from national and international non-governmental organizations.

Varying Approaches to Local Government:

Some LG allow non-government entities to provide cash and vouchers, while others mandate contributions to the DRM Fund or support through one one-door system. This diversity in policy has led to **inconsistent relief distribution**, causing confusion among community beneficiaries.

Government's role

- The federal government policy neither explicitly permits nor prohibits distributing cash. Local Governments can distribute cash if they can manage possible conflict caused by such distribution.
- This situation is compounded by the fact that government-owned documents like the NDRRMA's Monsoon Preparedness and Response Plan, 2023 mention pre-disaster cash distribution in anticipation of early warning/weather forecasts. This plan only allows UN agencies to provide cash assistance based on forecasts. ***This raises questions about whether other organizations, including INGOs, are allowed to participate in such initiatives.***

THE RESEARCH STUDY: FINDINGS

Government's position:

- Due to the absence of guiding documents authorizing such actions, the MoHA wants development partners to focus on in-kind support rather than cash support, especially pre-disaster distributions based on early warning forecasts.
- While NDRRMA is keen on developing a policy on SRSP and anticipatory action, the DRRM Act 2017 states that the DRRM Executive Committee is responsible for approving related policies. Dozens of committee-approved policy decisions remain unimplemented due to a bureaucratic cycle where Ministries seek Ministerial Cabinet approval, but the cabinet deflects responsibility back to the Executive Committee, causing policy initiatives to stall.
- They argue that if relief is provided in anticipation of a disaster, and the disaster affects those without assistance while sparing those with assistance, it could spark conflict. Such disputes might escalate, potentially requiring federal intervention and force to maintain order.

These policy and legal gaps underscore the challenges and limitations in Nepal's disaster response and risk reduction efforts, hindering the execution of Anticipatory Action and the distribution of cash assistance by non-governmental agencies, both in the aftermath of disasters and in anticipation of them.

THE RESEARCH STUDY: FINDINGS

Stakeholder Mapping on Anticipatory Action

Government Stakeholders:

- **Federal Level:**

MoHA and NDRRMA are key players, overseeing disaster management, policy formulation, and federal to local coordination.

- **Provincial and Local Engagement:**

Provincial and local agencies like Ministry of Internal Affairs and Law and DDMC play crucial roles in disaster management, risk mitigation, and coordination at regional and local levels.

- **Municipal and Local Disaster Management Committees:**

These entities drive local disaster management policies, implement initiatives, and support social protection efforts. Several municipalities have initiated anticipatory action procedures, underscoring their pivotal role in successful AA implementation across Nepal.

THE RESEARCH STUDY: FINDINGS

Development Partners:

- **UNICEF's Multi-Hazard Approach:** Prioritizing multi-hazard early warning systems and cash transfers, particularly child grants, to bolster preparedness.
- **Start Fund Nepal's Local NGO Partnerships:** Collaborating with local NGOs to fortify their capacity for swift responses to emerging crises, supported by FCDO.
- **EU's ECHO Commitment:** Strengthening partnerships with local agencies, focusing on landslide-prone areas, and aligning with forecast-based actions to enhance disaster preparedness.
- **WFP's Food Security Focus:** Implementing anticipatory cash assistance and bolstering food security measures under a strategic plan centered on early warning systems.

THE RESEARCH STUDY: FINDINGS

- **Danish Church Aid's Initiatives:** Piloting anticipatory humanitarian action, fostering climate-resilient communities through flood modeling, and shock-responsive social protection, especially among local governments and ministries.
- **Save the Children's Cold Wave Protocol:** Utilizing the Cold Wave Early Action Protocol to safeguard vulnerable communities as part of their anticipatory action strategy.
- **Nepal Cash Coordination Group (CCG):** Formed post-2015 earthquake, spearheading Cash and Voucher Assistance interventions, emphasizing collaboration and standardization.
- **NRCS's Humanitarian Service:** Leading community resilience efforts, cash interventions, and forecast-based actions, with a pivotal role in anticipatory action supported by the global Red Cross movement and an auxiliary relationship with the government.

FINDINGS

Anticipatory Action timeline in Nepal :

TIMELINE Anticipatory Action (AA) in Nepal

UNICEF & NEPAL GOVERNMENT COLLABORATION

- UNICEF & Nepal Government uses Social Security Allowance system for Cash Transfer to earthquake relief.
- Benefited 334,000 people initially, expanded to include 350,000 children.

2015

ANTICIPATORY ACTION FOR FLOODS

- WFP, Nepal Red Cross, Danish Red Cross, and Practical Action developed AA for floods.

2016

FORECAST-BASED ACTION FOR FLOODS

- Nepal Red Cross pilots forecast-based action for floods with Danish Red Cross and Climate Centre support.

2018

INTEGRATION OF FORECAST ACTION AND SOCIAL PROTECTION

- NRCS/DRC/HI-ECHO project merged forecast action and social protection in Provinces 5 and Sudur Paschim.
- PIN-ECHO-Pratibaddha: Phase II focused on early action in landslide areas.

2020

STRENGTHENING AA INITIATIVES

- START FUND oversee projects including CARE Nepal, Mercy Corps, ActionAid, and others.
- UN organizations led by the Resident Coordinator enhanced emergency response with a two-step trigger.
- Save the Children developed Cold Wave Early Action Protocol.
- Mercy Corps introduced M-RED program for disaster risk reduction.
- First National Dialogue organized on AA

2022

EXPANSION AND CONSOLIDATION

- START FUND initiated AA projects in Bardia and Sindhupalchok, including 7 other anticipatory alert projects.
- NRCS-ECHO's STRONG project promoted AA and community involvement.
- DCA tested anticipatory humanitarian actions for floods.
- NRCS initiated ENCORE project in Gadhawa and Babai.
- NRCS's STRONG Project addressed the impacts of rivers on communities.
- UNFPA, UNICEF, UN Women, WHO, and WFP collaborated on a CERF project
- 2nd National Dialogue organized on AA
- Nepal hosted 7th Asia-Pacific Dialogue Platform on AA

2023

THE RESEARCH STUDY: FINDINGS

Indigenous knowledge and practice on EWS:

- Nature's signs to predict the weather- ***appearance and movement of clouds often hint at upcoming rain or storms- circle around the moon at night, it's usually a sign that rain will soon fall- Some unique cloud patterns in the evening could also suggest that a storm might be brewing- when many birds singing in harmony, rain is probably on its way- if birds are spotted flying lower than usual, it might indicate an approaching storm.*** Community consultations revealed the existing knowledge.
- Role of Katuwal and Chiraki in informing the community about impending disaster, hence holds a pivotal roles.
- Need for a comprehensive study on the existing indigenous EWS in Nepal by merging indigenous foresight with modern forecasting methodologies, can forge a comprehensive strategy to preempt and mitigate potential threats, ensuring a safer coexistence with nature.



THE RESEARCH STUDY: FINDINGS

Science and Technology in EWS:

- However, these numbers fell to an average of 41 from 2020 to 2022, marking a substantial decline of 42%. This reduction can be attributed to effective EWS, coupled with community awareness programs and strategic infrastructural developments.
- In contrast, landslide-related deaths have seen an alarming increase. Annual average deaths rose from 111 (2015-2019) to 193 (2020-2022) - a 74% jump. This sharp surge underscores the lack of an adequate landslide EWS. This demonstrates that a robust EWS can drastically decrease fatalities and property damage.
- It is important to prioritize the establishment of a comprehensive EWS that covers the broad spectrum of natural hazards the nation faces. High end technology like satellite imagery, river modelling, ground sensors, and AI-based predictive modelling etc.



THE RESEARCH STUDY: FINDINGS

"We believe in modern Early Warning Systems (EWS) and acted accordingly based on the information disseminated by such technology. However, on numerous occasions, we have received messages indicating that the water level has crossed the danger threshold, causing people to initiate evacuations yet the community does not observe an actual flood. After experiencing this multiple times, there is hesitancy within the community to respond promptly upon receiving an alert. Instead, we often go to the river to check if the water level has risen as indicated in the alert message. These situations have left the community in a state of confusion, unsure whether to evacuate immediately or wait until we physically witness the rising water levels before delivering evacuation messages."

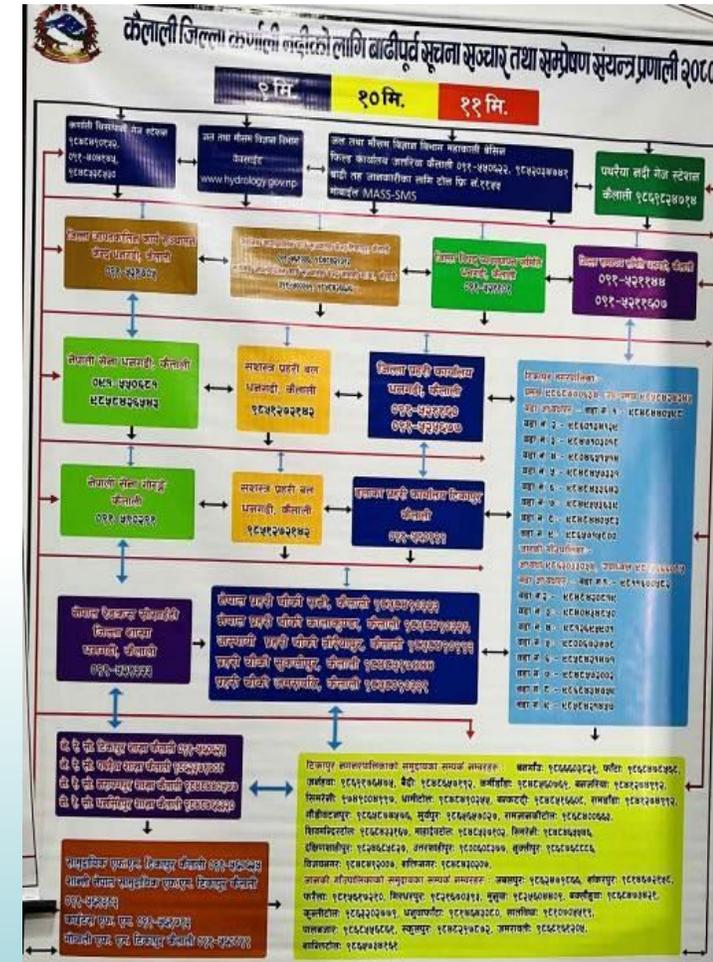
Community consultation,
Bhimdatta Municipality-12, Shree Narayan Tole,



THE RESEARCH STUDY: FINDINGS

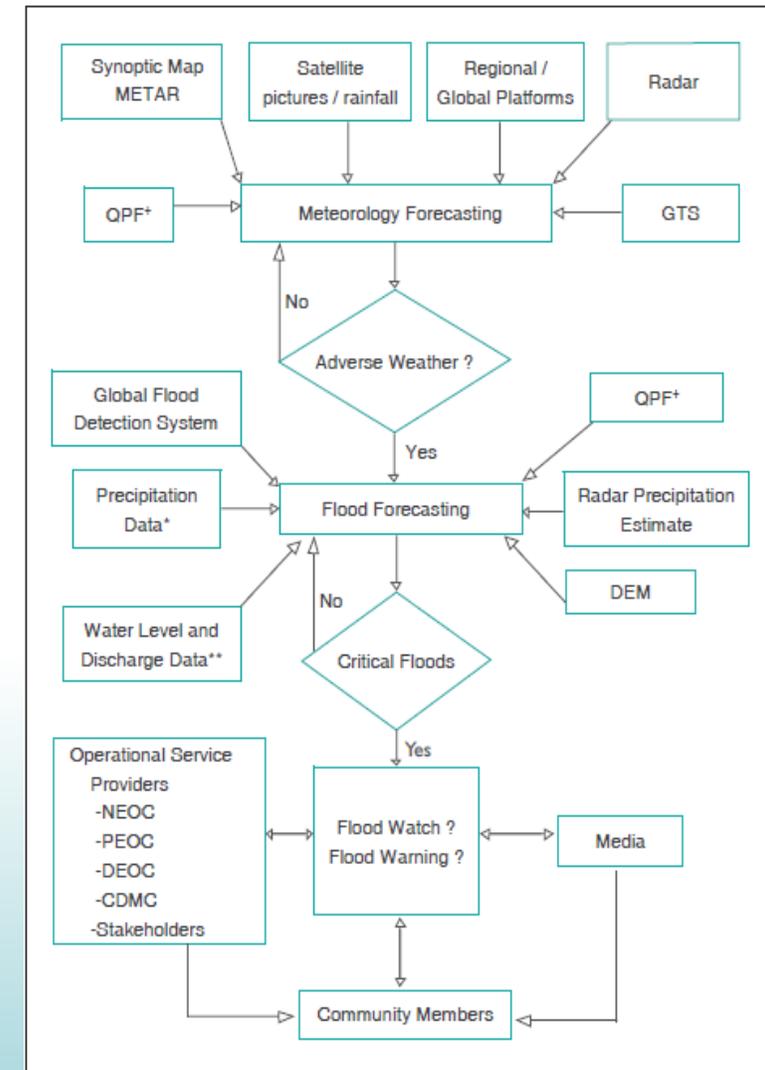
Information Flow and Communication on EWS

- **Flood Alert System and Dissemination:** flood forecast and warning centers, employing various methods such as **internet, display boards, SMS texts**, and advanced models like the API to disseminate timely flood alerts.
- These alerts follow a three-stage process: a. flood watch, **b. flood warning**, and **c. severe flood warning** - community preparedness and immediate action in response to potential or imminent flooding.



THE RESEARCH STUDY: FINDINGS

- **Information Flow and Coordination:** Flood alerts engage DHM, NRCS, local government, Nepal Army, police, and District Committees, swiftly triggering responses and fostering collaboration among these entities for a coordinated reaction to flood threats.
- **Community Engagement and Communication:** NRCS municipal chapter uses local radio stations to relay flood alerts, ensuring a well-coordinated response at the grassroots level to protect lives and property in local communities.



THE RESEARCH STUDY: FINDINGS

Enhancing the Effectiveness of EWS in Mitigating Disaster and Climate Risks in Nepal:

Creating a powerful EWS in Nepal requires a thoughtful blend of local, traditional knowledge and modern science.

- **Blending Traditional Knowledge with Modern Science:** Effective EWS combines indigenous wisdom, passed down through generations, with modern technological tools like satellites and predictive modeling. This fusion enhances the system's ability to predict and mitigate climate-related risks.
- **Sector-Specific and Geographically Tailored Approaches:** Nepal's EWS targets region-specific risks such as GLOFs and landslides, employing tailored strategies for effective disaster preparedness in diverse geographical areas.
- **Continuous Improvement and Inclusive Communication:** Establishing robust communication networks ensures timely dissemination of warnings across all community layers, promoting inclusivity and unified disaster response efforts.

THE RESEARCH STUDY: FINDINGS

Experience of development partners implementing Anticipatory Action:

- Absence of precise multi-hazard early warning systems, particularly in hydro-meteorological areas, makes it challenging to identify triggers and execute anticipatory action. Some development partners are, however, testing and piloting anticipatory initiatives in their zones.
- Development partners also justify their post-disaster relief by saying that they work as a part of Anticipatory Action on community sensitization about early warnings, stockpiling relief supplies, and bolstering early warning systems
- WFP faced criticism for its anticipatory strategies in Tikapur Municipality due to financial support discrepancies causing community discord, prompting caution against cash-based interventions by the local government.

THE RESEARCH STUDY: FINDINGS

- Mercy Corps employed a targeted anticipatory action strategy, consulting communities to identify vulnerable HHs with varied levels of vulnerability. They provided financial support ***in anticipation of droughts and food shortages in Kalikot and Surkhet*** following reduced winter rainfall forecasts in 2022 and 2023.
- Mercy Corps also launched a pioneering initiative introduced ***forecast-based humanitarian support*** to communities that had been identified in advance while also harnessing the program's established expertise in DRR in the Laljhadi RM, situated along the Dodha river system within Kanchanpur district.
- With the collaborative effort between local governments, private technical service providers such as Vox Crow for IVR messaging, and Prabhu Bank for financing, A total of 373 households across 14 communities benefited from Unconditional Cash Assistance distributed via ATM Cards.



THE RESEARCH STUDY: FINDINGS

- The NRCS and People in Need (PIN) have recently worked in an Anticipatory Action or forecast-based financing approach, aligning their activities with SRSP.
- Start Fund has been working in anticipation alert since 2021 through implementing partners, but their project periods are of short duration, and yet, they are not involved in CT activities.
- Currently, organizations like DCA or NRCS are executing their projects on anticipatory action that include river modelling, strengthening local EWS, capacity building on Anticipatory Action to local level officials, supporting in formulating Anticipatory Action protocol for making ground.



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सुदृढ परियोजना

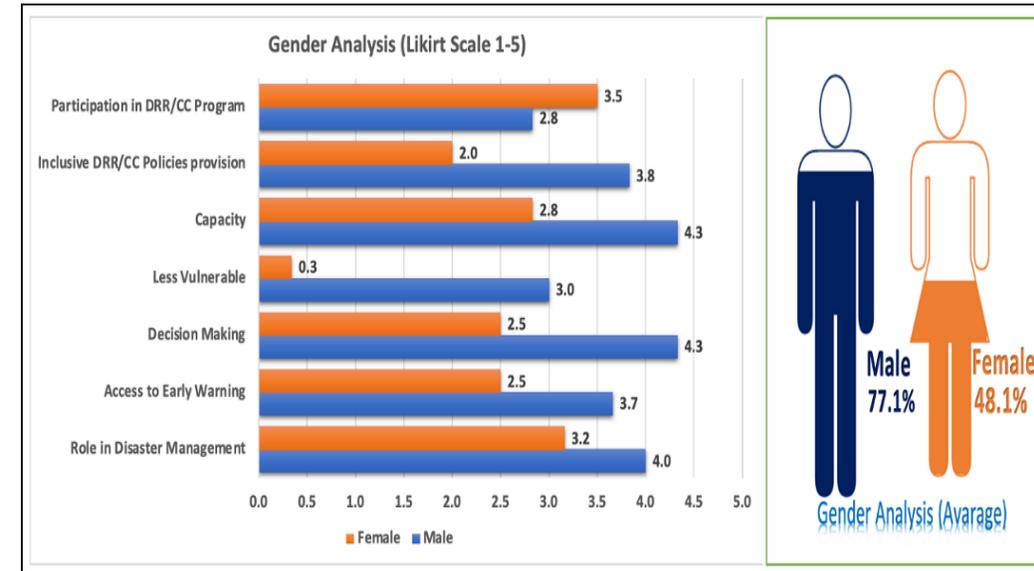
 **NNSWA**
Nepal National Society for Water and Disaster Preparedness
Kathmandu

 **DCA**
actalliance

THE RESEARCH STUDY: FINDINGS

Gender Analysis in Anticipatory Action

- The gender analysis conducted for DRR/CC in the realization that climatic alterations and the aftermath of disasters vary significantly across gender lines.
- The analysis aimed to understand how these phenomena affect different genders, providing insights for tailored strategies addressing their unique needs.
- The assessment focused on seven criteria: Disaster management role, EWS access, decision-making, vulnerabilities, capacities, inclusive DRR/CC policies, and program participation.



THE RESEARCH STUDY: RECOMMENDATION

For Federal Government

- Develop clear, comprehensive guidelines for cash voucher assistance detailing roles and responsibilities for both government and non-governmental agencies.
- Officially recognize anticipatory action in disaster management policies to enhance proactive use of early warning systems for preparedness and response.
- Establish formal mechanisms for non-governmental agencies to distribute cash assistance during disasters, potentially revising existing laws or regulations.
- Invest in enhancing early warning systems, including improved technology, data analysis, training for effective communication, and infrastructure in disaster-prone areas.
- Collaborate with international organizations and donors to secure funding and technical support for disaster risk reduction and anticipatory action initiatives.

THE RESEARCH STUDY: RECOMMENDATION

For Local Government

- Enhance community-based EWS, integrating risk knowledge and capacity building, and use technology for efficient communication and response coordination.
- Push for the recognition and integration of anticipatory action in collaboration with national authorities for proactive disaster risk reduction.
- Develop Anticipatory Action Guidelines for local disaster preparedness, including trigger points for cash assistance and communication with NGOs.
- Foster close collaboration with development partners to leverage their expertise and resources in anticipatory action and disaster response.
- Create flexible mechanisms for cash distribution during disasters, clearly defining procedures, roles, and responsibilities.
- Partner with organizations like Oxfam to utilize their experience in anticipatory action and cash distribution.
- Formulate and implement local-level anticipatory action plans, customized to each community's specific risks and needs, and integrate them into wider disaster management strategies.

THE RESEARCH STUDY: RECOMMENDATION

For Development Partner

- Collaborate with other organizations to advocate for policy changes allowing NGOs to distribute cash voucher assistance, utilizing research, public campaigns, and dialogues with government bodies.
- Work closely with local governments to align cash distribution and anticipatory action strategies, offering technical support and resources to enhance disaster preparedness.
- Contribute to early warning systems by providing data, technology, and expertise, and strengthen these systems in partnership with local and national institutions.
- Conduct research on indigenous practices for disaster forecasting and information dissemination, and integrate these practices into early warning systems.
- Launch pilot anticipatory action programs in disaster-prone areas with local governments, focusing on capacity building, community involvement, and gender considerations.
- Support research on the effectiveness of anticipatory action in Nepal, share findings with governments, and advocate for increased funding and gender inclusivity in disaster management.

Thank you !