

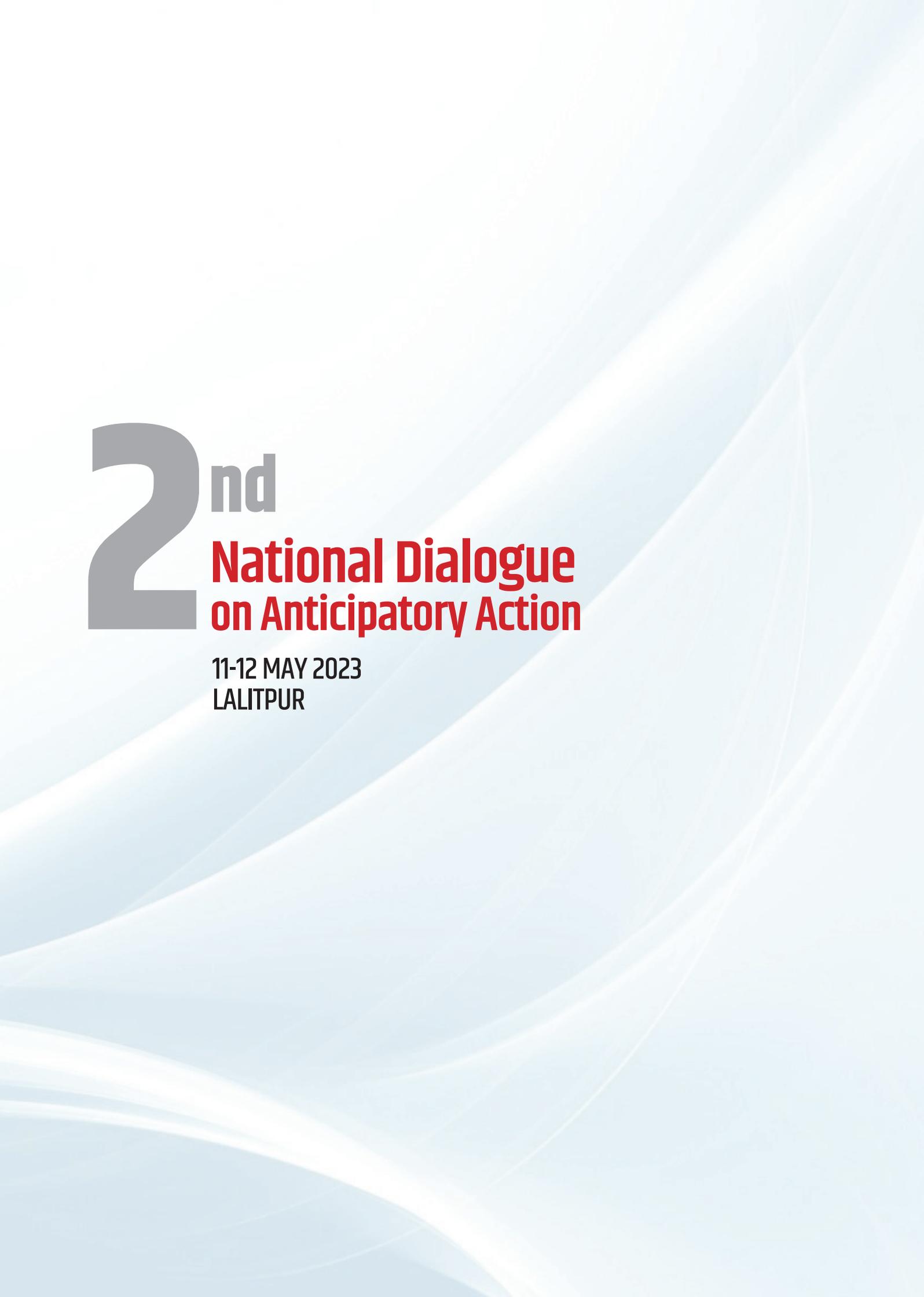


Government of Nepal
Ministry of Home Affairs
National Disaster Risk Reduction & Management Authority



2nd National Dialogue on Anticipatory Action

11-12 MAY 2023
LALITPUR



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Foreword

The 2nd National Dialogue on Anticipatory Action in Nepal was convened with the goal of cultivating a forward-thinking approach to disaster risk management, one that is firmly rooted in proactive measures rather than reactive responses. As we gathered to share insights and experiences, we found ourselves standing at the nexus of innovation, collaboration, and building resilience. The Dialogue offered practitioners a platform to showcase their good practices, exchange experiences and lessons based on concrete examples and to inform the policy direction to be taken for Anticipatory Action (AA) in Nepal. This gathering follows the success of the 1st National Dialogue on AA held in 2022 and serves as a key event for the National Platform for Disaster Risk Reduction (NPDRR).

I am glad to present you the event proceeding report that serves as a testament to the rich discussions that ensued during the dialogue. It not only provides a comprehensive documentation of the meaningful discourse that transpired but also lays out key action points that emerged from it, charting a path towards our shared vision on AA for the coming year.



Our thematic focus this year was threefold:

1. Risks Flood, landslide, heat wave, cold wave and health hazards;
2. Disaster Risk Financing including Risk Transfer Mechanisms; and
3. Shock Responsive Social Protection (SRSP).

Through these three thematic areas, we aimed to deepen our understanding and strengthen our capacities for AA. The discourse during the dialogue signalled a pivotal shift in Nepal's approach to disaster management – a move from conventional disaster response to a more scientific risk informed and policy-based approach. The National Disaster Risk Reduction and Management Authority (NDRRMA) echoes this paradigm shift, pledging its commitment to strengthening AA and integrating it into this year's monsoon preparedness and response plan.

The next step for a high risk country like ours is to synergise efforts towards AA across all sectors. This includes the establishment of an Anticipatory Action Clinic, a dedicated centre for knowledge exchange, and a collective approach among government agencies, non-profit organisations, academia, the private sector and local communities. We envision a future where Nepal stands as an exemplary model for AA on both regional and global platforms. And we are profoundly grateful to our partners who are helping us forge this pathway.

I would like to express my heartfelt appreciation to the Danish Red Cross and the Nepal Red Cross Society for supporting the event. Additionally, the significant contributions from our financial and technical partners including the DpNet, the International Federation of Red Cross and Red Crescent Societies the Red Cross Climate Centre, Finnish Red Cross, Mercy Corps, Plan International Nepal, Dan Church Aid, Save the Children, Practical Action, People in Need, UNFPA, UNICEF, Oxfam, Start Fund Nepal and WHO.

Together, we are creating a future that is not only prepared for disaster but also anticipates it. We look forward to continuing this essential dialogue and evolving our shared commitment to Anticipatory Action in Nepal.

Anil Pokhrel

Chief Executive
National Disaster Risk Reduction and
Management Authority
Ministry of Home Affairs, Government of Nepal

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Background

Prone to many natural hazards such as earthquakes, landslides, and floods, Nepal has begun operationalizing anticipatory action to effectively save lives and reduce suffering. In recent years, the Community of Practice on AA and Shock Responsive Social Protection has been a platform that brings together over sixty member organisations. A synergised and consolidated approach for AA among the government agencies, non-profit, academia, private sector and knowledge of communities can establish Nepal as an exemplary model in AA at the regional and global level.

The National Disaster Risk Reduction and Management Authority (NDRRMA) is organising the Second National Dialogue on Anticipatory Action in Nepal, scheduled for 11-12 May 2023 in Kathmandu. The aim is to convene stakeholders from various sectors to discuss and enhance Nepal's commitment to anticipatory action. This gathering follows the highly successful First National Dialogue on Anticipatory Action, held in 2022, which signified a critical milestone in the country's pursuit of establishing a constructive discourse around anticipatory action, exchange experiences and lessons based on concrete examples and experiences and to inform the policy direction to be taken for Anticipatory Action in Nepal.

The Second National Dialogue on Anticipatory Action will offer a unique forum to review the advancements made since the first dialogue, share

knowledge and evidence from the implementation and scale-up of anticipatory action. The discourse created around the event will bring the experiences from the field to connect community knowledge with science and policies. By pinpointing good practices, gaps, roadblocks, and milestones, participants will collaborate to outline a joint path forward for all government and non-government agencies involved in disaster risk reduction and management.

The outcome of this event is also expected to contribute to the Asia-Pacific Regional Dialogue Platform on Anticipatory Action, happening in Kathmandu in June 2023. This will enable Nepal to impart its valuable insights and experiences to its regional counterparts, fostering a spirit of cooperation and mutual learning. In addition, the idea and ambition of developing a national roadmap to integrate and mainstream coordinated anticipatory action into all aspects of humanitarian response and preparedness is being considered. Once formulated, this roadmap will become an integral part of a "coherent story" for anticipatory action in Nepal, emphasising the importance of coordinated collaboration amongst all relevant agencies. The Second National Dialogue Platform on Anticipatory Action will serve as a crucial step in exploring the potential of this ambitious vision, further underscoring Nepal's dedication to saving lives and building a more resilient future through advanced approaches to disaster risk management.

Organizing Team

The 2nd National Dialogue on Anticipatory Action is being hosted by the National Disaster Risk Reduction and Management Authority (NDRRMA) as a National Platform for DRR (NPDRR) Dialogue. The Nepal Red Cross Society and Danish Red Cross are co-leading the event. Technical partners for the event are Red Cross Red Crescent Climate Centre, Finnish Red Cross, International Federation of Red Cross Society, Mercy Corps, Plan International Nepal, Dan Church Aid, Save the Children, Practical Action, People in Need, UNFPA, UNICEF, Oxfam and Start Fund Nepal.

Opening Session

The opening ceremony of the national event commenced with Ms. Ranjana Shrestha welcoming all attendees and providing an overview of the program's objectives and outline. Mr. Anil Pokhrel, Chief Executive Officer of the National Disaster Risk Reduction and Management Authority (NDRRMA) presided over the event, while Dr. Gangalal Tuladhar of the National Disaster Risk Reduction and Management Council served as the chief guest.

During the event, Ms. Hira Devi Paudel, NDRRMA's Under-Secretary, delivered the welcome remarks and expressed her optimism about the fruitful outcome of the program based on the enthusiastic energy displayed by the audience. Ms. Paudel emphasized that Nepal is taking its initial steps towards anticipatory action and expressed hope for the creation of a concrete work plan during the two-day National Dialogue. This plan would serve as a motivation for Nepal to showcase its efforts on the international stage, such as at the upcoming Asia Pacific Dialogue Platform.

Mr. Madhab Uprety from the RCRCRC reflected on the progress made since the first national dialogue. He highlighted that anticipatory action, although a well-established practice worldwide, was relatively new for Nepal until a year ago. The upcoming second national dialogue would focus on specific hazards in Nepal, including landslides, floods, heatwaves, cold waves, and health issues. The program aimed to assess the progress made in the past year and establish a roadmap for the future.

Mr. Rajendra Sharma Sr. Div. Hydrologist, NDRRMA, presented on the topic of Localizing AA in Nepal. He emphasized the significance of conducting vulnerability mapping as part of preparedness efforts and showcased advancements in forecasting science that provided extended windows of opportunity for early response. Mr. Sharma also discussed the ongoing pilot projects for anticipatory actions and the introduction of audio-based emergency warning and notification systems in certain municipalities.

Mr. Surya Thapa, Chairperson of DPNET, welcomed the participants and highlighted Nepal's shift from disaster response to preparedness and prevention, gradually moving towards anticipatory action. He emphasized the importance of collective efforts in streamlining anticipatory action.

Dr. Gangalal Tuladhar, representing the National Council for Disaster Risk Reduction and Management, extended warm greetings and thanked the event organizers. He shared his experiences in disaster risk reduction efforts, including the establishment of the NDRRMA. Mr. Tuladhar stressed the importance of science-based policies and their distribution for community action. He expressed his desire for the conclusions of the event to be summarized in bullet points, allowing effective communication in upcoming meetings.

In his speech, Mr. Anil Pokhrel, Chief Executive of the NDRRMA, welcomed the guests and participants, appreciating the fusion of art and science depicted in the first-ever scientific mural art shared during the event. He discussed the evolution of the NDRRMA, proposed establishing a “clinic” for manageable anticipatory action, and highlighted the challenges of accessing financing mechanisms for loss and damage. Mr. Pokhrel emphasized the need to integrate anticipatory action into frameworks through

strategies incorporating indigenous art, culture, and language. He acknowledged Nepal’s past emphasis on response activities and announced its listing among the top-priority countries for advancing the multi-hazard early warning system by the UN. Mr. Pokhrel encouraged collaboration to save lives and property, expressed gratitude to supporting agencies, and concluded by requesting the team to provide bullet-point summaries of the event’s conclusions for further dissemination.



Thematic Session

Flood Risks- Moderator- Niru Pradhan, Danish Red Cross

Lessons from the field

Municipal experiences on Anticipatory Action (AA) by Nirmala Chaudhary, DRR focal person, Tikapur Municipality

During her presentation, Ms. Chaudhary highlighted Tikapur Municipality's vulnerability to flooding and its use of the BIPAD platform for updates. She discussed the legislative aspects of disaster risk reduction and management (DRRM) and mentioned the municipality's initiatives, including identifying vulnerable households and digitizing their data. The municipality manages a 15 million disaster management fund for pre-operational activities based on forecasts. They conduct mock drills and recently completed a workshop on early actions and flood forecasting. The municipality also organized a workshop on shock-responsive social protection. Although the local emergency operation center (LEOC) is not operational 24/7 due to limited resources, regular mock drills are conducted, and an effective communication system is in place. The municipality plans to engage child clubs for better communication and has been collecting phone numbers and area codes to improve communication capabilities.

Community led anticipatory actions in Mahakali River Basin, Ganesh Thagunna, DCA/NNSWA
Mr. Thagunna shared the B-ready initiative in Dodhara Chandani Municipality, a high-risk flood area near the Jogbudha River. The initiative involves a community disaster management committee that includes stay-at-home women and youth clubs.

They disseminate weather forecasts to provide timely information to the community. Mr. Thagunna highlighted the importance of community-led communication as they are the first responders and the most affected. Ongoing efforts focus on improving the early warning system through consultations and drills. Measures include readiness and activation triggers, go-to bags, evacuation areas, rescue materials, and bank accounts for vulnerable households. Challenges include the impact of an Indian barrage, lack of early warning systems for the river, forecasting limitations, and financial constraints.

Lessons from Forecast based Action mechanism by Dinee Tamang, Mercy Corps

During his presentation, Mr. Tamang explained how Mercy Corps implements forecast-based action (fba) using DHM forecasts and their own observations. They provided unconditional cash transfers to support drought anticipation. They maintained a 15-day alert period and a 7-day trigger period. In Laljhadi and Punarbas, Mercy Corps collected household-level data, ensuring effective practices like prompt response, accurate targeting, and digital technology use. Local government authorities were also involved. Limitations in small-river system forecasting were acknowledged, along with challenges in data availability, local forecasting systems, monitoring and evaluation, community readiness, digital literacy, and collaboration among agencies.

Community centric EWS in lower Karnali basin by Dharam Uprety, Practical Action

During the presentation, Mr. Uprety highlighted the significance of early warning for disaster risk reduction, stating that it can lead to a 30% decrease in loss and damage. He stressed the importance of placing the community at the core of the early warning system. The community-based early warning system (CBEWS) comprises four key elements: risk knowledge, risk monitoring, risk communication and dissemination, and community capacity. Mr. Uprety emphasized the need to enhance the community's capacity within CBEWS, as it contributes to reducing loss and damage, as evidenced by national data before and after 2014. He concluded his presentation by showcasing images of CBEWS in various regions of Nepal and emphasizing the necessity of an end-to-end early warning system.

Panel discussion on flood risks-Moderator, Dinesh Gurung, Dan Church Aid

Panelist instead of participants:

- Archana Shrestha, Deputy Director General, DHM
- Dr. Mandira Shrestha, Senior Water Specialist, ICIMOD
- Rajendra Sharma, Under Secretary, NDRRMA
- Kishor Limbu, Mayor, Dodhara Chandani Municipality
- Hari Karki, UNFPA
- Prem Awasthi, UNRCO

Where are we on Anticipatory Action?

DHM has been engaged in forecasting for periods ranging from 24 hours to three days. They have implemented observation-based forecasting, which utilizes information on upstream water levels, in order to predict floods and save lives. Additionally, DHM has begun conducting seasonal forecasts, and Mercy Corps has demonstrated how these forecasts can be applied effectively. However, recent incidents in Manang and Melamchi have exposed the limited understanding of weather

patterns. Ensuring timely and sufficient availability of data remains a challenge. It is crucial to maintain continuous weather monitoring, while simultaneously continuing efforts on relief and rescue operations.

Flash flood prediction in the context of Nepal

Different types of flash floods present a unique challenge in terms of forecasting due to their immediate occurrence. ICIMOD has been actively involved in predicting both riverine floods and flash floods by utilizing data from DHM's gauging stations. Various tools, including the "high impact weather assessment tool" (HIWAT), have been developed for predicting flash floods. HIWAT employs numerical models to forecast precipitation, temperature, and other factors such as lightning and wind, providing a lead time of 54 hours. However, a significant obstacle in accurately predicting flash floods is the limited availability of stream gauging stations.

Where is NDRRMA on Multi-hazard risk assessment? How can stakeholders work together?

Vulnerability mapping plays a crucial role in anticipatory action. The BIPAD portal of NDRRMA aims to gather reliable data regarding the location, timing, and nature of vulnerabilities. This effort is also crucial to prevent redundant work and conserve resources.

What are the local level endeavors and challenges concerning anticipatory action ?

Disaster Risk Reduction and Management (DRRM) is a key responsibility of the municipality. The municipal DRR fund currently holds NPR 20 million and requires a minimum balance of NPR 500,000. With support from various stakeholders, we have successfully created disaster management committees and task forces, set up a local emergency operation center (LEOC), and engaged youth and vulnerable groups in DRRM efforts.

UN agencies' efforts

We have been involved in AA at the local level for a considerable period, despite the recent introduction of the term. On a national scale, a humanitarian country team is deployed during major disasters. The AA approach facilitates proactive measures to prevent and reduce the impact of such events. Recently, the UN agency has been advancing the principles of "One nation one plan" and "Early warning for all." UN agencies are collaborating in risk communication, preparedness, and AA efforts. Consequently, the country has observed advancements in decision-making and accountability within the field of disaster risk reduction and management (DRRM).

No one left behind approach in the context of Anticipatory Action

To successfully implement the "no one is left behind" approach, it is essential to establish a shared understanding among all stakeholders. Priority should be given to vulnerable groups including children, pregnant and lactating women, and persons with disabilities. It is crucial to recognize that gender-based violence can worsen in emergencies, so a protective perspective must be integrated into planning and action, particularly in service delivery. Additionally, it is important to prioritize the functioning of critical services during emergencies, drawing lessons from past incidents in Kailali and Bardiya. It is now necessary to transition from theoretical discussions to practical implementation.

Questions for Discussion

During the open floor discussion, the following queries and feedback were received from the participants:

- What method is used for cash transfer?
- How do you identify vulnerable groups?
- How is threshold defined? What happens when prediction does not match reality?
- Some important things to consider are health service mapping during risk mapping to address immediate health impact after flood (severe hypothermia, severe injury, infectious diseases spread within 10 days), infrastructure damage (e.g., transportation cut-off) and post-traumatic stress disorder.

- What's your view on protection of seeds for food security in high-risk communities?
- How can we set trigger when data and information collection is a challenge, especially in small river systems and in areas bordering India?
- How do you target message for illiterate population?

Responses from the speakers:

Before any predicted incidents occur, the vulnerable groups are required to open bank accounts. Once a trigger is activated, mobile messages are sent with a three-day time frame. The program faces challenges regarding standardizing standard operating procedures (sops), program flexibility, data deficiency in certain areas, and limited dynamic modelling forecasts. Currently, unconditional cash transfer is considered the most suitable option, as it respects the individuals' choice and preserves their dignity.

Household surveys were conducted using 60 indicators to determine socioeconomic status, access to information and resources, and demographic data, among other factors. A data agreement was signed with the municipality. While conditional vouchers were initially distributed, cash transfer has proven to be more effective and is now given higher priority. Beneficiaries receive orientation before receiving cash.

The threshold is determined based on rainfall, river height, and downstream flow forecasts. Errors may occur if there are changes in the waterway flow. The Department of Hydrology and Meteorology (DHM) is currently in the process of revising data where there have been changes in waterways. Ideally, a survey should be conducted after every major flood, but the DHM currently lacks the capacity to do so. False alarms can happen during forecasts, but it is more important to prioritize precautionary measures than to regret the consequences later.

Key takeaways of the session

1. Legislative aspects of disaster risk reduction and management (DRRM) are being addressed within the local level such as Tikapur Municipality and local governments are being proactive in managing a disaster management fund for pre-operational activities based on disaster forecasts. Municipalities are establishing an effective communication system using suitable equipment and the local language to reach out to vulnerable communities and also engaging child clubs for improved communication and is collecting phone numbers and area codes to enhance communication capabilities.
2. There are ongoing efforts include improving the early warning information system, readiness triggers, and activation triggers and preparedness measures such as go-to bags, evacuation and shelter areas, and stockpiling of search and rescue materials have been implemented at local level.
3. There are challenges in area such as Dodhara Chandani Municipality which include the transboundary issues such as impact of the barrage in India, absence of early warning systems for the Jogbudha River, limitations in forecasting technology, and financial constraints.
4. The efforts are being made in implementing Forecast-based action (fba) by utilizing DHM forecasts and observations to support cash transfers in anticipation of drought. This include effective practices such as prompt response, accurate targeting, and digital technology usage are being demonstrated in the local governments such as Laljhadi and Punarbas. There is need of collaboration with local government authorities in tackling the challenges for fba.
5. Early warning systems are crucial for disaster risk reduction, with a potential 30% reduction in loss and damage. The community should be at the core of the early warning system. Community-based early warning systems (CBEWS) consist of risk knowledge, monitoring, communication, and community capacity. Enhancing community capacity within CBEWS reduces loss and damage, as supported by national data. End-to-end early warning systems are necessary for effective disaster risk reduction.
6. Understanding of risks and action at the individual level is important. At the organizational level, collective work is cheaper and more effective, and we can save lives and livelihood.
7. There are ongoing works on improving observation of diverse time period ranging from 24 hours, 3 days, weekly weather outlook (for agriculture) to seasonal forecast. There is also demand for sub-seasonal forecast. The monsoon precipitation this year is predicted to be below normal, but it does not mean we can rule out floods. We need to be on alert for floods as well as drought.
8. NDRRMA will coordinate with the stakeholders and connect the dots and will continue the work on anticipatory action.

Landslide Risk

Landslide Susceptibility Mapping from Sajag Nepal - Gopi Bashyal

Mr. Bashyal presented on the science of landslide susceptibility mapping based on inventories from 2014-2022 for 14 earthquake-affected districts. Sajag Nepal is working on mapping other districts using ALDI and Google Earth Engine. These maps project future risk areas. The initiative reveals an increase in landslides after the 2015 earthquakes. Further study is needed to determine the cause. Mr. Bashyal emphasized the importance of distinguishing between active and new landslides. Analysis of Sindhupalchowk District indicates that the increase since 2017 is due to reactivation of existing landslides. He concluded that 38% of Nepal's population lives in landslide-prone areas.

Tools for landslide early warning - Dr. Basanta Adhikari, IHRR

Mr. Adhikari presented on "Pahiro Alert," a tool for AA in landslide prone Naraharinath Rural Municipality. He explained the methodology, which utilized DHM data for forecasting and nowcasting. The approach involved household-level data collection and a web interface for vulnerability assessment. The method provides geographic-specific landslide risk, and the local government praised the artificial alert system and drills.

Experiences from Impact Based Forecasting for Landslides- Ms. Shanti Kandel, DHM

Ms. Kandel introduced weather forecast and impact-based forecasting (IBF), using the example of the Hud-Hud cyclone in 2014 to highlight the importance of IBF in minimizing loss. She emphasized the significance of real-time monitoring, community involvement, and DHM's efforts to upgrade forecasting, improve message readability, and increase bulletin frequency. Collaboration with stakeholders was stressed to streamline IBF, and gratitude was expressed to partners working with

DHM. DHM successfully piloted IBF in the 2079 monsoon with 12 municipalities in Sindhupalchowk district, using information collection through Viber and phone calls. Challenges in IBF include complex geography, limited technology, public understanding of forecast accuracy, and resource constraints.

Municipal experiences on Anticipatory Action - Ganga Sagar Paudel, DRR focal person, Bhotekoshi Rural Municipality

Mr. Paudel introduced Bhotekoshi Municipality, which was severely affected by landslides after the 2015 earthquake. Based on the rainfall forecast, Bhotekoshi Palika has prepared the forecast based action protocol that details out several activities that can be done once the DHM issues rainfall forecasts.

The municipality has conducted geohazard assessment in the area and taken various actions for disaster risk reduction and management (DRRM), including vulnerability mapping, search and rescue training, community disaster management committee formation, simulations, establishing a local emergency operations center (LEOC), identifying safe spaces, and early warning dissemination through SMS, social media, and digital media in simplified language. Focal persons are assigned for risk communication in at-risk communities. The municipality social security allowances were distributed early in May/June to the SSA beneficiaries before the monsoon strikes.

Panel discussion on landslide risks moderated by Mr. Dinanath Bhandari

What are the local level initiatives? In what areas are support needed from the federal or provincial level? - Dichen Sherpa, Bhotekoshi Rural Municipality

The previous presentation covered most initiatives. In emergencies, we provide NPR 25,000 to affected households. We organized community trainings for search and rescue. Monitoring our large area is challenging, so we need support in resources,

communication, and transportation. People's representatives are still learning about disaster preparedness. More effort is needed to develop acts, regulations, and supporting documents.

Is landslide early warning system possible? Why is the public not well educated about geology? - Megh Raj Dhital, Central Department of Geology, Tribhuvan University

Landslides are natural and occur when people are exposed to them. Earth's geomorphology constantly changes due to various factors, making it a complex subject. Understanding soil, rock, and moisture properties is crucial as both low and high rainfall can trigger landslides. Yes it is possible, but we have to understand the geomorphology of landslides.

The capacity and current roles of Department of Mines and Geology and current collaborative initiatives- Sunita Bhattari, Department of Mines and Geology (DMG)

Since 1986, the Department of Mines and Geology has addressed floods. In 2018, a dedicated division was created for landslide surveys, resulting in hazard maps with recommendations. The department will prioritize three new provinces next year and offer human resources to other government agencies upon request. However, limited financing and human resources present significant challenges.

NDRRMA Coordination with other agencies- Rajendra Sharma, NDRRMA

NDRRMA collaborates with DHM, DMG, and Tribhuvan University, prioritizing sectoral partnerships. We've created a guide for this purpose and are actively coordinating with subject experts to circulate advisory mechanisms.

Does war room exist in Nepal? How will messages be standardized to be broadcast from different media? What is DHM doing to address the information deficiency for trans-boundary Rivers? - Shanti Kandel, DHM

Ms. Kandel raised various questions: Do you understand forecast terminology? How can we simplify the language? Which communication channel and mechanism are effective for sharing special forecasts? We have already published this year's weather outlook. Is this information useful for AA? She also mentioned that DHM is learning and improving. The concept of a war room needs to be studied for implementation in Nepal. Previously, IBF was piloted by donor funded projects, but now the government is allocating a budget for IBF. DHM aims to standardize messages but currently lacks a specific answer. The data sharing issue must be resolved at a higher level as India does not provide data even when Nepal offers to purchase it.

Questions for Discussion

During the open floor discussion, the following queries and feedback were received from the participants:

- How can private sector continue business plan in emergency? How can private sector be involved in AA?
- What is the Communication risk mechanism for landslide risks? How does DHM collaborate with NDRRMA?
- In what way can we engage the private sector, especially in insurance sector? Do you already see them engaged in your sectors?
- Has Bhotekoshi municipality assured that the social security allowance anticipating emergency is used appropriately? How do you collaborate with truck drivers?
- How can landslide risks be communicated in simple language to other stakeholders? Has there been any attempt to disseminate key messages from the landslide risk maps?

Response from Speakers

- Municipality monitors social security allowance use through ward chairpersons.
- Private sector engaged in plantation programs and other preparedness activities.
- Municipality's disaster section informs the public through social media and assigns monitors in at-risk areas.

- Close coordination with private sector to address Hydro-metrological hazards. DHM prioritizes public-private partnership, including forecast-based insurance program. Private media involved in forecast dissemination. DHM collaborates with various media and aims to produce school curriculum. DHM seeks new collaboration with information, communication, and response.
 - Further work needed to communicate landslide mapping to the general public. Coordination planned with NDRRMA and MOHA for accessibility. Zonation map lacks detail at the local level. Orientation planned for local technical persons to understand specific area risks.
 - Settlement relocation supported in Katari Municipality, Udayapur District through collaborative study with NDRRMA. Private sector involved in inventory.
2. There are many good initiatives happening in understanding landslide science and also on the application of existing science and knowledge base in Nepal.
 3. Upscaling collaboration between the Department of Mines and Geology, academia and other relevant government agencies for understanding landslide risk is a key element to build the foundation for landslide Anticipatory Action in Nepal.
 4. Understanding the risk of landslides will also mean engaging the community themselves in landslide monitoring.
 5. As shown by Bhotekoshi Rural Municipality ; there is potential for using rainfall forecast for community anticipatory action for saving lives. Thus, extending the NDRRMA-DHM led Impact based forecasting in landslide prone areas through multisectoral approach could be one of the important ways forward.
 6. Risk communication should be promoted through multiple channels of communication and media; also engaging the private sector and also through government led platforms, such as BIPAD portal.

Key takeaways of the session

1. It will be important for more investment and research in understanding geomorphology; understanding the geomorphology answers critical questions for landslide DRR and AA: which areas are geologically exposed to landslides?

Health Related Hazards

Status of health hazard in Nepal - Dr. Pawan Kumar Shah, Ministry of Health and Population

Dr. Pawan Kumar Shah, Senior Medical Superintendent at MOHP, presented on health hazards in Nepal and their impact on life and the economy. He emphasized the need for epidemiological studies, vulnerability assessments, and aligning anticipatory actions with forecast mechanisms to address public health risks. The presentation highlighted hazards like dengue, cholera, and antimicrobial resistance. Dr. Shah discussed steps for implementing anticipatory actions, shared lessons from the Philippines Red Cross on dengue prevention, and proposed additional measures such as risk assessments, early warning systems, and effective communication. He stressed multi-sectoral coordination and collaboration to minimize health risks. The presentation provided insights into Nepal's health hazards and the importance of anticipatory actions.

International experience of working on AA on Dengue by Mohammad Shahjahan, Bangladesh Red Cross Society (Virtual)

Mr. Mohammad Shahjahan from Bangladesh virtually participated in the national dialogue on dengue. He discussed population risk factors, the impact of heat waves on vulnerable groups, trigger criteria, early actions, and community support. Vulnerable populations like slum dwellers and outdoor workers were identified as high risk. Heat waves caused health issues and triggered hazards like fires. Anticipatory action required extreme event thresholds, temperature and humidity forecasts, and specific lead times. Early actions involved coordination, monitoring, data collection, procurement, and awareness raising. Support to communities included dengue remedial wards, staff training, protective equipment, diagnostic kits, and awareness campaigns. Challenges included urban microclimates, limited monitoring, short lead times, lack of awareness, and insufficient localized data. The presentation stressed the importance of readiness, surveillance, and proactive measures through coordination, early warning systems, and community engagement.

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2nd National
Dialogue on
Anticipatory
Action

Group Discussion on anticipatory actions for health hazards

POLICY GAPS

No clear distinction in understanding between AA and preparedness

No policy and legal framework for AA in health sector

Gap in standard threshold and trigger mechanism.

OPERATION ISSUES

Lacking multisectoral coordination

Resource diversion

Poor functioning of government and poor communication

Inadequate human resource in emergency

Lack of research based evidence

RESOURCE CONSTRAINTS

Capital constraint

Human Resource constraints

Way Forward

- Establish policy guidelines for trigger points and thresholds, develop a risk monitoring system, and ensure intersectoral coordination.
- Improve multisector coordination, resource management, and communication. Strengthen human resource capacity and volunteer database and develop evidence-based resources.
- Establish risk transfer mechanisms, manage finances in emergencies, engage private hospitals and labs proactively. Enhance capacity and mobilize volunteers. Pilot AA framework for a sample health hazard (e.g., Dengue).

Key Takeaway Messages

1. The status of health hazards in Nepal was presented, emphasizing the importance of epidemiological studies, vulnerability assessments, and aligning anticipatory actions with forecast mechanisms to address public health risks.
2. Hazards such as dengue, cholera, and antimicrobial resistance were highlighted as significant health risks in Nepal.
3. Anticipatory actions for health hazards include risk assessments, early warning systems, effective communication, and coordination among multiple sectors.
4. Lessons from the Philippines Red Cross on dengue prevention were shared, emphasizing the need for implementing anticipatory actions.
5. Vulnerable populations, such as slum dwellers and outdoor workers, were identified as high-risk groups for dengue and other health hazards, particularly during heat waves.
6. Anticipatory action for dengue and other health hazards requires specific trigger criteria, temperature and humidity forecasts, and lead times for effective response.
7. Challenges in addressing health hazards include urban microclimates, limited monitoring, short lead times, lack of awareness, and insufficient localized data.
8. The way forward involves establishing policy guidelines, improving multisector coordination and communication, strengthening human resource capacity, engaging private hospitals and labs, and piloting anticipatory action frameworks for sample health hazards like dengue.

Heat and Cold Wave

Experience of acting in anticipation of coldwave in 2022 - Suraj Shrestha, CARE Nepal

Mr. Suraj Shrestha from Care Nepal presented on anticipating cold waves in 2022. He discussed the impacts on vulnerable populations and the challenges of limited data. They used open-source data for the cold wave anticipation project in selected districts, benefiting 1,586 families (9,060 individuals). Support included food vouchers, winterization kits, and nutritional assistance. Mr. Shrestha mentioned the development of a web-based tool using weather station data to forecast heat and cold waves, aiming to improve preparedness. Collaboration with the Department of Hydrology and Meteorology is sought for accuracy and effectiveness.

Early Action Protocol for coldwave in Banke district- Tara Bhusal, Save the Children

Tara Bhusal's presentation for Save the Children focused on the Early Action Protocol for a cold wave in Banke district. The protocol was based on analyzing 20 years of weather forecast data to identify trigger points for warnings and activation. The presentation emphasized the monitoring of weather bulletins and data from the European Centre for Medium-Range Weather Forecasts. In response to the cold wave, actions were taken to provide blankets to infants under six months and elderly individuals above 80 years. The local government also contributed 150 blankets to support these efforts.

Challenges and opportunities for cold wave in Nepal- Sabin Adhikari, PIN

Sabin Adhikari's presentation discussed the challenges and opportunities of cold waves in Nepal, focusing on lessons learned, impacts, and recommendations. The presentation highlighted the START FUND ALERT N-11-COLD WAVE RESPONSE project in Rautahat and Sarlahi districts, emphasizing the benefits of using social security allowance and

landless data for targeting beneficiaries. It was found that pre-meetings before disasters and providing relief packages instead of single items were more effective. The project also strengthened the implementing partners' response mechanisms and coordination skills. Recommendations included engaging in prior discussions for external support, providing non-food items in anticipation of cold waves, and updating fund implementation guidelines to address cold and heat waves. Voices from beneficiaries, including pregnant women, people with disabilities, and local government representatives, provided valuable insights into the challenges and the need for tailored responses.

Experiences, opportunities and challenges on heat wave by Dolakh Dangi and Prakash DC, Nepal Red Cross Society, Nepalgunj SMC

Dolakh Dangi and Prakash DC gave a joint presentation on heat waves in Nepal, sharing their experiences, challenges, and opportunities. They focused on Nepalgunj, where extreme heat events with temperatures exceeding 40°C and high humidity are common. Nepalgunj has taken the lead in addressing heat-related issues in the region. They identified vulnerable groups and discussed achievements, including the development of a policy brief and conducting a city stakeholders' workshop. A heat awareness campaign was organized by the Red Cross and Nepalgunj SMC. The importance of coordination among government, communities, and stakeholders was emphasized. They discussed future actions such as heat impact analysis, regular monitoring of the heat action plan, and creating awareness materials in local languages. Mr. DC presented the Nepalgunj Heat Action Plan 2023, which outlined actions for different seasons and long-term urban planning measures.

Status of cold wave and heat wave forecasting and EWS in Nepal - Govinda Kumar Jha, DHM

Mr. Govinda Kumar Jha discussed the current state of cold wave and heat wave forecasting and early warning systems in Nepal. He explained the importance of understanding heat waves and cold waves and shared that DHM has developed

a weather dashboard to monitor temperature and other factors for predicting these events. The dashboard will soon be accessible to the public, increasing awareness and preparedness. Collaboration with organizations like NDRRMA, Red Cross, and Care Nepal has been established to strengthen the forecasting and early warning systems, ensuring a comprehensive response to extreme weather. The presentation mainly focused on cold wave forecasting, while acknowledging the need for further development in heat wave forecasting. Efforts are being made to improve heat wave forecasts and define specific thresholds. The cold wave classification presented included four categories with assigned color codes, and regular updates are sent to weather stations for effective communication. Mr. Jha showcased the forecasting process using real-time data and satellite images, emphasizing the integration of advanced technology.

Group discussion

1. How can we use the current DHM forecast products on cold wave and heat wave? What additional information/lead time is required for the cold wave/heat wave AA in your context?
2. What kind of impacts can we address by acting in an anticipation in cold waves and heat waves? How do we monitor the impacts of cold wave and heat wave at the local

Closing Remarks of the session

Govinda Kumar Jha expressed gratitude for presenting on behalf of DHM, emphasizing the significance of understanding heat and cold waves. He pledged to present the recommendations to improve DHM's readiness and comprehension of these weather events. Participants were encouraged to reach out to DHM for weather forecast inquiries. Mr. Jha appreciated the valuable contributions from the attendees and wished for the event's success, urging ongoing collaboration and knowledge exchange to enhance weather forecasting preparedness.

Key Takeaway Messages

1. Anticipating cold waves in Nepal is crucial for protecting vulnerable populations, but it poses challenges due to limited data. Open-source data and web-based tools using weather station data are being used to forecast cold waves and improve preparedness.

2. The Early Action Protocol for cold waves in Banke district analyses weather forecast data to identify trigger points for warnings and activation. Actions taken include providing blankets to infants and the elderly, with contributions from local government and organizations like Save the Children.
3. The challenges and opportunities of cold waves in Nepal were discussed, emphasizing the importance of using social security allowance and landless data for targeting beneficiaries. Pre-meetings before disasters and providing relief packages instead of single items were found to be more effective.
4. The experiences, opportunities, and challenges of heat waves in Nepal, particularly in Nepalgunj, were shared. The importance of coordination among government, communities, and stakeholders in addressing heat-related issues was highlighted. Future actions include heat impact analysis and regular monitoring of the heat action plan.
5. The current state of cold wave and heat wave forecasting and early warning systems in Nepal was discussed. The Department of Hydrology and Meteorology (DHM) has developed a weather dashboard for monitoring temperature and other factors. Collaboration with organizations like NDRRMA, Red Cross, and Care Nepal aims to strengthen forecasting and early warning systems.
6. DHM's forecast products on cold wave and heat wave can be utilized, but additional information and lead time are required for effective cold wave/heat wave action in specific contexts.
7. Acting in anticipation of cold waves and heat waves can address impacts such as providing food vouchers, winterization kits, nutritional assistance, blankets, and relief packages to vulnerable populations. Monitoring the impacts of these events at the local level is essential for effective response and tailored interventions.
8. Collaboration, ongoing knowledge exchange, and enhanced weather forecasting preparedness are crucial for addressing heat and cold waves in Nepal. The session emphasized the significance of understanding these weather events and the importance of continuous improvement in readiness and comprehension.

Effective Risk Communication for Anticipatory Action

Audio Emergency Notification System - Rajendra Sharma, Sr. Div. Hydrologist, NDRRMA and Real Time Solutions

Rajendra Sharma presented the Audio Emergency Notification System, installed at 34 locations in Nepal through collaboration with organizations like Red Cross, Save the Children, and PIN. Mr. Shrishant from Real-Time Solutions (RTS) provided detailed information about the system. The presentation covered three stages: sense, decide, and act, and various alerting methods. It emphasized the importance of mass warning, internet connectivity, and local control. Key features included central server control, online accessibility, silent testing, and lightning resistance. Suitable installation locations and maintenance considerations were discussed. Future scaling and potential applications were also mentioned for lightning alerts, earthquakes, glacial lake outburst floods (glofs), and wildlife-related emergencies.

Designing communication for Persons With Disabilities- Ms. Reena Chaudhary, GEDSI Focal Person, NDRRMA

Reena Chaudhary discussed designing communication for persons with disabilities, focusing on prioritizing disability during disasters according to the categorization by the government of Nepal. She highlighted the different identity cards for disabled individuals based on severity and their association with disaster management. Chaudhary addressed communication challenges during emergencies, questioning the effectiveness of existing alerts and providing examples of difficulties faced by people with disabilities. She emphasized vulnerable populations and presented global disability prevalence data and international laws related to disabilities and disaster risk reduction. Chaudhary discussed NDRRMA's role in data collection, early warning systems, and accessibility through various formats. She also mentioned initiatives like shock-responsive social protection and manuals for accessibility during disasters.

Collaborative action for EWS with NDRRMA and DHM, Rudra Adhikari, NRCS

Rudra Adhikari discussed the collaborative action between NRCS, NDRRMA, and DHM for early warning systems. He highlighted the role of Red Cross as an auxiliary to the government globally, with risk reduction as a global mandate. Mr. Adhikari emphasized the importance of risk identification and shared the measures taken by NRCS, such as recording local weather conditions data, updating cold wave and fog situation data, installing local gauge scales, and engaging in early messaging and risk communication through local volunteers and social media. He mentioned joint simulation exercises, the installation of audio emergency warning and notification systems, and collaboration in technical support, capacity building, flood exposure data collection, policy engagement, and community of practice.

Volunteer Management of NRCS

Mr. Adhikari also presented the volunteer management system of NRCS, highlighting the conceptual framework and internal and external factors. He mentioned the existence of guiding documents and standard operating procedures for volunteer management. Mr. Adhikari discussed different types of volunteers, including occasional, regular, skilled, corporate, youth, international, virtual, and emergency volunteers. He shared data on the involvement of volunteers in disaster and crisis management and outlined various areas of volunteer mobilization, such as assessment planning, community mobilization, advocacy, data collection, and management. He emphasized the capacity building of volunteers through tailored training programs. He discussed the way forward, which included linking with the government's volunteer bureau, developing mobilization guidelines and plans, database management, capacity building, logistics, visibility, personal protective equipment, and retention, rewards, and recognition of volunteers.

Key Takeaway Messages

1. The Audio Emergency Notification System is a crucial tool installed at 34 locations in Nepal, enabling effective risk communication during emergencies. It emphasizes the importance of mass warning, internet connectivity, and local control, with key features like central server control and online accessibility.
2. There is high need of designing inclusive communication strategies for persons with disabilities during disasters. The presentation emphasized the need to prioritize disability and addressed the challenges faced by people with disabilities during emergencies. It discussed global disability prevalence data, international laws, and initiatives like shock-responsive social protection for ensuring accessibility.
3. The collaborative efforts between NRCS, NDRRMA, and DHM in implementing early warning systems needs to be further enhanced. The role of the Red Cross as an auxiliary to the government and the importance of risk identification. The presentation highlighted measures like data recording, local engagement, and risk communication through social media and local volunteers.
4. The volunteer management system of NRCS provides the conceptual framework and various types of volunteers involved in disaster and crisis management. The importance of capacity building through tailored training programs, guidelines, and standard operating procedures for volunteer management was emphasized.
5. NRCS has key role in data collection, early warning systems, and risk communication. There is importance of recording local weather conditions, updating data on cold wave and fog situations, and engaging in risk communication through local volunteers and social media.
6. There is need of collaboration between organizations like Red Cross, Save the Children, and PIN in implementing effective risk communication strategies. Collaboration in technical support, capacity building, flood exposure data collection, policy engagement, and community of practice were highlighted.
7. In coming days there should be plans to link with the government's volunteer bureau, develop mobilization guidelines, and improve database management. Ensuring capacity building, logistics, personal protective equipment, and retention, rewards, and recognition of volunteers were highlighted for long-term sustainability.

National Information Systems for Anticipatory Action

BIPAD Portal for Risk, Hazard, Exposure, Vulnerability Information and Dashboard for IBF –Pradip Khatiwada, YIL

Mr. Khatiwada's presentation primarily focused on the IBF (Impact based forecasting) system. The IBF system is currently undergoing testing and has a lead time of 10 days. During the presentation, Mr. Khatiwada demonstrated how different sections of the portal could be accessed and viewed. It is worth noting that the technology behind the IBF system is open source. Currently, the IBF dashboard hosts GLOFAS data (Global Flood Awareness System) and will soon include DHM data (Department of Hydrology and Meteorology). The testing phase involves data from the Chispani and Chepang community. Several factors are being taken into consideration, including the source of the forecast, lead time, warning messages, flood hazard assessment, level of exposure and impact, and intervention priority. The IBF system is designed to be flexible and adaptable to different database requirements. It is capable of quantifying and visualizing potential impacts. Mr. Khatiwada mentioned that the testing process and approach involve the active participation of youth and young professionals to bridge the gap between scientific knowledge and policymaking. Additionally, Mr. Khatiwada showcased an informative artwork in Rajapur Municipality, which is a result of collaboration among DHM, NDRRMA, Rajapur Municipality, and the Youth Innovation Lab. This collaboration has enabled effective risk communication in the area.

Volunteer Management System, Dhruba Khadka, Under Secretary, NDRRMA and Umesh Dhakal, NRCS

Mr. Khadka commenced the presentation by providing a brief overview of the formation and mobilization guideline for the disaster management volunteer bureau in 2078. The guideline entails the establishment of bureaus at the national, provincial, district, and local levels, outlining the respective roles and responsibilities of the volunteers. The National Emergency Operations Center (NEOC) is responsible for maintaining the information of all volunteers through an online system. It is essential for the skills of volunteers to align with the specific nature of the disaster event and its associated requirements. Volunteer tasks may involve search and rescue, medical treatment, food management, distribution of shelter and non-food items, among others. For each requirement, an event is created, and volunteers can apply based on their skills and interests. The administration of the bureau is responsible for organizing shifts for volunteers, and recognition is given to those who demonstrate exceptional performance annually. Future plans include the development of a mobile application, conducting trainings at the local level, establishing a communication system within the volunteer community, and consolidating all volunteers' data and information in the national system.

Resource Management System -GODAM - Arun Paudel, IT Specialist, NDRRMA

During the presentation, Mr. Paudel began by displaying a letter from NDRRMA that outlined the essential materials needed for a ward-level warehouse. The Godam system is closely connected to the BIPAD portal and takes into account the shared use of a warehouse by multiple users. Mr. Paudel demonstrated the functionality of the website, explaining that it includes categories, items, and clusters. Additionally, the website permits local governments to borrow resources from neighboring local governments. Importantly, it is not necessary to log in to view the warehouse locations.

warehouse
godam data local government
ndrma information
bipad portal capacity
clear institutional arrangement organization

Experience sharing on volunteer mobilization: Kishor Limbu, Mayor, Dodhara Chandani Municipality

Mr. Limbu mentioned that the municipality is currently in the process of learning and implementing new approaches to mobilize volunteers. Introducing youth mobilization is a positive step, especially considering the vulnerability of many adolescents to drug abuse. When discussing challenges, Mr. Limbu highlighted that some youth have expectations of receiving payment for their volunteer work. The majority of current volunteers are students. To enhance the capabilities of volunteers, the municipality has been collaborating with other organizations to provide training in search and rescue operations. It is crucial to regularly update volunteers' information due to the high rate of migration for education and employment opportunities. Additionally, there is a need for further capacity development programs for volunteers as emergency situations involve addressing complex issues like gender equality, social inclusion, protection, and mental health. Mr. Limbu concluded his remarks by expressing his dedication to continue working on volunteer mobilization.

Key takeaways from the session

1. The IBF (Impact based forecasting) system is an open-source technology with a lead time of 10 days, designed to quantify and visualize potential impacts of hazards.
2. The IBF dashboard currently includes GLOFAS data and will soon incorporate DHM data for flood hazard assessment and intervention priority.
3. The testing phase of the IBF system involves the active participation of youth and young professionals, bridging the gap between scientific knowledge and policymaking.
4. The collaboration among DHM, NDRRMA, Rajapur Municipality, and the Youth Innovation Lab has enabled effective risk communication through informative artwork.
5. The volunteer management system ensures that volunteers' skills align with the specific nature of disaster events and their associated requirements.
6. Volunteers can apply for different tasks based on their skills and interests, such as search and rescue, medical treatment, and food management.
7. Future plans for the volunteer management system include the development of a mobile application, local-level trainings, and a communication system within the volunteer community.
8. The Godam resource management system is closely connected to the BIPAD portal and facilitates shared use of warehouses by multiple users.
9. The Godam website allows local governments to borrow resources from neighboring local governments, promoting efficient resource management during emergencies.
10. Mobilizing youth volunteers is crucial, and collaborations with other organizations for training and capacity development can enhance their capabilities in addressing complex issues during emergency situations.

Humanitarian and development actors together for shock responsive social protection program in Nepal

Moderator: Hemanta Dangal, FbA-SRSP Technical Lead

Leveraging SSA in Janaki Rural Municipality by Netra Prasad Jaisi, DRR focal person

Netra Prasad Jaisi discussed leveraging Social Security Allowance (SSA) in Janaki Rural Municipality during the 2078-2079 flood season. Key activities included cash distribution through SSA and bank accounts, collecting contact information during registration, and sending risk communication alerts. Coordination between Social Security and Disaster Risk Reduction units was highlighted. The municipality collaborated with the Red Cross for implementing the SSA account system. Monetary relief was used for purchasing manure, repairing roofs, and paying school fees, verified by Red Cross volunteers. Learnings included the ease of using SSA accounts, considering weather forecasts for relief, and maintaining accurate beneficiary data. Verification of relief recipients was emphasized for proper assistance utilization.

SRSP in Rapti Sonari by Tara Bhusal, Save the Children

Tara Bhusal from SDC presented SRSP's experience in Rapti Sonari and Narainapur Rural Municipality. They used the Cold Wave Early Action Protocol.

Vulnerable groups were identified through social security and civil registration databases. DHM forecast data showed a slight chance of a cold wave in January 2023. Regular monitoring led to anticipatory action, initially through warning messages. Elderly individuals above 80 years were given two blankets each, identified through the social security database. Children below six months, identified through birth registration, received one baby pack each. The presentation highlighted the benefits of using these databases to target vulnerable populations. Challenges included locating individuals and incomplete contact information, overcome by public messaging.

SRSP Guideline by NDRRMA , Dhurba Bahadur Khadka, NDRRMA

The presentation covered disaster management, social security programs, SRSP, and policy improvement through a work plan. Challenges in disaster management were discussed, including data collection, relief processes, communication barriers, and delays in distribution. The need for relief criteria and hazard-specific work plans was emphasized. Social security programs were explored, including contribution-related programs like pensions and health insurance, and vulnerability-based programs for various groups. The utilization of social security programs in disaster management and relief distribution was highlighted. Examples from Kenya, the Philippines, UNICEF, and the Red Cross demonstrated the effectiveness of social security programs in disaster relief. The presentation concluded with recommendations for improvement, such as an inclusive social cost, distributing relief according to the disaster type, ensuring sufficient relief amounts, and developing supportive policy frameworks and institutional management.



Panel Discussion

What is SRSP?- Thakur Dhakal, UNICEF

The idea of Shock Responsive Social Protection (SRSP) involves utilizing the social security system in times of disasters to assist vulnerable populations. Under normal circumstances, Nepal's social security system offers aid based on specific criteria. However, in the past, it has been difficult to identify those affected by disasters. To be considered shock-responsive, the social security system needs to go beyond the pre-identified vulnerable groups and encompass other potentially vulnerable populations. It should also have the flexibility to provide additional financial assistance to individuals and households impacted by emergencies. The collection of data is crucial to ensure the effectiveness of the program. In essence, SRSP aims to guarantee that during emergencies, the social security system can effectively reach and support the affected and vulnerable population, addressing their immediate needs and facilitating their recovery process.

Please provide your insights regarding the ongoing strategy of giving priority to vulnerable populations before, during, and after disasters, as a representative of SPCSN- Tillotam Poudel, SPCSN

Mr. Poudel conveyed appreciation towards the Nepal government for giving priority to the vulnerable population in handling disasters. Nonetheless, there are still difficulties in delivering aid to marginalized communities, mainly because of problems such as citizenship limitations and discrimination. There are also gaps in the execution of policies and coordination among government agencies. It is crucial to pay more attention to proactive measures. Poudel stressed the significance of being prepared and promoting cooperation between different sectors, enabling the vulnerable to access livelihood opportunities. Both the government and stakeholders have a joint responsibility to address these matters in order to provide improved assistance during times of disaster.

How can you establish a connection between humanitarian assistance and various types of disasters? - Dinesh Gurung, Dan Church Aid

The primary objective in disaster response is to safeguard lives and livelihoods. However, there has been a global increase in humanitarian crises, which has made the allocation of resources more complicated. To tackle this issue, a shift is necessary from traditional humanitarian assistance to a shock-responsive social protection (SRSP) approach. Although SRSP has been implemented in Nepal, there is a lack of coordination with humanitarian aid, which demands a greater proactive approach from humanitarian actors and better cooperation between social protection mechanisms. SRSP plays a crucial role in identifying and classifying beneficiaries, leading to faster and more effective relief processes, as well as facilitating resource mobilization. In the future, by addressing social assistance resources through legal means and utilizing SRSP as a tool, we can enhance the connection between humanitarian and social protection actors..

What do the studies conducted by UNICEF, both at the national and international levels, reveal about the SRSP? - Thakur Dhakal, UNICEF

Mr. Dhakal brought attention to the difficulties encountered in gathering data following an earthquake for the purpose of distributing relief packages. They suggested utilizing the existing social security system database as a means to efficiently allocate relief based on vulnerability. This realization highlighted the effectiveness of incorporating the social security database into disaster response efforts. Additionally, they shared the results of a study conducted in six districts with a high risk of flooding, which assessed the ability of the social security system to respond to shocks. The findings indicated that around 60% of the most vulnerable population was covered by the social protection system. Although the social protection

system alone may not be entirely adequate, it presents a simpler, more cost-effective, and convenient approach. Currently, a pilot project is underway to explore the application of blockchain technology. In summary, Mr. Dhakal underscored the potential benefits of leveraging the social security system to enhance disaster response and recovery endeavours.

In general, what is your assessment of the policies linked to SRSP? - Jasmine Rajbhandari, World Bank

The global understanding of Risk and Shock Responsive Social Protection (SRSP) can be viewed from three main perspectives. Firstly, the involvement of government leadership is crucial for the success of SRSP initiatives. Secondly, effective coordination among different institutions involved in social protection is essential. It is important to establish clear coordination and foster collaboration and communication among stakeholders to ensure the SRSP system functions effectively. Thirdly, the practicality and feasibility of the social security system are of utmost importance. While the social security system primarily addresses social vulnerabilities, the Prime Minister Employment Program focuses on economic vulnerabilities. It is recommended to merge both datasets to encompass both socially and economically vulnerable populations, thus adopting a more comprehensive approach to social protection. Additionally, there is a need for further enhancements in making the system more flexible.

What next in SRSP in Nepal ? - Dhurba Khadka, NDRRMA

It is crucial to combine the valuable knowledge gained from various studies conducted. An important focus should be placed on improving cooperation and aligning efforts among the stakeholders involved in the project, fostering better collaboration. Additionally, it is vital to prioritize strengthening the capabilities of the institutions involved.

Discussion

In terms of flexibility, the Social Security System in Nepal is excellent. However, there are some challenges in terms of implementation. It is important to address these challenges in order to make the system more effective.

One suggestion is to adopt a cash-based approach, which has been shown to be more effective in other developing countries. This would require some refinement of the policy, and the system to be more flexible and responsive to disasters. It is also important to ensure that the system is properly implemented.

Coordination between the disaster risk reduction (DRR) system and the social security system is also important. This would allow for a more comprehensive approach to providing assistance to those affected by disasters. A combined guideline could be developed to ensure that the two systems are working together effectively.

The government has shown its proactiveness by drafting the SRSP guideline. This is evident in the policy commitment from the national level, which stresses sensitivity and pro-activity.

Key takeaways from the session

1. Nepal's social protection programme, particularly Social Security Allowance is ready for Shock Responsive Social Protection (SRSP)
2. Targeting has been always an issue during humanitarian assistance in which the leveraging of social protection database could be a proper solution
3. There has been some small examples about SRSP in Nepal, now we need to focus on how SRSP would be beneficial during large scale disasters
4. The Shock Responsive Social Protection guideline that Nepal government has been endorsing shall be a milestone to scale up the approach throughout Nepal.
5. The provision of anticipatory actions in the Shock Responsive Social Protection guideline can be a breakthrough in the traditional humanitarian assistance approach.

Disaster Risk Financing

Disaster Risk Financing - provision, opportunities and challenges by Yogesh Parajuli, DRF Focal Person, NDRRMA

The presentation focused on the emergency concept, institutional mechanism, financial instruments, risk transfer, and climate change impact. Disaster risk financing (DRF) addresses the impacts on finance by disasters. The four core groups that benefit from DRF are the government, homeowners and smes, farmers, and the poorest group. Policy provisions on DRF include the constitution, the fifteenth plan, DRF national strategy 2078, and DRF implementation plan 2078.

The presenter said that investment on DRR pays in the long term. The Prime Minister's Disaster Relief Fund, contingencies fund, and Natural calamity relief fund are the funds available at the national level. The government can also reallocate funds post-disaster. Major institutions involved in DRF include the ministries of finance, forest and environment, planning commission, NDRRMA, and national insurance authority.

The presenter also pointed out that climate change has been fuelling disasters in recent years, increasing risks and associated costs. Nepal has adopted the green, resilient, and inclusive development (GRID) approach as a national long-term vision in 2021. The presenter emphasized that Nepal needs to strengthen governance for climate change adaptation and DRM. For that, NDRRMA, moha, mofaga, mof, and mofe must work together.

Risk Transfer mechanisms - provisions, opportunities and challenges by Director, Nepal Insurance Authority by Rajendra Maharjan, Deputy Director, Nepal Insurance Authority

The presentation started with an overview of the Nepal Insurance Authority's provincial offices. The presenter informed that insurance outreach had reached 40%. Insurance needs and coverage had been increasing over the years. Insurance has two products: traditional and index insurance. The latest

policies on disaster risk financing (DRF) include the new Insurance Act 2079, insurance bylaws 2080 (which are nearing completion), and insurance policy. Major insurance types covering natural perils include property insurance, engineering insurance, and agriculture insurance.

Speaking about index-based insurance, the presenter informed that anticipatory insurance had been piloted in the far west of Nepal. Challenges in the field include lack of data on loss and damage, inadequate weather stations, complex geographical terrain, limited satellite data, high premium rates, and government subsidy in the premium pilot project.

Moving forward, it is necessary to enhance awareness of the product, expand insurance to other crops and other vulnerable areas, enhance coordination with local government, use new technology-driven distribution channels, develop new products using satellite data, and liaise with development partners and research organizations for innovative product development.

Panel Discussion

Existing legislation in Disaster Risk Financing- Dr Gangalal Thuladhar, National Council for Disaster Risk Reduction and Management

The Constitution of Nepal prioritizes disaster risk reduction and management (DRRM). The DRRM Act of 2017, DRRM Regulation of 2019, and Disaster Risk Reduction National Strategic Plan of Action of 2018-2030 outline the responsibilities of DRRM. As such, the whole society, including political parties and governments, are responsible for DRRM. In practice, disaster preparedness was not being fully implemented. However, there has been a move from response to preparedness. The National Disaster Risk Reduction and Management Council (NDRRMC) and the Council for Disaster Resilience (CDR) have been spearheading DRRM with a focus on preparedness. This is an ongoing process that will take time and requires action from all strata of society.

The national fund had adequate finance, but the money was not being used effectively due to a response-minded attitude. Existing disaster risk reduction and management (DRRM) strategies already included provisions for risk transfer. Gaps in existing laws and policies could be amended.

Dr. Tuladhar expressed his commitment to raise concerns about anticipatory action and risk transfer at National DRRM Council meetings. He also requested for a briefing on actionable steps that policy makers could take.

Risk Transfer at Local Level – Nirmala Chaudhary, DRR Focal Person, Tikapur Municipality

Initial efforts to transfer risk were made by starting a flood insurance program based on certain criteria. However, it was difficult to convince people to participate in the program, and there was no clear guideline on the subject. The program was ultimately advanced based on financial institution policy, but it was found that financial institutions were less interested in insuring high-risk projects.

In general, physical infrastructure development was prioritized more than other works. Good practices of the local government were shared through a whatsapp group with other local governments. A DM fund operation guideline was developed to facilitate further work on DRRM. Meetings were also organized with disaster management committees at ward and municipal levels, focusing on DRF. Kailali District started inviting disaster focal persons of the local government in district level meetings as well. Moving forward, it was necessary to amend legislation as needed.

Here are some of the challenges that were faced in budget allocation and expenditure:

- Physical infrastructure development was prioritized more than other works.
- There was a lack of coordination between different levels of government.
- There was a lack of transparency and accountability in the use of funds.

The following steps were taken to address these challenges:

- Good practices of the local government were shared through a whatsapp group with other local governments.
- A DM fund operation guideline was developed to facilitate further work on DRRM.
- Meetings were also organized with disaster management committees at ward and municipal levels, focusing on Disaster Risk Financing.
- Kailali District started inviting disaster focal persons of the local government in district level meetings as well.

Share of disaster insurance in the country and current efforts- Chunky Chettri- Chairperson, Non-Life Insurance Association

The biggest challenge to the insurance industry in the past was weak motivation for insurance. Awareness was increasing particularly in village areas, resulting in increased micro-insurance and agricultural insurance. Nepal was at high risk of multiple disasters, but the country had the capacity to carry out risk transfer through insurance, even though catastrophic loss may require additional help. Stating that there were two certainties in life—one must die after being born; and one must pay tax after earning—the speaker encouraged participants to engage in insurance. On the way forward, in the past, we have continued to work on investment and risk transfer. We have reduced the premium for house insurance and worked to reduce casualties. Moving forward, we need to increase penetration. The public should trust the insurance mechanism. On our part, we are exploring new app development to enhance the insurance system.

Insurance and current efforts, challenges and the way forward- Piush Kayastha, ECHO

Insurance is a key tool for building resilience to disasters and other shocks. It can help people protect their assets, livelihoods, and income. However, there are a number of challenges to including target groups in insurance mechanisms. These include:

- High premiums: The cost of insurance can be high, especially for low-income households.
- Limited access to financial services: Many target groups do not have access to formal financial services, which makes it difficult for them to purchase insurance.
- Lack of awareness: Many people are not aware of the benefits of insurance or how to purchase it.
- Despite these challenges, there are a number of efforts underway to increase the use of insurance by target groups. These include:
 - Government subsidies: Governments can subsidize the cost of insurance for low-income households.
 - Microinsurance: Microinsurance is a type of insurance that is designed for low-income households. It typically has lower premiums and simplified terms and conditions.
 - Community-based insurance: Community-based insurance is a type of insurance that is purchased by a group of people. The premiums are pooled together and used to pay for claims.

The current challenges to building resilience to disasters include:

Increased frequency and diversity of disasters: Disasters are becoming more frequent and diverse. This is due to a number of factors, including climate change, population growth, and urbanization.

Out-migration: Out-migration is a challenge for building resilience because it can lead to a loss of social capital and community cohesion.

The way forward to build resilience to disasters includes:

- Investing in early warning systems: Early warning systems can help people to prepare for and respond to disasters.
- Building stronger infrastructure: Stronger infrastructure can help to reduce the damage caused by disasters.
- Improving disaster risk management practices: Disaster risk management practices can help to reduce the risk of disasters.
- Promoting community resilience: Community resilience can be built by strengthening social capital and community cohesion.

- Action-oriented round table discussions can be a valuable tool for addressing these challenges. These discussions can bring together stakeholders from a variety of sectors to share ideas and develop solutions.

By working together, we can build a more resilient future for all.

Discussion

During the open floor discussion, participants raised a number of queries and feedback on flood risk management, including:

- Why is the subsidy for index-based insurance not being implemented to the full extent? Panelists responded that it is not possible to provide subsidy to the whole population, and that the guideline needs to be amended to target specific groups.
- How can we focus on mainstreaming insurance and introducing insurance products related to fire incidents? Panelists suggested that governments and insurance companies work together to develop affordable and accessible insurance products, and to raise awareness of the importance of insurance.
- How can actors in Mahakali basin collaborate with national authorities to promote index-based insurance and carry out feasibility studies? Panelists suggested that actors in the Mahakali basin work together to develop a common plan for promoting index-based insurance, and to carry out feasibility studies to identify the most effective ways to implement it.
- How can houses without municipal approval be included in insurance schemes? Panelists suggested that governments and insurance companies work together to develop a way to include houses without municipal approval in insurance schemes, such as by providing subsidies or tax breaks to homeowners who insure their homes.
- Why is insurance less common among women? Panelists suggested that a study may be needed to identify the cause for low insurance among women. Among many, one factor could be the higher employment rate among men.

- The discussion highlighted the need for a comprehensive approach to flood risk management that includes a focus on insurance. Participants also identified a number of challenges to implementing insurance schemes, such as the need for subsidies, the need to raise awareness of the importance of insurance, and the need to include all households in insurance schemes.
3. NDRRMA and mofaga should localize DRF instruments and mechanisms including risk transfers at the local level for effective DRF service delivery to reduce burden to different government entities including local government on preparedness and response actions.
 4. Insurance policy jargons need to be simplified ensuring easy, swift and accessible payout process so local people trust and participate in risk transfer mechanism. The government and insurance companies should focus on covering most at risk people through launching innovative insurance packages and risk transfer mechanism.

Way forward for Disaster Risk Financing

1. NDRRMA should be the focal agency for coordination between DRR, Financing, and implementing stakeholders in formulating DRF legislation, policy and its implementation, i.e. Moha, mof, mofe, mofaga.
2. National Insurance Authority and Nepal Insurers' Association should conduct an awareness programme at local and provincial levels to promote existing insurance products and collaborate with the research organizations, local government, and development partners to develop innovative risk transfer products.

Closing Session

Future of Anticipatory Action in Nepal

Věra Exnerová, Country Director- People in Need, Nepal

In her video message, Vera reflected on the event and praised the excellent contributions and exciting projects that were discussed. She acknowledged the challenge of language and the difficulty of effective communication, but she remained hopeful that these challenges could be overcome. She expressed her eagerness to work together to maintain the positive energy generated during the event. Vera was also pleased to see representatives from the local government and community present, and she hoped that more people would come forward to share their work in the future.

David Fogden, Country Manager- Danish Red Cross

David Fogden, who has 15 years of experience in the humanitarian field, conveyed his enthusiasm regarding the active involvement in the national occasion. He stressed the significance of taking further action to assist vulnerable individuals and serve communities. He was delighted to observe a rise in the number of participants, from 60 in the initial discussion to nearly 130 in the subsequent one, which inspired a collective commitment to proactive measures. He expressed gratitude for the remarkable event and vowed to sustain his support through the Danish Red Cross. His ultimate message underscored the importance of collaboration and the drive to serve communities.

Jari Lauka, Counsellor, Development Cooperation, Finnish Embassy

Jari Lauka, in his opening statements, greeted and showed respect to the representatives of the Nepalese government, development partners, and all the participants. He expressed optimism for taking more targeted and effective action to benefit the communities. Mr. Lauka praised the three components of the event, namely science, policy, and action, as they aligned with the ongoing work in the communities. He expressed his contentment with the capability and cooperation of the Department of Hydrology and Meteorology (DHM), particularly their utilization of forecast and weather-related data. Since 2010, the Finnish government has collaborated with DHM and was pleased to learn about the incorporation of inclusive and accessible risk communication. He also acknowledged the support provided by the Finnish Red Cross in local-level initiatives. He concluded by expressing his enthusiasm for participating in the event, looking forward to future progress, and extending congratulations to all those involved.

Prem Awasthi, UNRCO

Prem Awasthi extended his warm regards and appreciation to all participants for engaging in a thorough and meaningful dialogue. He proceeded to outline his observations from the event, summarizing them into three key points:

- He expressed gratitude for the collective effort of individuals coming together to contribute to an insightful and lively discussion.
- He emphasized the significance of exchanging experiences and learning from various organizations, countries, and topics, deeming it a remarkable endeavor.
- He recognized the commendable endeavors of NDRRMA (National Disaster Risk Reduction and Management Authority) and stressed the crucial need to incorporate proactive measures within different sectors. Additionally, he referenced the UN's future course of action, which involves leveraging the most valuable learning experiences and progressing forward.

Umesh Dhakal , Executive Director, NRCS

Umesh Dhakal from NRCS highlighted the accomplishments related to the subject, stressing the significance of incorporating science, policies, and actions focused on preserving lives. He shared an important lesson learned from a trial initiative concerning proactive measures for the monsoon season, where funds were distributed but rainfall did not occur. He mentioned the triumph of the responsive social protection project and the forthcoming completion of the Monsoon preparedness and response strategy in the next 10 days. Mr. Dhakal also emphasized the necessity of addressing heat and cold waves based on insights gained from the Nepalgunj heat action plan project. He acknowledged the consideration of health risks and emphasized the importance of trigger mechanisms and thresholds. He expressed appreciation for the active engagement and lively discussion, reaffirming their dedication to safeguarding lives.

Surya Thapa, Chair dpnet, NPDRR

Surya Thapa, the Chair and NPDRR secretariat, stated that a comprehensive discussion took place covering various aspects, and he regarded the discussion as productive. He underscored the significance of collaborative efforts to transform the ideas discussed into practical actions. Mr. Thapa concluded his statement by expressing appreciation to all the participants.

Dr. Gangalal Tuladhar, National Council for Disaster Risk Reduction and Management

Dr. Gangalal Tuladhar initiated his concluding comments by emphasizing Mr. Umesh's statement regarding the life-saving potential of prevention. He emphasized the superiority of prevention over cure and extended congratulations to all participants for the event's successful conclusion. Tuladhar expressed appreciation for the valuable knowledge and insights gained throughout the event.

Anil Pokhrel, Chief Executive, NDRRMA

Anil Pokhrel, the CEO of NDRRMA, expressed his gratitude to the entire family and acknowledged everyone's contribution. He referred to a previous statement by Martin, questioning whether anticipatory action is overly complicated. He recognized the support received from organizations like the EU and IFRC in defining anticipatory action and expressed his appreciation for the collaborative effort that led to organic evolution. He noted the shift from traditional disaster response to a more scientific and policy-oriented approach. NDRRMA is fully dedicated to advancing anticipatory action and integrating it into this year's monsoon preparedness and response plan.

Mr. Pokhrel emphasized the importance of identifying priority actions, establishing frameworks, and sharing them at various events. He also proposed the establishment of a clinic through collaborative efforts, setting an example for progress in a country like Nepal, which faces multiple hazards. He emphasized the need to promote collective actions and plans, incorporating strategies such as GEDSI, Disaster Risk Financing, Multi-hazard early warning systems, and satellite image analysis. Mr. Pokhrel stressed the significance of learning from neighboring countries and adapting their ideas to the Nepali context. He concluded by expressing his hope for the family to grow each year.

Key Takeaways of the two days workshop

The first national dialogue on anticipatory action in Nepal identified best practices, lessons learned, and challenges. The second dialogue, which focused on multi-hazard risk including health, built on the first dialogue and identified additional challenges and opportunities. The participants agreed that collaboration and coordination between different agencies is essential for effective anticipatory action. They also agreed that more needs to be done to understand disaster risk, communicate effectively about risk, and protect and manage data. In addition, they called for increased international funding and support for anticipatory action in Nepal. Below are some key takeaways and recommendations from the workshop.

- Legislative aspects of DRRM are being addressed at the local level, with municipalities like Tikapur Municipality taking proactive measures. They are managing a disaster management fund and establishing effective communication systems using suitable equipment and the local language to reach vulnerable communities. Child clubs are also engaged for improved communication.
- Ongoing efforts include improving early warning systems, readiness triggers, and preparedness measures at the local level. This involves implementing measures like go-to bags, evacuation plans, stockpiling of search and rescue materials, and identifying shelter areas.
- Challenges in certain areas, such as Dodhara Chandani Municipality, include transboundary issues, limited forecasting technology, and financial constraints. Absence of early warning systems for the Jogbudha River poses additional challenges.
- Forecast-based action (fba) is being implemented using forecasts and observations from the Department of Hydrology and Meteorology (DHM) to support cash transfers in anticipation of drought. Effective practices in local governments such as Laljhadi and Punarbas include prompt response, accurate targeting, and the use of digital technology. Collaboration with local government authorities is needed to tackle challenges in fba.
- Early warning systems are crucial for disaster risk reduction, with potential for a 30% reduction in loss and damage. Community-based early warning systems (CBEWS) that focus on risk knowledge, monitoring, communication, and community capacity are essential. Enhancing community capacity within CBEWS reduces loss and damage, as supported by national data. End-to-end early warning systems are necessary for effective risk reduction.
- Understanding risks and taking action at the individual level is important, but collective work at the organizational level is cheaper and more effective, saving lives and livelihoods.
- Improving observation systems for various time periods, from short-term weather outlooks to seasonal forecasts, is a priority. While the monsoon precipitation this year is predicted to be below normal, the risk of floods should not be ruled out. Being alert for both floods and droughts is necessary.
- The National Disaster Risk Reduction and Management Authority (NDRRMA) will continue its work on anticipatory action and coordinate with stakeholders to connect the dots.
- More investment and research are needed to understand geomorphology, particularly in relation to landslide risk. Engaging the community in landslide monitoring is also important.
- Positive initiatives are being undertaken in understanding landslide science and applying existing knowledge in Nepal. Collaboration between the Department of Mines and Geology, academia, and relevant government agencies is crucial for landslide risk understanding and anticipatory action.
- Anticipatory action based on rainfall forecasts has shown potential for saving lives, as demonstrated by Bhotekoshi Rural Municipality. Extending impact-based forecasting in landslide-prone areas through a multisectoral approach is a promising way forward.

- Risk communication should be promoted through multiple channels, including media and engaging the private sector. Government-led platforms like the BIPAD portal are also valuable for risk communication.
- Anticipating cold waves is crucial for protecting vulnerable populations, and efforts are being made to improve forecasting using open-source data and web-based tools. Early action protocols in Banke district involve providing blankets and relief materials to infants and the elderly.
- Heat waves in Nepal, particularly in Nepalgunj, present challenges that require coordination among government, communities, and stakeholders. Heat impact analysis and regular monitoring of heat action plans are necessary.
- DHM's forecast products on cold waves and heat waves can be utilized, but additional information and lead time are required for effective action in specific contexts. Acting in anticipation of these events can address impacts on vulnerable populations by providing necessary assistance and relief.
- Collaboration, ongoing knowledge exchange, and enhanced weather forecasting preparedness are crucial for addressing heat and cold waves in Nepal. Continuous improvement in readiness and comprehension of these weather events is important for effective response.
- The Audio Emergency Notification System installed in Nepal plays a crucial role in effective risk communication during emergencies. Inclusive communication strategies for persons with disabilities during disasters should be designed, prioritizing disability and ensuring accessibility.
- Collaborative efforts between NRCS, NDRRMA, and DHM in implementing early warning systems need to be further enhanced. Local engagement, data recording, and risk communication through social media and local volunteers are highlighted as effective measures.
- The volunteer management system of NRCS provides a conceptual framework and various types of volunteers involved in disaster and crisis management. Capacity building through tailored training programs, guidelines, and standard operating procedures for volunteer management is emphasized.
- Collaboration between organizations like Red Cross, Save the Children, and PIN is needed to implement effective risk communication strategies. Technical support, capacity building, data collection, policy engagement, and community collaboration are highlighted for effective risk communication.
- Plans should be made to link with the government's volunteer bureau, develop mobilization guidelines, and improve database management. Ensuring capacity building, logistics, personal protective equipment, and rewards for volunteers are crucial for long-term sustainability.
- The IBF system is an open-source technology designed to quantify and visualize potential impacts of hazards, with a lead time of 10 days. The system involves active participation from youth and young professionals, bridging the gap between scientific knowledge and policymaking.
- Collaboration among DHM, NDRRMA, Rajapur Municipality, and the Youth Innovation Lab has enabled effective risk communication through informative artwork. Mobilizing youth volunteers and collaborations with other organizations can enhance capabilities in addressing complex issues during emergency situations.
- Nepal's social protection program, particularly the Social Security Allowance, is ready for Shock Responsive Social Protection (SRSP). Leveraging social protection databases and adopting anticipatory actions can be a breakthrough in the traditional humanitarian assistance approach.
- NDRRMA should be the focal agency for coordination between DRR, financing, and implementing stakeholders in formulating DRF legislation, policy, and its implementation. Localizing DRF instruments and mechanisms at the local level can improve service delivery and reduce the burden on different government entities.

- Collaboration between the National Insurance Authority, Nepal Insurers' Association, research organizations, local government, and development partners can promote existing insurance products and develop innovative risk transfer products. Simplifying insurance policy jargons and ensuring easy and accessible payout processes can increase trust and participation in risk transfer mechanisms.
- Develop more accurate and scientific weather forecast trigger mechanisms and thresholds. Use local language, audio-visual, and pictorial methods to communicate about risk. Increase cash readiness, strengthen volunteer capacity, expand, and maintain NDRRMA's disaster portal, and increase GODAM capacity for effective stockpiling and availability.
- Take NDRRMA as a hub institution and incorporate collaboration and coordination among all related institutions. Strengthen the volunteer bureau and develop a comprehensive database system for volunteers. Increase international funding and utilize it effectively to enhance.

Program Schedule

Time	Agenda	Responsible
Day 1 8:00 - 9:00 AM 9:00 - 10:15 AM 10:15 - 10:30 AM	Breakfast Opening Session <ul style="list-style-type: none"> ■ Reflecting on the one year since 1st National Dialogue by Madhab Uprety, Red Cross Red Cross Climate Center (10 minutes) ■ Localizing AA in Nepal by Rajendra Sharma, Sr. Div. Hydrologist, NDRRMA (10 minutes) ■ Remarks by Surya Thapa, Chair DpNet, NPDRR Secretariat (10 minutes) ■ Remarks by Dr. Gangalal Tuladhar, National Council for Disaster Risk Reduction and Management (10 minutes) ■ Closing remarks for opening session, Anil Pokhrel, Chief Executive, NDRRMA (10 minutes) 	Moderator: Ranjana Shrestha, NDRRMA
10:15 - 10:30 AM	Tea break	
Breakout session on Flood Risks : Room 1		
10:30 - 1:00 PM	Municipal experiences on AA by Nirmala Chaudhary, DRR focal person, Tikapur Municipality (10 mins) Community led anticipatory actions in Mahakali River Basin by Ganesh Thagunna, DCA/NNSWA (10 mins) Lessons from Forecast based Action mechanism, Mercy Corp (10 mins) Community centric EWS in lower Karnali basin by Dharam Uprety, Practical Action (10 mins) Panel discussion: (60 mins) Open floor discussions: (30 mins) Closing: Summary and way forward by Madhab Uprety, Climate Center (10 minutes)	Moderator: Niru Pradhan, DRC Panellists: <ul style="list-style-type: none"> ■ Rajendra Sharma, NDRRMA, ■ Dr. Archana Shrestha, DHM ■ Mandira Shrestha, ICIMOD ■ Kishor Limbu, Mayor, DodharaChadani Municipality ■ Hari Karki, UNFPA ■ MoHA/NEOC ■ Prem Awasti, UNRCO Panel moderator: Dinesh Gurung, DCA
Break out session Health Related Hazards: Room 2		
10:30 - 1:00 PM	Presentation: Status of health hazard in Nepal by Dr. Pawan Kumar Shah, Ministry of Health and population (20 mins) Presentation: International experience of working on AA on Dengue by Saju, Bangladesh Red Cross Society (20 mins) Group discussion: Policy, Operations and Resources (60 mins) Presentation and discussion (30 mins) Closing: Summary and way forward (10 mins)	Moderator: Umesh Dhakhal and Rudra Adhikari, NRCS
1:00 PM - 2:00 PM	Lunch break	

Time	Agenda	Responsible
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Break out session Landslide Risk: Room 1

<p>2:00 PM - 4:30 PM</p>	<p>Sharing of Landslide Susceptibility Mapping from Sajag Nepal by Gopi Bashyal, (5 mins)</p> <p>Tools for landslide early warning by Dr. Basanta Adhikari, IHRR (5 mins)</p> <p>Experiences from Impact Based Forecasting for Landslides by Shanti Kandel, DHM (15 mins)</p> <p>Municipal experiences on AA by Ganga Sagar Paudel, DRR focal person, Bhote Koshi (10 mins)</p> <p>Panel discussion: (60 mins)</p> <p>Open floor discussion: (30 mins)</p> <p>Closing: Summary and way forward by Rajendra Sharma, NDRRMA (10 mins)</p>	<p>Moderator: Sanchita Neupane, PIN</p> <p>Panellists:</p> <ul style="list-style-type: none"> ■ Dichen Sherpa, Deputy Chairperson, Bhote Koshi ■ Dr. Meghraj Dhital, TU ■ Shanti Kandel, DHM ■ Rajendra Sharma, NDRRMA ■ Sunita Bhattarai, Mines & Geology Department <p>Panel moderator: Dinanath Bhandari, DRR Expert</p>
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Break out session Heat wave and Cold wave: Room 2

<p>2:00 PM - 4:30 PM</p>	<p>Presentation: Experience of acting in anticipation of coldwave in 2022 by Suraj Shrestha, Care Nepal (10 mins)</p> <p>Presentation: Early Action Protocol for coldwave in Banke district by , Save the Children (10 mins)</p> <p>Presentation: Challenges and opportunities for coldwave in Nepal, Sabin Adhikari, PIN (10 mins)</p> <p>Group discussion: Coldwave bulletin, Identifying early actions for coldwave, Key barriers of acting in anticipation in Cold wave, (30 mins)</p> <p>Summary and way forward for Cold wave (10 mins)</p> <p>Presentation: Experiences, opportunities and challenges on heatwave by Dolakh Dangi and Prakash, Nepal Red Cross Society (10 mins)</p> <p>Group discussion: (30 mins)</p> <p>Summary and way forward for Heat wave (10 mins)</p> <p>Status of cold wave and heat wave forecasting and EWS in Nepal by DHM (10 mins)</p>	<p>Moderator: Niroj Sapkota, START Fund Nepal and Dharam Uprety, Practical Action and Madbha Uprety, Climate Center</p>
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<p>5:00 onwards</p>	<p>Dinner</p>
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Time	Agenda	Responsible
Day 2 8:00 - 9:00 AM	Breakfast	
9:00 - 10:30 AM	<p>Effective Risk Communication for Anticipatory Action Audio Emergency Notification System, Rajendra Sharma, Sr. Div. Hydrologist, NDRRMA and Real Time Solutions (15 mins)</p> <p>Designing communication for Persons With Disabilities, Ms. Reena Chaudhary, GEDSI Focal Person, NDRRMA (10 mins)</p> <p>Collaborative action for EWS with NDRRMA and DHM, Rudra Adhikari, NRCS (10 mins)</p> <p>Open floor discussions (25 mins)</p>	Session moderator: Mr. Dhruva Khadka, Under Secretary, NDRRMA
10:30- 10:45 AM	Tea break	
10:45 - 12:00 PM	<p>National Information Systems for Anticipatory Action Bipad Portal for Risk, Hazard, Exposure, Vulnerability Information and Dashboard for IBF –Pradip Khatiwada (10 mins)</p> <p>Volunteer Management System, Dhruva Khadka, Under Secretary, NDRRMA and Umesh Dhakal, NRCS (10 mins)</p> <p>Resource Management System -Godam - Arun Paudel, IT Specialist, NDRRMA (10 mins)</p> <p>Open floor discussions (30 minutes)</p>	Session moderator: Ms. Heera Devi Paudel. Under Secretary, NDRRMA
12:00 - 1:00 PM	Lunch	
1:00 - 2:30 PM	<p>Humanitarian and development actors together for shock responsive social protection program in Nepal</p> <p>Presentation on experience of leveraging SSA in Janaki Rural Municipality by Netra Prasad Jaisi, DRR focal person (7.5 minutes)</p> <p>Presentation on experience of SRSP in Rapti Sonari by Tara Bhusal, SDC (7.5 minutes)</p> <p>Presentation on SRSP Guideline by NDRRMA (7.5 minutes)</p> <p>Panel discussion: (40 mins)</p> <p>Open floor discussion: (15 mins)</p> <p>Closing: Summary and way forward (5 mins)</p>	<p>Moderator: Hemanta Dangal, Save the Children</p> <p>Panellist:</p> <ul style="list-style-type: none"> ■ Dhurba Khadka,, NDRRMA ■ Jasmine Rajbhandary, World Bank ■ Thakur Dhakal, UNICEF ■ Tilottam Paudel, Social Protection Civil Society Network ■ Dinesh Gurung, Dan Church Aid
2:30-2:45	Tea break	

Time	Agenda	Responsible
2:45 - 4:15 PM	<p>Disaster Risk Financing</p> <p>Presentation on Disaster Risk Financing - provision, opportunities and challenges by Yogesh Parajuli, DRF Focal, NDRRMA (10 mins)</p> <p>Presentation on Risk Transfer mechanisms - provisions, opportunities and challenges by Rajendra Maharjan Deputy Director, Nepal Insurance Authority (10 mins)</p> <p>Video screening on voices of local governments (10 mins)</p> <p>Panel discussion (30 mins)</p> <p>Open floor discussion (20 mins)</p> <p>Closing: Summary and way forward (10 mins)</p>	<p>Moderator:</p> <ul style="list-style-type: none"> ■ Nilima Raut, Private Sector Engagement Consultant, UNICEF <p>Panellists</p> <ul style="list-style-type: none"> ■ Dr. Gangalal Tuladhar, National Council for Disaster Risk Reduction and Management ■ Rajendra Maharjan Deputy Director, Nepal Insurance Authority ■ Chunky Chettri, Chairperson, Non-Life Insurance Association ■ Piush Kayastha, ECHO ■ Nirmala Chaudhary, DRR focal person, Tikapur Municipality
4:15 - 5:00 PM	<p>Closing session: Future of AA in Nepal,</p> <ul style="list-style-type: none"> ■ Vera Exnerova, AIN/TGDM focal person, PIN Country Director (video play) (4 minutes) ■ David Fogden, Country Manager, IFRC/Danish Red Cross ■ Jari Laukka, Counsellor Development cooperation, Finnish Embassy ■ Prem Awasti, Humanitarian Coordinator Officer, UNRCO ■ Umesh Dhakal, Executive Director, NRCS ■ Anil Pokharel, CEO, NDRRMA 	
5:00 PM onwards	Hi-tea	



Government of Nepal
Ministry of Home Affairs
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