21 May 2025 |Hotel Himalaya

1. Background

Nepal's geographical diversity and climate variability significantly impact various sectors, including agriculture, water resources, and disaster risk management. Acknowledging the susceptibility of these sectors to climate variabilities and extremes, the Climate Adaptation and Resilience (CARE) for South Asia and Strengthening Last Mile Communication projects emphasize the importance of managing climate-induced natural hazards. Climate change exacerbates the frequency and intensity of the disasters caused by these hazards, putting communities, infrastructures, and ecosystems at risk.

Nepal is very vulnerable to natural disasters, which are getting worse and less predictable because of climate change. Monsoon in Nepal is a significant and defining climatic phenomenon that greatly influences the country's weather patterns and socio-economic activities. About 80% of Nepal’s yearly rainfall occurs during the monsoon season from June to September.

The onset of monsoon rains is generally observed in the eastern and southeastern regions of the country before progressing towards the central and western regions. Monsoon rains bring heavy precipitation to Nepal, with most of the annual rainfall occurring during this season. The monsoon is characterized by intense, continuous rainfall, often leading to flooding, landslides, and other water- induced hazards. While the monsoon is critical for agriculture, excessive rain can lead to waterlogging, crop damage, and increased vulnerability to pests and diseases. Landslides pose a threat to infrastructure, transportation, and communities residing in hilly and mountainous areas. This rain is important for growing crops, but it can also lead to landslides and flash floods that cause significant damage in valleys and the low Terai plains.

As part of Component 1 of the CARE project, the Department of Hydrology and Meteorology (DHM), with support from the Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES), is organizing the Climate Application Forum in Nepal to proactively address climate-related challenges. This forum serves as a robust mechanism for climate preparedness, encompassing all relevant timescales of climate information to inform sectoral plans and decisions. The Climate Application Forum in Nepal is essential for fostering collaboration, sharing knowledge, and developing practical solutions that enhance the country's resilience to the impacts of climate change. The forum is designed to create a space for proactive discussions and actions to mitigate the impact of climate-induced disasters and foster preparedness at various levels.

The Climate Application Forum is a platform for preparedness planning, in view of the 2024 monsoon. While it takes forward seasonal preparedness, it is based on all relevant timescales of climate information for guiding sectoral plans and decisions. The Climate Application Forum brings together the Department of Hydrology and Meteorology (DHM) and key sectoral institutions in the country from the national to the local level, for dialogue vis-à-vis the generation and application of user-driven multi-timescale climate information.

Through an iterative process that is built on climate variability and change, for facilitating sustainability, the Climate Application Forum 2025 is targeted to provide opportunities for sectoral stakeholders to seasonally review their climate risk-informed, anticipatory preparedness plans and implementation thereof, and how these could be improved in subsequent season(s); and for DHM to constantly

evolve/tailor climate information to suit user requirements. Experiences and learnings, from informed seasonal and sub-seasonal preparedness planning and decision-making, are expected to build capacities, in due course, for effective long-term adaptation and resilience.

2. About CARE for South Asia

The Climate Adaptation and Resilience (CARE) for South Asia Project, supported by the World Bank, aims to build regional resilience to climate change. It focuses on improving regional data and knowledge availability, developing guidelines, tools, and capacities, and promoting climate-resilient decisions, policies, and investments across key sectors in beneficiary countries. The project is implemented by the Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES) and the Asian Disaster Preparedness Center (ADPC). RIMES implements Component 1, which focuses on promoting evidence-based climate-smart decision-making. This component includes three sub-components: establishing Regional Resilience Data and Analytics Services (RDAS) for the South Asia Region (SAR), strengthening Decision Support Systems (DSSs) for Bangladesh, Nepal, and Pakistan, and capacity building of users of the systems and their products for climate-informing plans and decisions.

Component 1 involves the development of a regional Resilience Data and Analytics Services (RDAS) for the region, and decision-support systems (DSSs) for selected sectors of agriculture, water, transport, planning, and disaster risk management in Bangladesh, Nepal, and Pakistan. Component 1 also includes capacity development of users of these systems and their products, and supports the South Asia Hydromet Forum (SAHF), for a holistic approach at user-centric generation and application of climate information in plans and decisions.

3. Objectives

The key objectives of the Climate Application Forum are to:

- Assess the performance of DHM's climate information products across various timescales, focusing on the previous seasons (2024 monsoon).
- Review users' experiences in applying climate information in plans and decisions, good practices and lessons learnt, and obtain recommendations for enhancing both climate generation and application;

- Present DHM's forecast products (including enhancements based on previous recommendations) for the subsequent season;
- Guide users in putting in place/evolving anticipatory preparedness measures based on DHM- generated forecasts/climate information and available DSS products.

4. Expected Outcomes

The Climate Application Forum targets the following:

- good practices and/or lessons, from experiences in applying climate information of various timescales, shared with relevant stakeholders, to provide insights on beneficial practices that can be replicated and/or inform enhancements in strategies/mechanisms for climate-informed resources and risks management
- Climate-informed action plans, for the upcoming winter, are prepared/proposed by key stakeholders, for potential uptake by their respective institutions when they report back to their stations
- stakeholders are better sensitized of the seamless use of climate information for short, medium, and long-term preparedness
- Recommendations to enhance climate information products and guide the full development of the DSSs are articulated by stakeholders

5. Agenda

Time	Program	Presenter
11:00-11:15	Opening Ceremony (Seating of Dignitaries and National Anthem)	
11:15-11:20	Welcome Remarks by the Deputy Director General	Dr. Archana Shrestha, Deputy Director General, Department of Hydrology and Meteorology
11:20-11:30	Review of previous monsoon and winter outlook	Mr. Sudarshan Humagain, Meteorologist, Department of Hydrology and Meteorology
11:30-11:40	Seasonal Outlook for Monsoon	Ms. Bibhuti Pokharel, Senior Divisional Meteorologist, Department of Hydrology and Meteorology
11:40-11:50	Experience of seasonal outlook application in Monsoon 2024 and use of Seasonal Outlook in Agriculture Sector	Nepal Agricultural Research Council
11:50-12:00	Experience of seasonal outlook application in Monsoon 2024 and use of Seasonal Outlook in DRR	National Disaster Risk Reduction and Management Authority (NDRRMA)/Ministry of Home Affairs
12:00-12:10	Experience of seasonal outlook application in Monsoon 2025 and Sectorial Preparedness Plans for the 2025 Monsoon Season	Department of Health Services
12:10-12:05	Remarks	NEA, DG
12:05-12:10	Remarks	DOR, DG

12:10-12:15	Remarks	Mr. ……., Executive Chief, National Disaster Risk Reduction and Management Authority
12:15-12:20	Remarks	Mr. ……., Secretary, Ministry of Health and Population
12:20-12:25	Remarks	Mr. ……., Secretary, Ministry of Agriculture and Livestock Development
12:25-12:30	Remarks	Mr. ……., Secretary, Ministry of Energy, Water Resources and Irrigation
12:30-12:35	Remarks	Mr. ……., Secretary, Ministry of Energy, Water Resources and Irrigation
12:35-12:40	Remarks	Honorable Minister Mr. Deepak Khadka, Ministry of Energy, Water Resources and Irrigation
12:40-12:45	Vote of Thanks and Closing	Director General, Department of Hydrology and Meteorology
Lunch 12:45 - 13:45		

List of Participants (tentative) (DHM will send the invitations and confirm the participation: around 220)

S.N.	Organizations/Institutions	No. of invitees	Remarks
1	DHM		
2	Ministry of Energy, Water Resource and Irrigation		
3	Ministry of Home Affairs (National Emergency Operation Center)		
4	NDRRMA		
5	Ministry of Agriculture and Livestock Development		
6	Departments – agriculture; transport/roads; local infrastructure; mines and geology; Aviation		
7	NARC		Research
8	Ministry of Forest and Environment		
9	Ministry of Health and Population (Health Emergency Operation Center)		
10	Ministry of Local Development (MOLD)		

11	Ministry of Federal Affairs and General Administration (MOFAGA)		
12	Nepal Academy of Science and Technology (NAST)		Research
13	Tribhuvan University – hydro-met department; environment department; geology department; sociology		Academia
14	Security forces – APF; Nepal Army, Nepal Police		
15	Institute of Engineering – disaster department; hydro-water resource department		Academia
16	Federation of Nepalese Chambers of Commerce and Industry (FNCCI)		Private Sector
17	Media – Ratriya Samachar Samiti (National News Committee);		Media
18	Municipal Association of Nepal (MUAN)		Local Govt
19	Rural Municipal Association of Nepal		Local Govt
20	Association of International NGOs – Task Group Disaster Management and Climate Change (AIN-TGDM)		

21	Disaster Preparedness Network (DPNet)		
22	Humanitarian Organisations		
23	Disaster Preparedness Network (DPNet)		