#HKH2Glasgow
ROAD TO UNFCCC COP26

COP26 SATELLITE EVENT

Resilience from Source to Sea in South Asia

6 November 2021, Saturday | 11:45 – 13:00 UK GMT
Nature-based Solutions Day, Resilience Hub, COP26, UK

About the event

The event showcases resilience interventions being delivered from 'Source to Sea' in South Asia with an emphasis on scaling up practical solutions and bringing in civil society and community voices to show that local adaptation works and can be scaled. It will be anchored in the Resilience Hub at COP26 and will be a virtual event 'stopping in' at various points from the high mountains to the plains and sea – and highlighting how climate finance is being used to build resilience and support community adaptation.

Objective

The event aims to call for COP26 to agree to increased investment in local level solutions and ensure support reaches the most vulnerable.

Agenda

	Time (UK Time)	Programme	Presenter
	11:45	Welcome and objectives	**Saleem Ul Huq**, International Centre for Climate Change and Development (ICCCAD)
MOUNTAINS			
1	11:50	Ice stupas	**Sonam Wangchuk**, Founding Director, Students' Educational and Cultural Movement of Ladakh (SECMOL) (Virtual)
2	11:55	Glacial Lake outburst flood risk management	**Arun B Shrestha**, Senior Climate Change Specialist, ICIMOD (Recorded presentation)
HILLS			
3	12:00	Springshed management in the HKH	**Sanjeev Bhuchar**, Senior Water Management specialist, ICIMOD (Virtual)
4	12:05	NCCSP – iLAPA implementation	**Radha Wagle**, Joint Secretary, Chief, Climate Change Management Division, Ministry of Forests and Environment (MoFE), Nepal (In person)
5	12:10	Climate smart agriculture	**Madan Pariyar**, Senior Advisor, International Development Enterprises (iDE) (In person)

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PLAINS			
6	12:15	Coping with water stress and flooding	**Daljeet Kaur**, Climate and Environment Advisor, Foreign and Commonwealth Development Office (FCDO) **Dilip Singh**, National Project Manager, UNDP India **Johnson Topno**, Regional Head of Programme, Phia Foundation (Recorded video)
7	12:22	Urban flood management – Kolkata	**Okju Jeong**, Urban Climate Resilience Specialist (Consultant), Climate Change Resilience Trust Fund (UCCRTF), Asian Development Bank **Bonapart Masangcay**, GIS Focal & Administrator, SPADE, Asian Development Bank (Virtual)
8	12:27	Floating vegetables in floodplain	**Haseeb Irfanullah**, Independent Consultant - Environment, Climate Change, and Research System (Virtual)
9	12:30	Loss and damage responses – to cyclone Amphan	**Istiakh Ahmed**, Programme Coordinator, ICCCAD **Rafiqul Islam Montu**, Freelance journalist (Virtual)
COASTS			
10	12:34	Rainwater harvesting in coastal zone	**Mohammad Mahmodul Hasan**, Coordinator, Climate Change Program, Christian Commission for Development in Bangladesh (CCDB) (Virtual)
	12:37	Panel discussion with resilience experts at COP26 and in the Region	Moderator: **Saleem Ul Huq**, Director, ICCCAD Panellists: **Pema Gyamtsho**, ICIMOD **Madan Pariyar**, iDE **Radha Wagle**, MoFE Nepal **B Rajeshwari**, MGNREGA Commissioner, Jharkhand **Johnson Topno**, Phia Foundation **Sonam Wangchuk**, SECMOL
11	12.55	Closing Remarks	**Anne Marie Trevelyan**, COP26 Resilience Champion (Pre-recorded)

Description of Solutions and Presenters

Name of the project/case study: **Ice Stupa**

Location: **Ladakh, India**

Agency: **Students' Educational and Cultural Movement of Ladakh (SECMOL)**

Name of presenter: **Sonam Wangchuk**

Description of presenter:

Sonam Wangchuk is an Indian engineer, innovator, education reformist, and founding-director of the Students' Educational and Cultural Movement of Ladakh (SECMOL). He is known for designing the SECMOL campus that runs on solar energy and uses no fossil fuels for cooking, lighting or heating and is the inventor of the Ice Stupa – artificial glaciers for storing winter water in the form of a conical ice heap.

Description of the project:

The Ice Stupa is a form of glacier grafting technique that creates artificial glaciers, used for storing winter water in the form of conical "mini glaciers". During summer, when water is scarce, the Ice Stupa melts to increase water supply for crops. Launched in October 2013, the test project started in January 2014 and on 15 November 2016, Sonam Wangchuk was awarded the Rolex Awards for Enterprise for his work on the Ice Stupa.

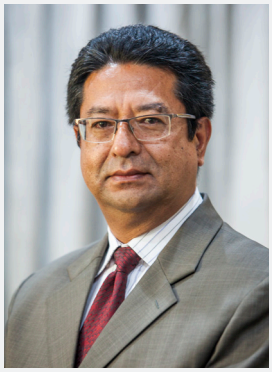
Name of the project/case study:
Glacial Lake outburst flood risk management

Location: **Nepal**

Agency: **ICIMOD**

Name of presenter: **Arun B. Shrestha**

Description of presenter:



Arun Bhakta Shrestha is a Senior Climate Change Specialist and Programme Manager for River Basins and Cryosphere regional programme at ICIMOD. His main areas of expertise include climate change, glaciers and glacial hazards, glacial lake risk mitigation, atmospheric environment, and hydrological modelling. He is one of the editors of the *Hindu Kush Himalaya Assessment*[1] and one of the Coordinating Lead Author of the chapter on climate change[2] in the Assessment.

Description of the project:

Rapid shrinkage of glaciers, formation and growth of glacial lakes and outbursts is a matter of serious concern. There are more than 25,000 glacial lakes in the HKH of which about 200 are categorized as potentially dangerous glacial lakes (PDGL). GLOF risk management for high priority PDGLs include risk mitigation measures such as lake level lowering, establishing early warning systems, and structural and nature-based downstream protection measures.

Name of the project/case study:
Spring Shed Management

Location: **Regional**

Agency: **ICIMOD**

Name of presenter: **Sanjeev Bhuchar**

Description of presenter:

Sanjeev Bhuchar is a Senior Watershed Management Expert at ICIMOD. He has about 25 years of experience in sustainable watershed management, mostly in the Hindu Kush Himalaya. He is an active member of the World Overview of Conservation Approaches and Technologies (WOCAT) network and holds a PhD in Botany (Ecology) from Kumaun University, India.

Description of the project/case study:

Springs are the primary source of water for millions of people in the hills and mountains, and the lifeblood of many ecosystems in the Hindu Kush Himalaya (HKH). There is increasing evidence that springs in the HKH are drying or their discharge is decreasing. Considering the multiple socioecological benefits of springs, hydrogeology based springshed management deserves to be supported as a nature-based solution for climate change adaptation and resilience building in the HKH.

Millions of people in the mid-hills of the HKH depend on springs. When springs dry, women and children, who are often tasked with fetching water, are greatly impacted.

Name of the project/case study:
NCCSP – iLAPA implementation

Location: **Nepal**

Agency: **Ministry of Forests and Environment, Nepal**

Name of presenter: **Radha Wagle**

Description of presenter:

Radha Wagle is the Joint Secretary - Chief of Climate Change Management Division (CCMD) and the UNFCCC Focal Point for Nepal since September 2020. She completed her PhD from Monash Clayton University in Forestry, Gender and Environment. A strong gender advocate, she is the first women Joint Secretary at CCMD and first women UNFCCC focal point. She completed her masters from SLU - Swedish University of Agricultural Science. Prior to joining the MoFE, she was the Secretary at the Ministry of Industry, Tourism, Forest and Environment.

Description of the project:

NCCSP2 aims to address four major climate risks for Nepal: climate risks to infrastructure (resilience, loss and damage); quality and quantity of water; agricultural yield and food security; and biodiversity and natural resources. The outcomes are particularly focused on the poorest in society, especially women. In due course, the programme will be scaled up to impact close to 900,000 climate-vulnerable people. Climate resilience engineering interventions are targeted on irrigation, agriculture, forestry and drinking water schemes. We support municipalities to mainstream climate change adaptation and resilience within their local development plans, known as Local Adaptation Plans of Action (LAPAs), working through government planning and financing systems. Linking the LAPA framework to their regular local seven-step development planning, municipalities identified 172 climate resilient activities to be implemented by them. In its technical assistance role, Mott MacDonald facilitated this process and at the onset of COVID-19, in collaboration with the government and UK aid, fast-tracked 19 schemes that were directly related to the pandemic response and recovery.

Name of the project/case study:
Climate smart agriculture

Location: **Nepal**

Agency: **iDE Nepal**

Name of presenter: **Madan Pariyar**

Description of presenter:

A recognized expert on building resilience in the face of disaster, Madan Pariyar has made notable contributions to research and has worked in both government and non-governmental organizations, private industry, and academia. As a member of Nepal's marginalized Dalit community, he has been a fierce advocate for their inclusion in all levels of society. In 2011, he was appointed as the Chairman of the State Restructuring Commission (SRC) to advise the Constitutional Assembly on the best possible model of federalism and federal structure to be adopted for the Federal Democratic Republic of Nepal. From 2010 onwards, he led the programme development as well as monitoring and evaluation (M&E) activities for iDE's Nepal programmes. He obtained his Doctorate and Masters in Engineering from the Asian Institute of Technology in Bangkok, Thailand.

Description of the case study:

The Anukulan public private partnership facilitated (i) supply chains for climate smart agricultural technologies, and (ii) last mile resilient market ecosystems that worked closely with local government and communities for supporting investments through adaptation planning.

Photo of Kalash Rawal with the caption: The UKAID BRACED programme supported the Anukulan project that facilitated a Multiple Use Water System and last mile supply chains for climate smart agriculture that enabled Kalasha Rawal to increase her family income during a drought in 2016, enabled her husband to return from employment outside the country, and helped them raise their daughter.

Name of the project/case study:
Coping with water stress and flooding

Location: **Bihar / Orissa**

Agency: **ICRG/NREGA**

Name of presenter:
Daljeet Kaur, Dilip Singh, Johnson Topno

Description of presenter:

Daljeet is the Climate and Environment Advisor with Foreign Commonwealth and Development Office (FCDO) in India. She leads FCDO's Technical Assistance programme – Infrastructure for Climate Resilient Growth (ICRG) that aims to improve abilities of poor and vulnerable people to cope with climate change impacts by integrating climate risk management into Government of India's (GoI) social protection programmes.

Dilip Singh has over two decades of experience in the development sector spanning energy and environment domains. With base in Delhi he has worked extensively across India and also contributed to multi-country, project-specific outputs in South- and Southeast Asian countries.

Johnson Topno is the Regional Head of Programme for Phia Foundation and holds an MBA in Rural Development from Xavier Institute of Social Service (XISS) Ranchi, Jharkhand with more than 21 years of experience in the development sector, engaged in a wide spectrum of conceptual programme design and management in leadership positions.

Name of project:
Case Study from FCDO's TA programme Infrastructure for Climate Resilient Growth (ICRG), highlighting interventions that help vulnerable communities cope with water scarcity (drought) and flooding

Location: **Bihar (Flood) and Odisha (Water Management/Drought)**

Agency: **Implementing partners – UNDP**

Name of presenter: **Daljeet Kaur**

Description:

Odisha: Downscaling of climate information to plan future fit NRM works built under MGNREGS (India's social protections scheme) such as check-dams, dug-wells, gully plugs along with creating livelihood models through convergence of MGNREGS with development programmes and facilitating additional income generation activities with Self Help Groups (SHGs), the vulnerable households are supported to cope with the droughts and prolonged dry season.

Bihar: Supported development and rejuvenation of traditional water networks - Ahar pynes in Bihar to provide flood relief to the affected communities that also resulted in increased water availability for agriculture during post monsoon season. The pynes/ water network were developed using climate resilient engineering designs based on climate models.

Name of the project/case study:
Kolkata Flood Forecasting and Early Warning System (FFEWS)

Location: **Kolkata, India**

Agency: **ADB, USG- UCCRTF**

Name of presenters: **Bonapart Masangcay** and **Okju Jeong**

Bonapart Masangcay is a Geodetic Engineer with strong technical background in Surveying, Remote Sensing, Photogrammetry, GIS Analysis and Data analytics. Bon is currently the GIS focal and administrator and SPADE, a web-based GIS tool within the Asian Development Bank. SPADE is a web-based GIS tool which can be used for project planning, safeguards, remote monitoring, to name a few.

Okju Jeong works with the UCCRTF Secretariat and coordinates UCCRTF country portfolios of India, Nepal, Pakistan, and Myanmar, as well as multiple technical assistance projects. She is an urban climate resilience specialist and studied geography and regional planning for her doctorate from Paris-IV-Sorbonne University.

Description:

Kolkata Municipal Corporation (KMC) has developed a comprehensive city-level flood forecasting and early warning system in operation since 2018 for the first time in India.

https://www.adb.org/publications/toward-resilient-kolkata and
https://www.adb.org/projects/42266-025/main

Name of the project/case study:
Floating vegetables in floodplain

Location:

Agency: **IUCN (ICCAD)**

Name of presenter: **Haseeb Irfanullah**

Description of the presenter:

Haseeb Irfanullah is a biologist-turned-development facilitator who has worked for different international environment and development organizations, academic institutions, donors, and the Government of Bangladesh in different capacities. He is also involved with the University of Liberal Arts Bangladesh (ULAB) as a visiting research fellow of its Center for Sustainable Development (CSD) in Dhaka. Haseeb has a PhD in aquatic ecology from the University of Liverpool, UK. He has been working with International Centre for Climate Change and Development (ICCCAD), Bangladesh and the University of Oxford, UK to create knowledge and evidence base and practitioner community on NbS for Bangladesh.

Description of project:

Floating agriculture is a traditional practice and considered a principal means of livelihood with strong market linkages in various parts of Bangladesh. Women are usually involved but over the years, the tradition has evolved. As it has proven to be effective, the practice was replicated by the pro-poor and climate resilient model NGOs. Based on pilot success two big projects have scaled up the practice in 48 upazilas out of 500

Name of the project/case study:
Loss and damage responses to cyclone Amphan

Location: **Bangladesh**

Agency: **ICCAD**

Name of presenter: **Istiakh Ahmed, Rafiqul Islam Montu**

Description of presenter:

Rafiqul Islam Montu is an award winning Bangladeshi freelance journalist and a pioneer in coastal journalism. He has been in the profession for over 30 years and his stories have been published in various leading national and international media and news portals. Along with the WeNaturalists International Award 2021, he has received 20 national and international awards in recognition of his work. He has also received fellowships from the Internews/ Earth Journalism Network and the Center for Sustainable Development. He has authored two books – Cyclone Sidr and Char Livelihoods and Human Rights.

Istiakh Ahmed is a Programme Coordinator' at ICCCAD and currently leads four different projects. He completed his BSS and MSS in Anthropology from Jahangirnagar University and has been working on climate change for the last 7 years. He attended the Resilience Academy (2015-2016) and was a fellow of the USAID Young Researcher Programme.

Description of project:

Super Cyclone Amphan which hit West Bengal and Bangladesh in May 2020 was fueled by sea surface temperatures 2 degrees above normal. Such super cyclones have records of killing tens of thousands of people. Bangladesh has put in place one of the best cyclone warning and evacuation systems in the world resulting in a significant decrease in the number of deaths. However, a year after Amphan, thousands of people were still unable to return to their homes and/or had their agriculture land salinized by sea water. The cyclone warning and evacuation system can reduce mortality but it still cannot prevent loss of lives and livelihoods of the people – a stark example of loss and damage from human induced climate change.

Name of the project/case study:
Rainwater harvesting in coastal zone

Location: **Bangladesh**

Agency: **BRAC/CCDB**

Name of presenter: **Mohammad Mahmodul Hasan**

Description of presenter:

Mohammad Mahmodul Hasan has been working in Christian Commission for Development in Bangladesh (CCDB) since March 2019 as Coordinator of the Climate Change Programme. He has previously worked at Grameen Shakti, Bangladesh, and at Aalto Universit, Finland. Hasan is a certified KIC InnoEnergy Graduate from the European Institute of Innovation and Technology (EIT) through the Erasmus Mundus Program at Royal Institute of Technology (KTH) in Sweden and Aalto University in Finland. He has previously participated as an observer and panellist at several COPs, in the 1st UN Asia-Pacific Ministerial Summit on the Environment in 2017, and the 5th Asia-Pacific Forum on Sustainable Development in 2018 at UNESCAP in Bangkok.

Description of project:

The south coastal belt of Bangladesh is facing increasing salinity both in land and water. Shortage of drinking water is a major crisis in this region. Women have to travel several kilometres to collect drinking water for the household. CCDB has been working with local communities, particularly women, to set up rainwater harvesting systems in houses that can store water during rainy season for use in the dry season. Additionally, they also provide training on how to store rainwater in these tanks.

CCDB also has a technology park with a dedicated unit for rainwater harvesting where they continuously work to make these technologies better suited for the needs of the community.

Panel discussion:
Resilience experts at COP and in the Region

Moderator: **Saleem Ul Huq, Pema Gyamtsho**

Panellists:

Pema Gyamtsho, ICIMOD
Madan Pariyar, iDE
Radha Wagle, MoFE Nepal
B Rajeshwari, MGNREGA Commissioner, Jharkhand
Johnson Topno, State Lead Jharkhand, Phia Foundation
Sonam Wangchuk, SECMOL, Ladakh

Description of panelists:

Saleemul Huq is the Director of the International Centre for Climate Change & Development (ICCCAD) based in Bangladesh, also Professor at Independent University, Bangladesh (IUB). He is an expert in the field of climate adaptation and has worked extensively in the inter-linkages between climate change and sustainable development, from the perspective of developing countries, particularly in the least developed countries (LDCs). He was a lead author of the IPCCS chapters on Adaptation and Sustainable Development and 'Inter-relationships between adaptation and mitigation'.

Pema Gyamtsho, Director General, ICIMOWD has recently taken over at ICIMOD after being the First Minister of Agriculture and Forest in the Democratic Government of Bhutan and a key negotiator in the Bhutan COP team. He is well respected in the region and has good relationships with key climate change advisers and thought leaders in the eight HKH countries including India and China.

For further information

Simon Lucas simon.lucas@fcdo.gov.uk
Melissa Pradhan melissa.pradhan@fcdo.gov.uk
Udayan Mishra udayan.mishra@icimod.org

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International Centre for Integrated Mountain Development
T +977 1 5275222 | **E** info@icimod.org | **www.icimod.org**