# Climate-resilient agriculture for sustainable food systems in the Hindu Kush Himalaya

# 1–3 October 2024 | ICIMOD Headquarters and Living Mountain Lab (LML), Godavari **About the conference**

The International Centre for Integrated Mountain Development (ICIMOD), in collaboration with the Government of Nepal and the Green Resilient Agricultural Productive Ecosystems (GRAPE) project, is organizing this conference to bring together multi-stakeholders from the Hindu Kush Himalaya (HKH) countries and beyond to foster cross-learning of best climate resilient practices, solutions, approaches, and policies for sustainability of mountain food systems, particularly in the HKH. It also seeks to advance knowledge on enabling environment climate resilient agricultural solutions (CRAS) and regional cooperation for wider adoption of these solutions to achieve sustainability in mountain food systems. Participants include researchers, experts from government and non-government sectors, practitioners, academicians, policymakers, and other stakeholders.

#### Objectives

- **Promote exchange of best practices:** Facilitate cross-sharing of the best climate-resilient practices and solutions to address the rising risks in mountain food systems.
- Address barriers and identify solutions: Deliberate solutions to address challenges and bottlenecks that disrupt the enabling environment for wider adoption of climate-resilient agricultural solutions in the HKH.
- **Enhance collaborative efforts:** Foster collaboration among governments, NGOs, researchers, and local communities to promote the widespread adoption of climate-resilient solutions and ensure long-term sustainability in mountain food systems.

### Background

Mountains cover 22% of our planet and accommodate over 1 billion people. Yet, 40% of mountain communities face food insecurity. In the HKH alone, one-third of the population is food insecure and nearly half suffer from malnutrition—severely impacting children and women.

The HKH is grappling with severe challenges in agriculture including macro issues such as climate change, loss of agrobiodiversity, labor shortage, low tech adoption, and high postharvest losses. Climatic changes - such as changes in temperature, erratic weather patterns, frequent floods, prolonged droughts, and shifting seasons - not only impact food production and income, but also exacerbate the existing social inequalities. Therefore, addressing these threats and impacts of climate change are among the most urgent challenges for ensuring the sustainability of our food systems and the resilience of agriculture. In response, ICIMOD held the international conference 'Enabling Resilient and Sustainable Food Systems in the Hindu Kush Himalaya' in 2023 which spotlighted the urgent need for resilient and sustainable food systems in the HKH and facilitated cross-learning to address both climatic and non-climatic risks in mountain food systems. This year's conference will build on this momentum, exploring innovative climate-resilient solutions, approaches for building climate resilience in the HKH, and strategies for widespread scaling and adoption.

#### Agenda

#### Day 1-01 October 2024

Registration: 9:00-9:30

Time (NPT)	Sessions	
9:30-10:30	Opening session	
	Host: Barsha Rani Gurung, Communications Officer, ICIMOD	
	Welcome Remarks	
	Formal inauguration by the Chief Guest: Honourable Minister, Ramnath Adhikari, Ministry of Agriculture and Livestock Development	
	<ul><li>Remarks</li><li>Welcome remarks by: Shekhar Ghimire, Director Administration, Finance</li></ul>	
	and Operations, ICIMOD	
	Address by: Shahiya Ali Manik, Director, SAARC Secretariat	
	• Remarks by: Benjamin Seidel, Deputy Head of Mission, Head of Cooperation and Economic Affairs, Embassy of the Federal Republic of Germany, Kathmandu	
	Launch of knowledge products	
	• Towards Climate Resilient Agriculture in Nepal: Solutions for Smallholder Farmers	
	<ul> <li>Community Learning Centres: For Climate Resilient Agriculture</li> <li>जलवायु परिवर्तन र जलवायु उत्थानशिल कृषिसम्बन्धी सुचना पत्र</li> </ul>	
	• Book of Abstracts: Participatory Action Research on Climate-Resilient Agriculture under GRAPE	
	Inaugural address by chief guest	
	Vote of thanks: Kamal Aryal, Project Coordinator, GRAPE FA 2, ICIMOD	
10:30-11:00	Tea/coffee and group photo	
11:00-12:30	P1: Mountain Food Systems in the Face of Climatic and Other Changes	
	<b>Session Host:</b> Abid Hussain, Action Area Coordinator, Adapting and transforming livelihoods and economies, ICIMOD	

	<b>Keynote:</b> Arabinda Mishra, Chairperson, Development and Environment Futures Trust, India	
	<ul><li>Panellists:</li><li>Jonathan Reeves, Senior Climate and Energy Adviser, British Embassy</li></ul>	
	<ul> <li>Farmers Welfare &amp; CEO Nation Ministry of Agriculture and Farr Authority , Govt of India (virtual)</li> <li>Rajendra Prasad Mishra, Secret</li> </ul>	onal Secretary, Ministry of Agriculture and al Rainfed Area Authority , Govt of India ners Welfare & CEO National Rainfed Area ary, Ministry of Agriculture and Livestock
	Development, Nepal	
	participation)	tor, Mountain Partnership, Italy (video
	Paulina Campos, Country Repres	
12:30-13:15	Marketplace (Poster Presentation arou	und 35)
	Resilient Agriculture Analyst, ICIMOD	h Associate and Rajendra Dhakal, Climate technologies and practices (findings from
	GRAPE action research)	
13:15-14:00	Lunch break	
14:00-15:30	TS1: Innovative Climate-Resilient and	Sustainable Agricultural Practices
	A: Technological innovations for building climate resilience in mountain agriculture	
	<b>Session Host:</b> Till Ludwig, Technical Advisor, GIZ <b>Session Hall:</b> Nanda Devi Hall	<b>Session Host:</b> Srijana Joshi Rijal, Ecosystem Specialist, ICIMOD <b>Session Hall:</b> Annapurna Hall
	<ul> <li>Panellists:</li> <li>Sunita Nhemaphuki, Co- founder and CEO, R&amp;D Solutions, Nepal</li> <li>Kalyan Gauli, Head of Climate Resilient Agriculture Development, GIZ, Nepal</li> <li>Muhammad Yaseen, Director General, Government of KPK, Pakistan</li> <li>SHEN Ting, Postdoctoral Fellow, Centre for Mountain Futures, China</li> </ul>	<ul> <li>Panellists:</li> <li>Chhimi Dorji, Director, Tarayana Foundation, Bhutan</li> <li>Anil Shrestha, Professor, California State University, USA</li> <li>Ram Krishna Shrestha, Joint Secretary, MoALD, Nepal</li> <li>Menila Kharel, Thematic Lead- Sustainable Agriculture and Markets, Practical Action Nepal</li> <li>Rommila Chandra, Assistant Professor, DOON University, India</li> </ul>

	<ul> <li>Prakash Tiwari, Professor, Kumaun University, India</li> <li>Geeta Pandey, Director, KIRDARC, Nepal</li> </ul>	
15:30-15:45	Tea/coffee break	
15:45-17:00	<ul> <li>P2: Productive use of Renewable Energy for resilience building in Mountain Agriculture</li> <li>Session Host: Avishek Malla, Energy Specialist, ICIMOD</li> <li>Keynote speaker: Laxman Prasad Ghimire, Deputy Director, Alternative Energy Promotion Centre, Nepal</li> <li>Launch of knowledge products: <ul> <li>Launch of Detailed Feasibility Study Framework</li> </ul> </li> </ul>	
	<ul> <li>Video screening on solar cold storage system solutions</li> <li>Moderated discussion: Mewang Gyeltshen, Senior Specialist Renewable Energy ICIMOD</li> <li>Panelists:         <ul> <li>Laxman Prasad Ghimire, Deputy Director, Alternative Energy Promotion Centre, Nepal</li> <li>Lenneke Braam, Country Program Director, SNV, Nepal</li> <li>PC Sharma, Joint Director, ISA, India</li> <li>Wang Peng, Professor, Guangzhou Institute of Energy Conversion, Chine Academy of Science.</li> </ul> </li> </ul>	
18:00-20:00	Reception Dinner: Hotel Himalaya, Kupondole Height, Lalitpur	

#### Day 2-02 October 2024

Time (NPT)	Sessions	
9:30-9:45	Recap of Day 1	
9:45-11:00	TS2: Green and inclusive agricultur	ral value chains and entrepreneurial
	ecosystems.	
	C: Enabling environment for green and inclusive agricultural Entrepreneurship	D: Engaging women, youth, and marginalized groups in mountain agri- businesses
	Session Host: Anu Joshi Shrestha, Rural Enterprise and Value Chain Specialist, ICIMOD Session Hall: Kailash Hall Panellists:	Session Host: Binija Nepal, Component Manager- Knowledge Dissemination and Upscaling, GIZ Session Hall: Annapurna Hall Panellists:

	<ul> <li>Ramji Prasad Neupane, Former National Programme Manager, Micro Enterprise Development Programme (MEDEP)</li> <li>Prativa Pandey, Founder, Herveda Botanicals and Catalyst Technology</li> <li>Dhan Bahadur Kathayat, Agriculture Extension Officer, MoLMAC, Karnali</li> <li>Madhuvanti Kale, Senior Manager, United Way of Hyderabad, India</li> <li>Niraj Khanal, Co-founder, Knowledge growth and sustainability Inc Pvt Ltd, Nepal</li> </ul>	<ul> <li>Sudha Khadka, Country Director RECOFTC, Nepal</li> <li>Shiba Satyal, Gender Equality and Social Inclusion Lead, ICIMOD</li> <li>Marycielo Valdez Sanchez, Alpaca fiber transformation and supply chain Manager, Threads for Dream</li> <li>Shakeb Nabi, Country Director, WHH</li> <li>Suman Ghimire, CEO and Founder, Seed innovation lab</li> <li>Hina Siddique Chaoudhary, Scientific Officer, Pakistan Agriculture Research Council(PARC)</li> </ul>
11:00-11:30	Tea Break	
11:30- 12:30	Storytelling for Resilient Food Systems         Moderator: Barsha Rani Gurung, Communications Officer, ICIMOD	
	Digital narratives for change: Inspiring	Nepal
12:30-13:30	Lunch break	
13:30-14:50	TS3: Climate smart mechanization a mountain food systems	and digital technologies for resilient
	E: Climate smart mechanization in mountain agriculture	F: Digital Solutions for Production and Marketing in Mountain Food Systems
	Session Host: Arun GC, Program Specialist, FAO Session Hall: Kailash Hall Panellists:	<ul> <li>Session Host: Aradhana Gurung, Co-Founder and CEO, Impact 447</li> <li>Session Hall: Nanda Devi Hall</li> <li>Panellists:</li> <li>YANG Xueqing, Professor, SAAS, China</li> <li>Tara Panthi Innovation and Naw</li> </ul>
	<ul> <li>MA Wei, Chief Scientist, CAAS, China</li> <li>Shiva Shrestha, Project Manager, UNDP-Nepal</li> <li>Shreemat Shrestha, Principal Scientist, NARC</li> </ul>	<ul> <li>Tara Panthi, Innovation and New Initiative Lead, Heifer, Nepal</li> <li>Rajan Bajracharya, Managing Director, Geo-Krishi, Nepal</li> <li>Abiral Pant, Business and Market Systems Director, USAID Feed the</li> </ul>

	<ul> <li>Shalu Adhikari, Climate Specialist, FAO</li> <li>Aamer Hayat, Co-Founder, Agriculture Republic, Pakistan</li> <li>Jeet Chand, Senior Agricultural Engineer, PMAMP, Nepal</li> </ul>	<ul> <li>Future Agriculture Inputs Activity, Nepal</li> <li>Sravan Shrestha, Senior Associate- Remote Sensing &amp; Geoinformation, ICIMOD</li> </ul>	
14:50-16:10		cing risks and building resilience in	
	mountain food systems		
	Session Host: Brij Mohan Rathore, Senio Panellists:	•	
	<ul> <li>Surendra Raj Joshi, HIREAP Coordinator, ICIMOD</li> <li>Nivedita Varshneya, Regional Advisor, Advocacy and Collaborations, WHH</li> </ul>		
	India		
	• Arjan De Haan, Senior Programme Sp		
	• Ganga Dutta Acharya, Senior Progra Bangladesh	m Specialist, SAARC Agriculture Centre,	
	6	a Coordinator, Managing Cryosphere and	
	• Yusuf Zafar, Former Chairman, PARC,	, Pakistan	
16:10-16:30	Tea Break		
16:30-17:30	Closing session		
	• Feedback – 2-3 participants	• • • • • • • • • • • • • • • • • • •	
	• Summary of the conference and way forward –Abid Hussain, Action Area		
	<ul> <li>Coordinator, Adapting and transforming livelihoods and economies, ICIMOD</li> <li>Remarks – Roshan Shrestha, Deputy Chief Technical Advisor and Component</li> </ul>		
	• <b>Kemarks</b> – Rosnan Shrestna, Deputy Manager, GRAPE, GIZ	Chief Technical Advisor and Component	
		Pokharel, Secretary, Ministry of Land	
	Management, Cooperatives and Pover		
	• Vote of thanks – Kamal Aryal, Project	•	

## Day 3-03-October 2024

Time (NPT)	Sessions	
9:30-10:00	Commute to Living Mountain Lab of ICIMOD	
10:00-11:00	Presentation on the Living Mountain Lab – Yufang Su, Head – LML, ICIMOD	
11:00-11:30	Tea Break	
11:30-1:30	LML Walk – guided by LML/ICIMOD team	
1:30-2:30	Lunch	
2:30-3:00	Return to Hotel	