

# The Second Inter-Polar Conference: Connecting the Arctic with the Third Pole HKH

ICIMOD  
Khumaltar, Lalitpur, Nepal,  
September 3-5, 2025

## *Cryosphere, People, and Climate Change*

**DAY 1: September 3, 2025**

### **Inaugural session:**

Venue: Kailash Hall

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| 09:00-09:15   | Registration  |
| 09:15-09:40   | Opening session<br><br>Moderator: Pradyumna Rana, ICIMOD<br><br>Dr. Pema Gyamtsho, ICIMOD (5 min)<br>Dr. Johanna Ikävalko, Arctic Centre (5 min)<br>Dr. Atsushi Sunami, OPRI (5 min)<br>Representative Gov of Nepal (5 min)   |
| 09:40 – 10:45 | <b>First Plenary session: <i>Knowledge to Actions</i></b><br><br>Moderator: <ul style="list-style-type: none"><li>• <i>Markku Heikkila, Head of Science Communication, Arctic Centre</i></li></ul> Rapporteur: Lapland<br><br>Keynote: <b>Dr. Anil Mishra/UNESCO</b> (10 min)<br>Panellists: <ol style="list-style-type: none"><li>1. Prof. <b>Gunnar Stefansson</b>, Vice-President, University of the Arctic (UArctic – a university without a wall) ONLINE</li><li>2. Prof. <b>Deepak Aryal</b>, VC TU (TBC)</li><li>3. Prof. <b>Bing Chen</b>, UArctic Chair, Memorial University, Canada (Emerging Environmental Challenges for Sustainable Communities in the Cold Regions: Research Progress in the Arctic and Opportunities for the Third Pole)</li><li>4. <b>Sonam Lhamo</b>, NCHM, Bhutan (TBC)</li></ol> |
| 10:45 – 11:15 | <b>Tea break &amp; Group picture</b>  |

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| 11:15– 12:30  | <p><b>Second plenary session <i>Community Resilience and Climate Actions</i></b></p> <p>Moderator: Neera Shrestha Pradhan<br/>Rapporteur: Finu Shrestha and Sunwi Maskey</p> <p>Keynotes<br/>Sara Alanen, Finnish Embassy, Nepal, Head of Development Cooperation</p> <p>Panellists:</p> <ol style="list-style-type: none"> <li>1. <b>Aisha Khan</b>, Founder of the Civil Society Coalition for Climate Change (CSCCC) and CEO of the Mountain and Glacier Protection Organization (MGPO)</li> <li>2. <b>Gianluca Frinchillucci</b> (Il Polo), Il polo, Italy (Cultural Heritage and Community Resilience between the Arctic and the Third Pole)</li> <li>3. <b>Yangji Doma Sherpa</b>, General Manager, Sagarmatha Pollution Control Committee (SPCC), Nepal</li> <li>4. <b>Ranjan Datta</b>, Canada Chair, Mount Royal University (Indigenous Land Rights and Land-Based Education and Practices as Pathways to Arctic Climate Action)</li> </ol> |
| 12:30 – 13:30 | <b>Lunch</b>   |

**Breakout session 1: 13:30 – 15:00**

| <b>Melting Cryosphere: Cascading Effects and Transitions</b><br>-<br><b>Part I</b><br><br>Chair: Finu Shrestha<br>ICIMOD                | <b>Risk, Resilience, and Adaptation</b><br>-<br><b>Part I</b><br><br>Chair: ICIMOD   | <b>Law, Governance, and Geopolitics</b><br>-<br><b>Part I</b><br><br>Chair: Marco Volpe                              |
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| <b>Tiina Seppälä</b><br><br>Learning Across Poles: Nepal and the Arctic Addressing Cryosphere, Water Security and Hydropower Challenges | <b>Ayushi Nirola / K.R.Rama Mohan</b><br><br>Between Nature and Neglect: Cloudburst Floods, the Anthropocene, and Resilience in the Sikkim Himalayas | <b>Medy Dervovic</b><br><br>Cryosphere Changes and International Law: Common Concern, Different Responsibilities?    |
| <b>Aishwarya Sanas</b><br><br>The Cryosphere Problematique: An Analysis of Glacier Melting as a Policy Problem in India                 | <b>Monila Limboo/ UPASANA LOHAR</b><br><br>Perceptions and Practices of Environmental Sustainability and Resilience among Ethnic                     | <b>Sara Fusco</b><br><br>Beyond Inclusion: Indigenous Sovereignty and Future of Environment Governance in the Arctic |

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|   | Communities of the Sikkim Himalayas  |   |
| <b>Akanksha Mary Balmuchu</b><br><br>Just Transition and Community-Based Adaptation Strategies in the Hindu Kush Himalayan Region | <b>Manasi Debnath</b><br><br>Rising Lakes, Rising Risks: GLOF Vulnerability in the Lachung Basin, Sikkim Himalaya, India Evaluating Glacial Lake Changes and GLOF Risk in Sikkim Himalaya Using AHP-Based Multi-Criteria Decision Modeling | <b>Suprita Suman</b><br><br>Cryosphere Governance: Studying the Role of Arctic Council and ICIMOD   |
| <b>Dinesh Dahal</b><br><br>Vegetation Dynamics under Climate Change in the Periglacial Ecosystem of Sagarmatha National Park      | <b>Sabrina Hasan</b><br><br>Transboundary Environmental Impact Assessment in the Cryosphere: Lessons from the Arctic for the Hindu Kush Himalaya Region  | <b>Chhaya Bhardwaj / Daniel Stein</b><br><br>Envisioning Polar Approaches to Climate Obligations through the ICJ Advisory Opinion on Climate Change |

Number of speakers: 11

**15:00 – 15:30 Tea break**

**Breakout session 2: 15:30 – 17:00**

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| <b>Melting Cryosphere: Cascading Effects and Transitions</b><br>-<br><b>Part II</b><br><br>Chair: Finu Shrestha<br>ICIMOD  | <b>Risk, Resilience, and Adaptation</b><br>-<br><b>Part II</b><br><br>Chair: ICIMOD   | <b>Law, Governance, and Geopolitics</b><br>-<br><b>Part II</b><br><br>Chair: Medy Dervovic  |
| <b>Ganesh Rawat</b><br><br>Characterization and Morphological Analysis of Trio-Glacial Lakes (Sankha Lake, Lukur Lake and Thakur Jiu Lake) of Barekot Patan, Jajarkot, Nepal | <b>Shakriya Pandey</b><br><br>VayuDrishhti: A Community-Driven Environmental Monitoring Approach for Strengthening Climate Resilience in the Third Pole | <b>Shah Fahad Ali Khan</b><br><br>Policy Implications for High-Alpine Mammal Conservation in a Changing Cryosphere: A Case Study of Markhor and Snow Leopard in Northern Pakistan |
| <b>Swati Jha</b><br><br>Study of Glacier Dynamics in Rikha Samba Glacier,  | <b>Namdu Lhamo</b>  | <b>Ahmed Nawaz</b>  |

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| Mustang, and Ponkar Glacier, Manang in Relation to Climate Change   | Human-Wildlife Conflict in Pungthra Village: A Case Study                                 | Conservation Governance in the Karakoram Glacial Landscapes: Protected Areas Challenges of Central Karakoram National Park, Pakistan |
| <b>Rajesh Kumar</b><br>Climatic Variability and Glacier Retreat in the Western Himalayas: A Multi-Basin Assessment from the Past Four Decades | <b>Vijaya Kumari Nunna</b><br>Future Prospects of Sustainable Ecotourism: The Way Forward | <b>S.M.Monirul Hassan / Syed Musa Kajim Nuri</b><br>Cooperation between Bangladesh and Third Pole Countries: A Strategy for survival |
| <b>Dhanendra K. Singh</b><br>Quantifying the Surge and Calving Dynamics of Tunabreen Glacier in Svalbard Using Earth Observation Datasets     |   | <b>Padmashree Anandhan</b><br>India's Governance of the Hindu Kush Himalaya: Lessons for the Arctic                                  |

Number of speakers: 11

## Day II

**Venue: Kailash Hall**

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| 09:15 – 09:25 | Keynote: Dr. <b>Franco Salerno</b> (Online/recorded tbd):<br><i>How do glaciers react to global warming in high mountain Asia? The Glacier cooling effect.</i><br><i>Rapporteur: Vanessa</i>  | 10 min. |
| 09:25 – 10:30 | Third Plenary session: <i>Climate Change-Induced Risks and Community Responses</i><br><br>Moderator: Santosh Rauniyar (OPRI-SPF)<br>Rapporteur: Amlan, Bisrantee<br>Panellists:<br><ol style="list-style-type: none"> <li>1. Prof. Dr. <b>Myrle Ballard</b>, Canada Research Chair, University of Calgary, Canada (Indigenous Science, Three Eyes Seeing, and Climate Change)</li> <li>2. <b>Hiroki-san</b>, OPRI</li> <li>3. <b>Dr. Pema Gyamtsho</b>, Director General, ICIMOD (TBC)</li> <li>4. <b>Markus Thonhaugen</b>, Senior Adviser, Nord University</li> </ol> | 50 min. |

**10:30 – 11:00 Tea break**

**Breakout session 3: 11:00– 12:30**

| <b>Melting Cryosphere: Cascading Effects and Transitions</b><br>-<br><b>Part III</b><br><br>Chair: Finu Shrestha<br>ICIMOD      | <b>Risk, Resilience, and Adaptation</b><br>-<br><b>Part III</b><br><br>Chair: ICIMOD                              | <b>Law, Governance, and Geopolitics</b><br>-<br><b>Part III</b><br><br>Chair: Medy Dervovic                               |
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| <b>Soko Aoki/<br/>Sujan Koirala</b><br><br>Prototype of Water Flow Simulator Using 3D Digital Twin in Mountainous Area of Nepal | <b>Sanjay Kumar Dwivedi</b><br><br>Modelling Potential GLOF Threat over Strategic Indo-China Transboundary Region | <b>Vivek Kumar</b><br><br>Melting Frontiers in Arctic and Himalayas: The Geopolitics of Thinning Glaciers and High Stakes |
| <b>Prasanna Dhakal</b><br><br>Impact of Black Carbon in Langshisha Glacier Melting  | <b>Padma Yangchan</b><br><br>Transboundary Challenges and Collaborative Governance                                | <b>Marco Volpe</b><br><br>Interpolar Science Diplomacy  |

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| Using a Glacio Hydrological Model   | for Mitigating Glacial Lake Vulnerability in Ladakh   |   |
| <b>Sidra Tul Muntaha</b><br><br>Spatiotemporal Analysis of Drought and Heatwave Events in the HKH Region of Pakistan: Implications for Glacial Melt and Water Resources | <b>Palakunnath Jacob Rohan George</b><br><br>Quantifying Direct Economic Damage from Glacial Lake Outburst Floods, and the Effect of Artificial Lake Lowering: A Simulation Based Case Study from North India | <b>Akriti Sharma</b><br><br>Science Diplomacy in the Cryosphere: Insights from the Arctic and the Third Pole  |
|   | <b>Earina Sthapit</b><br><br>Decadal Permafrost Distribution and Associated Geo-Hazard Susceptibility in the Kali Gandaki Valley  | <b>Alice Ibbott</b><br><br>A Pole Apart: Bridging the Environmental Legal Governance Gap in the Third Pole with Lessons from the Arctic and Antarctic |

Number of speakers: 12

**Lunch break: 12:30 – 13:30**

**Breakout session 4: 13:30 – 15:00**

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| <b>Climate and Technologies - Part I</b><br><br>Chair: Albert van Wijngaarden  | <b>Multilayered Considerations: Specific Climate Impacts on Indigenous and Local Communities - Part I</b><br><br>Chair: Karen Marie Oseland, ICIMOD          | <b>Knowledge Kaleidoscope: Narratives, Beliefs, and Education - Part I</b><br><br>Chair: Ranjan Datta,           |
| <b>Amita Prabhu</b><br><br>Arctic–Third Pole Climate Linkages: The Role of Greenland Sea Ice, Arctic Oscillation, and Indian Ocean SST in Modulating Hindu-Kush-Pamir Monsoon Rainfall | <b>Muhammad Ismail</b><br><br>The Twin Sentries of the Chati Boi Glacier: Conserving Life on the Frozen Border of Hindukush Karakorum Pamir Landscape (HKPL) | <b>Yashika Subba</b><br><br>The One with No Name: Climate knowledge and Local Perceptions in Darjeeling Himalaya |
| <b>Zahir Ahmad/ Farhana Altaf</b>  | <b>Mahpara Alam/ Fahad Bin Siddique</b>  | <b>Fatema Tuz Johora</b>   |

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| Geospatial Assessment and Monitoring of Glaciers of the Eastern Hindu Kush: Implication of Climate Change and Human-induced Stressors of Glacier Recession, Chital, Pakistan | Climate Justice in Practice: Integrating Dalit Needs into Bangladesh's Climate and Disaster Management Framework   | Nature, Culture and Crisis: Artistic Narratives of Climate Change and Advocacy in the Chittagong Hill Tracts, Bangladesh  |
| <b>Rajeev Ranjan</b><br><br>Hydrological and Water Balance Shifts under Climate Change in Central Himalayan Basin  | <b>Tapas Pal/<br/>Md. Masud-All-Kamal</b><br><br>Climate Crisis and Adopted Alternative Livelihood of Endangered Raji Tribes in Kumaon Himalayas, India: Light on the Abstract and Non-Abstract Challenges | <b>Kumari Vibhuti Nayak</b><br><br>Interweaving Faith and Ecology: Climate Crises, Ritual Adaptation, and the Oraon Community's Sarhul Festival in Jharkhand, India |
|  |  | <b>Gianluca Frinchillucci</b><br><br>Shamanic Practices and Spiritual Knowledge: Cultural Heritage and Community Resilience between the Arctic and the Third Pole   |

Number of speakers: 12

**15:00 – 15:30 Tea break**

**Breakout session 5: 15:30 – 17:00**

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| <b>Climate and Technologies<br/>-<br/>Part II</b>  | <b>Multilayered<br/>Considerations: Specific<br/>Climate Impacts on<br/>Indigenous and Local<br/>Communities<br/>-<br/>Part II</b>  | <b>Knowledge Kaleidoscope:<br/>Narratives, Beliefs, and<br/>Education<br/>-<br/>Part II</b>   |
| Chair: Pradyumna Rana  | Chair: Chhaya Namchu,   | Chair: Annie Dare, ICIMOD   |
| <b>Bishnu Maya KC</b><br><br>Unveiling Eco-Friendly Bamboo Based Fiber from Dendrocalamus hamiltonii Nees and Arn.ex Munro: A Sustainable Solution for the Mitigation of Climate Change through the Replacement of Plastic | <b>Khabir Uddin</b><br><br>Climate Change and Livelihood Crises of Indigenous Communities in the Chittagong Hill Tracts, Bangladesh | <b>Aras Kumar Gurung /<br/>Temsutola Pongen</b><br><br>Changing Climate, Vanishing Glaciers, and Solastalgia Among Two Indigenous Himalayan Communities |

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| <p><b>Datshan Sarode</b></p> <p>Technology-Enabled Artificial Glaciers for Climate-resilient Water Access at Everest Base Camp</p>            | <p><b>Suman Chakravarty</b></p> <p>Local People's Perception on Climate Variability in the Eastern Himalayan Regions: A Micro-Level Study among the Yolmo Indigenous Group in West Bengal State of India</p> | <p><b>Anusree Ghosh<br/>Tapas Ranjan Chakraborty</b></p> <p>Impact of Climatic and Environmental Changes on Religious or Spiritual Beliefs in the Hillocks of Sylhet, Bangladesh</p> |
| <p><b>Albert van Wijngaarden</b></p> <p>Exploring Technologies to Mitigate the Causes and Effects of Climate Change across the Cryosphere</p> | <p><b>Arifatul Kibria</b></p> <p>Land-Based Adaptation and Community Climate Action: A Case Study on Indigenous Community in Bangladesh</p>  | <p><b>Hasina</b></p> <p>Female Shamans and Sacred Glacier Rituals: Their Role in the Cultural Practices of Gilgit-Baltistan</p>  |
|   |  | <p><b>Jebunnessa Chapola</b></p> <p>Braiding Feminist Climate Ethics: Northern Indigenous Women's Perspectives on Climate and Water Justice</p>                                      |

Number of speakers: 10



## DAY III

**Breakout session 6: 9:00 – 10:30**

| <b>Climate and Technologies</b><br><b>-</b><br><b>Part III</b><br><br>Chair: Albert van Wijngaarden   | <b>Multilayered</b><br><b>Considerations: Specific</b><br><b>Climate Impacts on</b><br><b>Indigenous and Local</b><br><b>Communities</b><br><b>-</b><br><b>Part III</b><br><br>Chair: Chhaya Namchu                | <b>Knowledge Kaleidoscope:</b><br><b>Narratives, Beliefs, and</b><br><b>Education</b><br><b>-</b><br><b>Part III</b><br><br>Chair: Marco Volpe                                       |
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| <b>Afifa Nisar</b><br><br>Assessing the Vulnerabilities of Mountainous Communities Exposed to Household Air Pollution (HAP) in relation to Climate Change in Gilgit-Baltistan, Pakistan                   | <b>Stella Bickelmann</b><br><br>Zanskar's Cultural Landscape through the Climate Change Lens: A Case Study of Himalayan Communities and their Heritage Impacted by Climate Change                                  | <b>Ramcharan Vijayaraghavan / Kunzes Dolma</b><br><br>Learning from Ice: Inter-Polar Educational Pathways for Community Resilience in Ladakh and Beyond                              |
| <b>Praveen Kumar Singh</b><br><br>Tracing Black Carbon's Footprint on the Hindu Kush Himalaya: An Assessment of Emissions, Deposition, and Albedo Trends Using Multimodal, Gridded, and Satellite Detests | <b>Bhojan Dhakal/ Sabita Subedi</b><br><br>When Ice and Identity Melts: Interdisciplinary Pathways for Sustainability of Herdmans' Heritage and Agro-Pastoral Value Chains in Vanishing Frontiers of the Himalayas | <b>Tatiana Petrova</b><br><br>From Arctic Depopulation to Third Pole Overpopulation: Demographic Shifts, Student Mobility, and Integration Dynamics                                  |
| <b>Shipika Sundriyal</b><br><br>From Source to Sink: Mapping Microplastic Contamination in the Ganga River as a Baseline for Monitoring Future Trends   | <b>Pranay Sharma</b><br><br>Climate Change and Livelihood Vulnerability of Primitive Tribal Groups: Insights from the Toto Community in the Sub-Himalayan Region of Eastern India                                  | <b>Soumyajit Singha Roy/ Sayani Dey</b><br><br>Mapping Socio-Biological Patterns and Resilience in North Eastern States: Insights from NFHS- 5 and Associated Public Health Patterns |
|   |  | <b>Satyabrata Sahoo</b><br><br>Climate Change, Disaster, and Disability: Analyzing Inclusivity in the Sikkim and Uttarakhand Himalayas   |

Number of speakers: 11

**10:30 – 11:00 Tea break**

**PARALELL WORKSHOPS**

**11:00 – 15:00**

The goal of the workshops will be to provide a space to critically develop the key conference theme – what connects the HKH-region and the Arctic – and to design practical outcomes on both a policy and community level. There will be three parallel workshops. Participants are free to choose which workshop they want to participate in, although there will be limits based on room capacity and balance concerns. Parallel workshops are organized in two consecutive sessions. Participants are invited to remain in the same group in both sessions.

**WORKSHOP 1** *led by Albert van Wijngaarden*

Connecting the Arctic to the Third Pole HKH: Thinking through Connections and Differences

**WORKSHOP 2** *led by Kunzang/Pradyumna*

Policy-Relevance: Designing Messages for UNFCCC COP30 and IPY/IYGP

**WORKSHOP 3** *led by Ramcharan Vijayaraghavan*

People and Community Impacts of Climate and Cryosphere Changes: Thinking of Solutions  
& Stories

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|----------------------|-------------------|
| <b>11:00– 12:30</b>  | <b>Session I</b>  |
| <b>12:30 – 13:30</b> | <b>Lunch</b>      |
| <b>13:30 – 15:00</b> | <b>Session II</b> |

**15:00 – 15:30 Tea break**

**15:30 – 16:00 Reporting from the Workshops**

**16:00 – 17:00 Closing Session and Networking**