



June 2024

climate risk in vulnerable mountain regions of the world

Day 3 (30 June)

Jakob Steiner

Course content

28 June (1400 – 1700)

Pre course evaluation - general introduction – the mathematics of risk – introduction to assignments

29 June (1000 – 1700)

Examples of hazards / exposure types /vulnerability assessments

Communicating risk

Science to policy

30 June (1000 – 1700)

Serious game

2 July (1600 – 1800)

Final left overs – group discussion – self evaluation - recap

Course content

29 June (1000 – 1800)

10:00 – 10:45	Responding to climate risks in mountains – adaptive measures, DRR and long term strategies
10:45 - 11:00	Break
11:00 - 13:00	Intro to the Serious Game – preparations and National Deliberations
13:00 - 14:00	Lunch Break
14:00 - 15:00	COP Deliberations
15:00 - 15:15	Break
15:15 - 16:15	Plenary Session
16:15 - 17:00	Recap

International initiatives addressing mountain risks

Loss and Damage (<https://www.lossanddamagecollaboration.org>)

Mountain Research Initiative (MRI) (<https://mountainresearchinitiative.org/>)

Adaptation at Altitude (<https://adaptationataltitude.org/>)

Mountain Partnership (<https://www.fao.org/mountain-partnership/home/en/>)



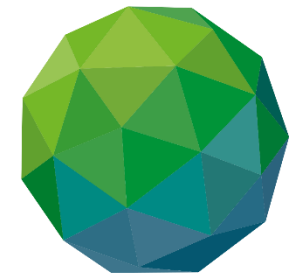
United Nations
Framework Convention on
Climate Change

UNFCCC and Loss and Damage

United Nations Framework Convention on Climate Change (UNFCCC)



- An international treaty to limit dangerous climate change
- Signed by 154 states in 192 (Rio de Janeiro)
- Secretariat in Bonn, Germany
- Hosts the Green Climate Fund (GCF) – goal of \$100 billion annually by 2020 – the Adaptation Fund (AF), as well as smaller LDCF, SCCF and GEF
- Invites the IPCC (Intergovernmental Panel on Climate Change) to provide assessments
- Conference of Parties (COPs) are arranged under the framework (many of them!)



**GREEN
CLIMATE
FUND**



United Nations
Convention to Combat
Desertification

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Home

UNCCD 16th session of the Conference of the Parties

RIYADH, SAUDI ARABIA | 2-13 DECEMBER 2024

[COP 16 Overview](#)

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Loss and Damage Fund

[...] Parties recognised by the UNFCCC as the [most responsible](#) for the climate crisis would provide predictable, and new and additional finance to address loss and damage.

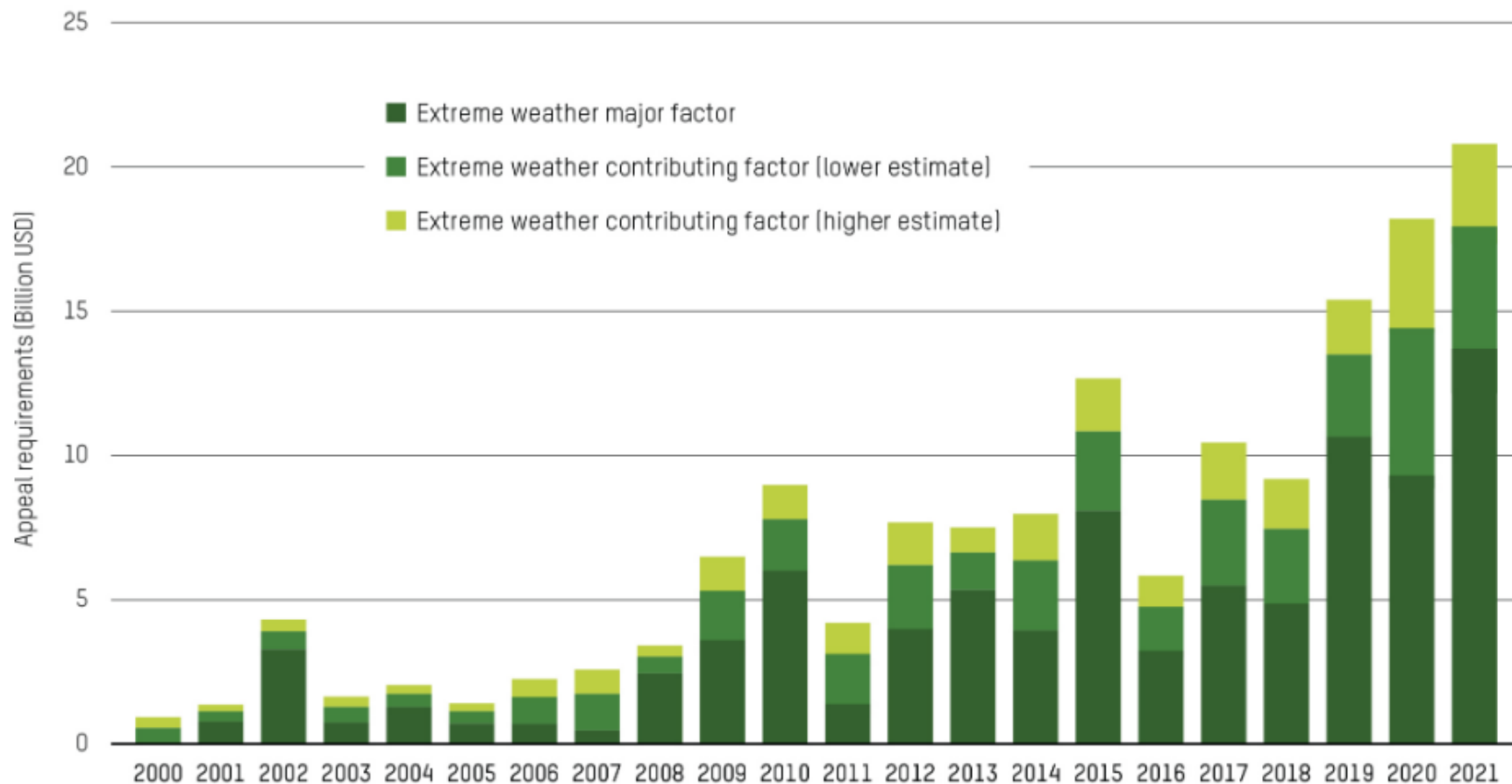
[...] Loss and Damage Fund will tackle the gaps that current climate finance institutions such as the [Green Climate Fund](#) (GCF) and humanitarian assistance [...] do not fill on Loss and Damage. The current international climate finance system is already [stretched to breaking point](#) due to [insufficient funds](#), lack of political will and poor quality climate finance that indebts countries.

Loss and Damage Fund

[...] Parties recognised by
provide predictable, and r

[...] Loss and Damage Fun
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Damage. The current inter
[point](#) due to [insufficient fur](#)
indebts countries.

Figure 3: Funding requirements for UN humanitarian appeals linked to extreme weather, 2000–2021



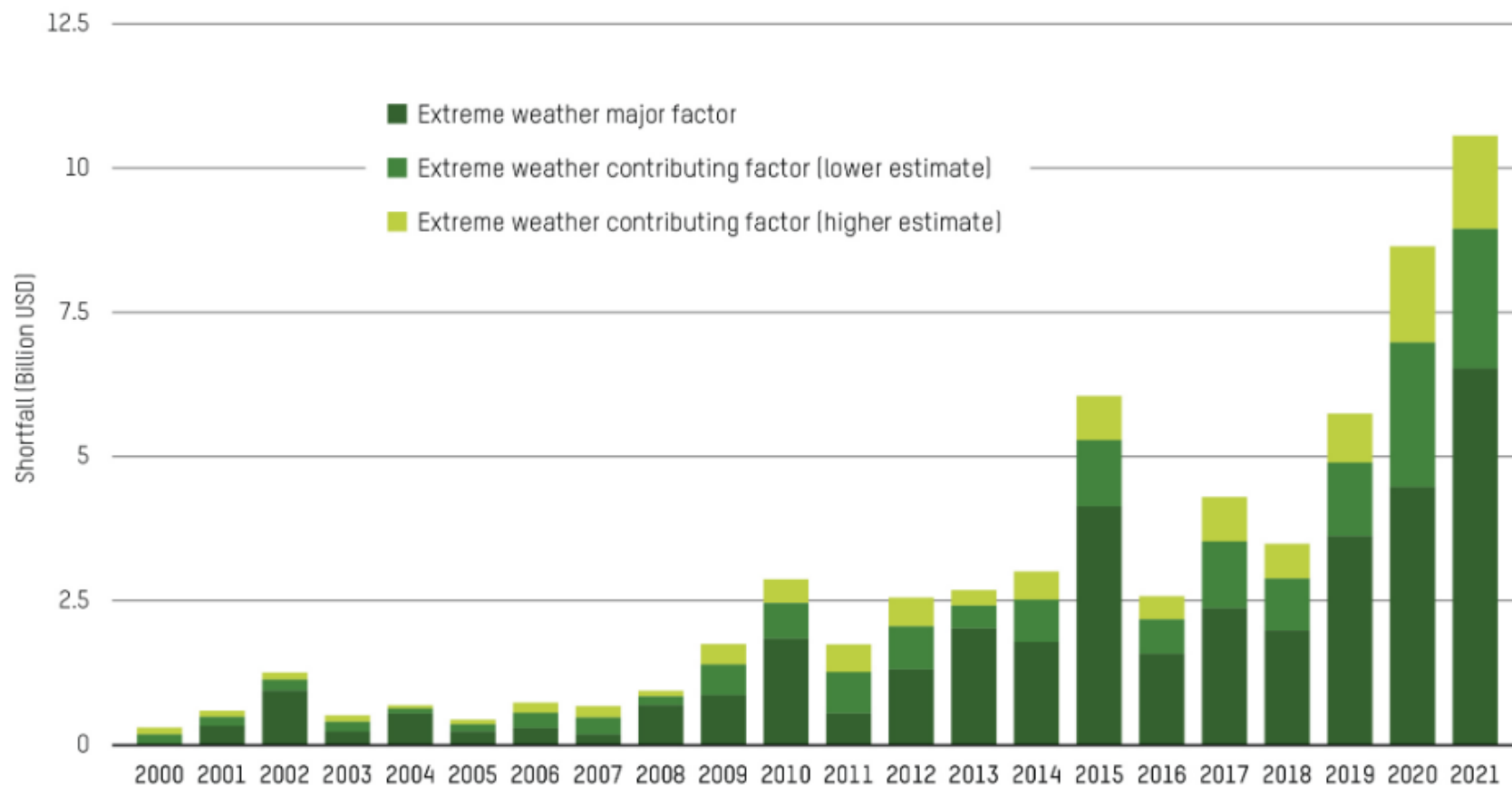
USD amounts are in 2021 real terms. The dark green sections cover appeals for which extreme weather was a major factor, and therefore 100% of the appeal requirement is counted. The higher estimate (lightest green) counts 50% and the lower estimate (middle green) counts 30% of the value of these appeals.

Loss and Damage Fund

[...] Parties recognised by the Fund to provide predictable, and not

[...] Loss and Damage Fund as the [Green Climate Fund](#) Damage. The current international [point](#) due to [insufficient funding](#) indebts countries.

Figure 4: Funding shortfalls for extreme-weather-related UN appeals, 2000–2021



Notes: USD amounts are in 2021 real terms. The dark green sections cover appeals for which extreme weather was a major factor, and therefore 100% of the appeal shortfall is counted. The higher estimate (lightest green) counts 50% and the lower estimate (middle green) counts 30% of the value of the appeal shortfall.

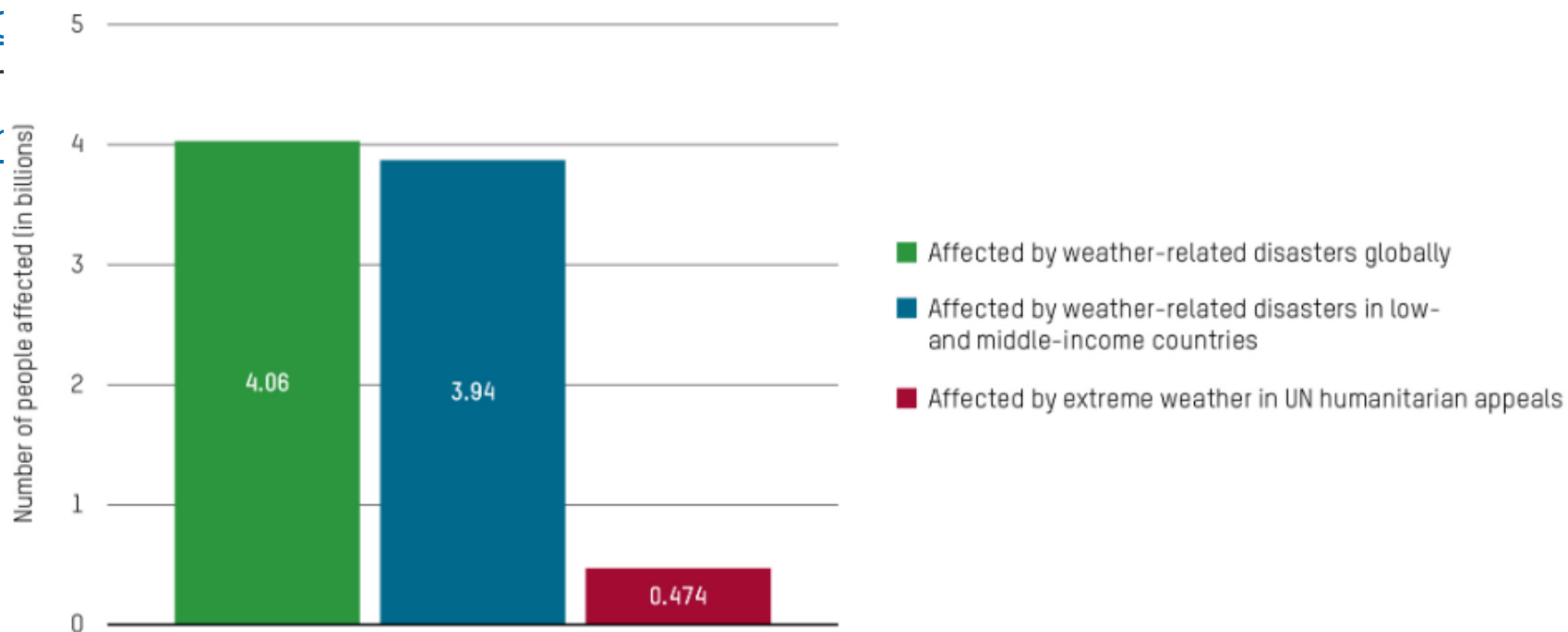
Loss and Damage Fund

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inadequacy of data
for mountain regions
hrisk.org

Figure 6: Number of people affected by weather-related disasters, 2000–2021



Source: Oxfam calculations using EM-DAT database.⁴⁴

Loss and Damage

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Table 3: Estimated future costs of loss and damage

Source, year	Estimated costs
<i>IFRC 'The cost of doing nothing' (2019)⁵⁹</i>	2030: humanitarian funding requirements for climate-related disasters could grow to \$20bn per year.
<i>Economist Intelligence Unit (2019)⁶⁰</i>	Measuring each country's direct exposure to loss from climate change and extreme weather events found that by 2050, GDP at risk could be: Africa (most vulnerable) 4.7% Latin America 3.8% Middle East 3.7% Eastern Europe 3% Asia Pacific 2.6% Western Europe 1.7% North America 1.1%
<i>Markandya and González-Eguino (2018)⁶¹</i>	Total annual residual damages for developing countries: 2030: \$290–\$580bn 2040: \$551bn–\$1tn 2050: \$1.1–\$1.7tn
<i>Climate Analytics (2015)⁶²</i>	Projected macro-economic damage of climate change for developing countries: 2030: \$400–\$431bn 2050: \$1–\$1.8tn
<i>Deloitte (2022)⁶³</i>	3°C trajectory could cost the U.S. economy \$14.5 trillion by 2070.

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Where do mountains come in?

Continuous attempts to bring *mountains* on the agenda since 1992

Less congruence in approach than SIDS (Small Island Developing States)

In some regions (like High Mountain Asia) complicated by political conflict

Often central governments themselves not located in mountains (perceived *marginal issue*) – leading to an increased emphasis of ‘*upstream-downstream linkages*’ and ‘*cascading risks*’

Mountain Partnership (FAO)

Formal and government led

MOUNTAIN PARTNERSHIP STEERING COMMITTEE



The Steering Committee of the Mountain Partnership provides programmatic orientation to the Mountain Partnership, oversees the preparation of a four-year strategy and a two-year workplan. The 18-member body monitors the work of the Mountain Partnership Secretariat, the implementation of the 'Mountain Agenda' and the achievements and impacts of their respective electoral groups.

Steering Committee members are elected to four-year terms by the various membership categories and regions. They meet annually and select a Chair and Vice Chairs.

The following governments and organizations are serving on the 2022-2025 Steering Committee:

Donor Organization to the MPS

Italy (Chair)

Governments

Asia and the Pacific: Nepal

Europe: Andorra, Romania (Alternate)

Central Asia: Kyrgyzstan

Near East and North Africa: Yemen

North and Central America and the Caribbean: Dominican Republic (Vice Chair), Guatemala (Alternate)

South America: Peru, Argentina (Alternate)

Sub-Saharan Africa: Malawi, Uganda (Alternate)

Host Institution of the MPS

Food and Agriculture Organization of the United Nations

Intergovernmental Organization

United Nations Environment Programme, United Nations University (Alternate)

- > Our Vision and Mission
- > Governance and Strategy
- > **Mountain Partnership Steering Committee**
- > Mountain Partnership Secretariat
- > Logos and PowerPoint presentations
- > FAQ
- > Definitions

2024

- > MP Steering Committee meeting report (22 February 2024)

2023

- > MP Steering Committee meeting report (26 October 2023)
- > MP Steering Committee meeting report (20 April 2023)

2022

- > MP Steering Committee meeting report (1 December 2022)
- > MP Steering Committee meeting report (29 September 2022)
- > MP Steering Committee meeting report (30 August 2022)
- > MP Steering Committee meeting report (21 June 2022)
- > MP Steering Committee meeting report (30 March 2022)
- > MP Steering Committee Documents (13 January 2022)

2021

- > MP Steering Committee

Mountain Range Organisations

Alps: Alpine Convention - <https://www.alpconv.org/en/>

- Convention that includes a lawyer and proposes legal texts that are not binding but are used by arbitration courts in case of inter-governmental as well as country-internal disagreements

Carpathians: Carpathian Convention <http://www.carpathianconvention.org/>

- Similar to above, less developed/younger

Andes: CONDESAN <https://condesan.org/>

- Network of organisations working in the Andes (research heavy)

Hindukush-Himalaya: ICIMOD <https://www.icimod.org/>

- Intergovernmental organization (8 countries) that supports governments with expertise and provides platform for exchange

Mountain Research Initiative

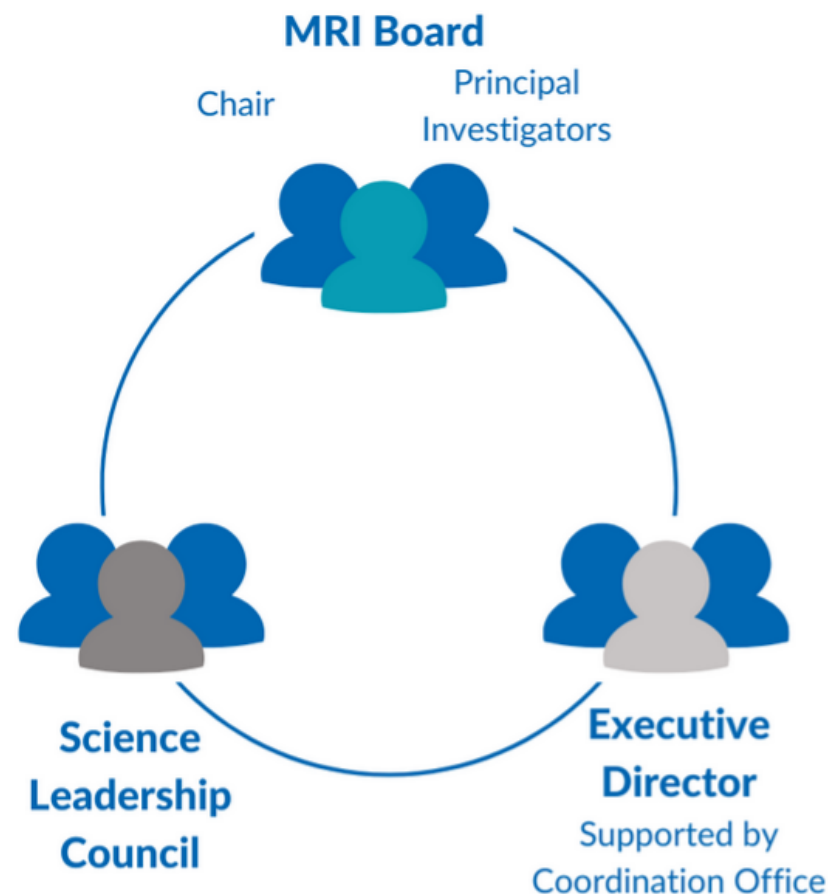
MRI Governance

The MRI Board (Chair and co-Principal Investigators), together with the MRI Science Leadership Council and the MRI Executive Director, constitute the MRI Governing Body. Together, they oversee and provide strategic direction and advice to support the implementation and development of both flagship and community-led activities, with the support of the Coordination Office staff.

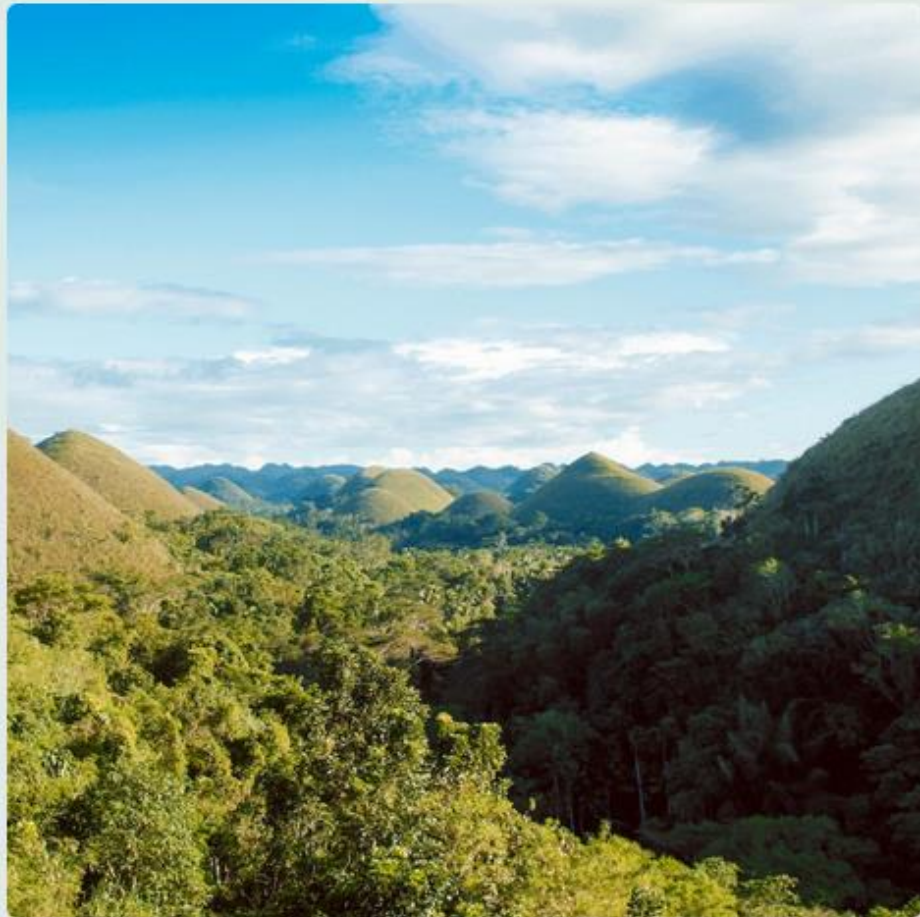
As a team, we focus on supporting the mountain research community in making meaningful and fulfilling connections for our changing mountains and safeguarding them as social-ecological treasures for ecosystems and people worldwide.

Learn more about us:

- [Principal Investigators](#)
- [Science Leadership Council](#)
- [Coordination Office](#)



Adaptation at Altitude



Our Objective

The Adaptation at Altitude programme seeks to increase the resilience and adaptive capacity of mountain communities and ecosystems to climate change by:

- Improving the knowledge of appropriate climate change adaptation strategies in the mountains
- Transferring that knowledge through science-policy platforms to inform decision-making in national, regional and global policy processes

Adaptation at Altitude will foster exchange among the mountain areas of the world and seek short and long-term solutions to the problems arising from climate change.

International Mountain Conference



✉ support@imc2025.info



SUMMERSCHOOL

International Mountain Conference

September 14 - 18 2025

CONFERENCE CORNER ▾

VENUES ▾

TRAVEL INFO ▾

CONTACT ▾

ABOUT ▾

#IMC DASHBOARD ▾



Mountains of Knowledge



Knowledge of Mountains

#imc25

Who is missing?