Expert Dialogue on Mountains and Climate Change

Concept note

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For webposting

1. Mandate

Decision 1/CMA.5[1] requested the Chair of the Subsidiary Body for Scientific and Technological Advice (SBSTA) to hold an expert dialogue on mountains and climate change at the sixtieth session of the SBSTA (June 2024).

In recognition of the importance of mountains, the CMA mandated the SBSTA chair to convene this expert dialogue, noting that, over the years, our governing bodies have repeatedly highlighted their importance, including within the context of conserving, protecting and restoring nature and ecosystems, ecosystem-based approaches, and resilience measures.[2]

Mountains are also one of the priority thematic areas under the Nairobi work programme on impacts, vulnerability, and adaptation to climate change (NWP).[3] SBSTA 59 noted that the matter of mountains and climate change would be considered at that session in the context of the 16th Focal Point Forum on mountains, high-latitude areas, and the cryosphere,[4] and that the SBSTA Chair would ensure that mountainous ecosystems were addressed as a priority under the NWP.[5]

2. Context

Mountains, with their rich biological diversity, play a crucial role in the livelihoods of millions of people. Mountains provide essential ecosystem services to communities and ecosystems, with particular relevance for the water cycle, including in downstream areas.

The IPCC indicates that "climate-related hazards, such as flash floods and landslides, have contributed to an increase in disasters affecting a growing number of people in mountain regions and areas further downstream". It also notes that overshooting 1.5 °C will result in irreversible adverse impacts on certain mountain ecosystems.[6] Climate change impacts on mountains are therefore not bound to national political borders, and have transboundary implications. The IPCC further indicates that "Adaptation responses to climate driven impacts in mountain regions vary significantly in terms of goals and priorities, scope, depth and speed of implementation, governance and modes of decision-making, and the extent of financial and other resources to implement them".[7]

The Convention, in its preamble and in Article 4.8, identifies mountains as fragile ecosystems. Decision 22/CP.27 emphasizes the need to address systematic observation gaps, particularly in developing countries and in ocean, mountain, desert and polar regions and the cryosphere, to improve understanding of climate change, climate-related risks and tipping points, and adaptation limits, and to

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1 1/CMA.5, para 181.
2 1/CMA.5, para 56.
3 FCCC/SBSTA/2022/6, para 18.
4 https://unfccc.int/event/nwp-fpf-mountains-high-latitude
5 See FCCC/SBSTA/2023/8, para 11.
6 Adler, C., P. Wester, I. Bhatt, C. Huggel, G.E. Insarov, M.D. Morecroft, V. Muccione, and A. Prakash, 2022: Cross-Chapter Paper 5: Mountains. In: Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 2273–2318, doi:10.1017/9781009325844.022.
7 https://report.ipcc.ch/ar6/wg2/IPCC_AR6_WGII_FullReport.pdf

ensure enhanced delivery of climate services and early warning systems. There is also a specific call to improve the performance, development and application of regional and subregional climate models and other downscaling methods in order to improve understanding of local climate-related risks and inform regional, national and local decision-making, including in developing countries with high mountain areas, particularly the LDCs and SIDS.[8]

In recent years, mountainous countries have expressed a keen interest in having a dedicated space to discuss the particular vulnerabilities to climate change in mountain ecosystems, as well as opportunities for enhanced action and support to increase resilience under the UNFCCC.

3. Objectives

Overall, the expert dialogue will provide space for scientists, policymakers and frontline communities to come together and share knowledge, experience and insights on strengthening the resilience of mountain ecosystems.

Specifically, the expert dialogue will provide a unique opportunity to convene relevant experts and stakeholders with the aim of:

- Enhancing understanding of climate change impacts on mountains and downstream communities, including in a transboundary context;
- Showcasing solutions contributing to the resilience of mountain ecosystems to climate change;
- Discussing ways to accelerate climate action at scale and at all levels, contributing to the resilience of mountain ecosystems, including in countries with fragile mountain ecosystems.

The dialogue will focus on understanding past and possible forward-looking actions in relation to research and systematic observation, dimensions of the iterative adaptation cycle and loss and damage, mitigation strategies, means of implementation and support (financial support, capacity-building, and technology development and transfer).

In addition, the expert dialogue is envisioned to contribute to the UAE framework for Global Climate Resilience.

4. Scope of the dialogue

While issues related to mountains and climate change are multifaceted and vary from region to region, the expert dialogue will only focus on specific topics of relevance.

To ensure that the topics and ensuing questions are most relevant, findings from the analyses of relevant national reports (such as national adaptation plans, national communications and nationally determined contributions) of countries in mountain regions have been used as initial inputs to identify thematic areas and cross-cutting issues for the expert dialogue.

The whole day event will be divided into three parts, namely:

I. Background and context

- Vulnerability of mountains, including transboundary issues and impacts on downstream communities;
- Role of mountains in building climate resilience;
- Research and systematic observation.

[8] FCCC/SBSTA/2022/10.

II. Solutions contributing to resilience of mountainous ecosystems to climate change

- Dimensions of the iterative adaptation cycle and loss and damage;
- Mitigation strategies;
- Means of implementation and support (financial support, capacity-building, technology development and transfer).

III. Accelerating climate action in mountains

- Building a collective vision towards resilience of mountainous ecosystems;
- Strengthening efforts, including long-term transformational and incremental adaptation, towards achieving the targets under the Global Goal on Adaptation, in the context of implementing the UAE framework for Global Climate Resilience, insofar as it relates to mountainous ecosystems.

The table below provides an overview of relevant issues identified by various countries in mountain regions in their national reports. This provides initial input for framing discussion questions for the expert dialogue.

Thematic topics	**Issues**
a) Vulnerability of mountains	Water scarcity and hydrological changes (e.g. GLOFs), ecosystem degradation and biodiversity loss, increased risks from natural hazards, infrastructure and livelihood risks, transboundary issues, impacts on downstream countries and communities.
b) Research and systematic observation	Improving climate models and downscaling, enhancing observation networks, utilization of advanced technologies.
c) Dimensions of the iterative adaptation cycle and loss and damage	Ecosystem-based adaptation, water management and conservation, sustainable agricultural practices, community engagement and capacity building, infrastructure resilience, disaster risk reduction and emergency preparedness.
d) Mitigation strategies	Renewable energy and energy efficiency, sustainable land and forest management, emission reduction commitments, adoption of Low Emission Development Strategies.
e) Means of implementation and support	*Financial support*: Mobilization of and enhancing access to national and international funding, innovative financing and private sector engagement, sector-specific investment needs. *Capacity-building*: Technical expertise and institutional capacity, training and awareness programmes, research and knowledge sharing, strengthening governance. *Technology development and transfer*: Adoption of climate-resilient and low-emission technologies, international collaboration for technology transfer, capacity building in technology use and management, use and application of traditional and indigenous knowledge.

The following cross-cutting issues were also identified in the national reports of mountainous countries. These issues will be addressed during the thematic topics in the dialogue,[9] as appropriate:

- Transformational adaptation
- Implementation of NAPs and NDCs

[9] These cross-cutting issues are identified based on the review work and will be further refined and expanded based on inputs from experts.

- Transboundary ecosystems, impacts and actions
- Engagement of values, knowledge systems and worldviews of Indigenous Peoples and local communities
- Impacts on downstream communities and countries (which are not mountainous)

5. Conduct of the expert dialogue

Ahead of the expert dialogue taking place during SB 60, ***the SBSTA Chair will organize an informal virtual meeting[10] to initiate the technical discussion on various topics.*** The outcomes of the informal meeting will be used to finalize the agenda for the expert dialogue. The day and time for this virtual informal meeting will be announced soon.

The expert dialogue will take place on 5 June 2024, during SB 60, from 10 a.m. to 1 p.m. and from 3 p.m. to 6 p.m. It will be divided into two parts:

- ***A dialogue on the different thematic aspects related to mountains and climate change;***
- ***A concluding panel to summarize key findings and recommendations.***

In addition, the expert dialogue will include the following considerations in its design and/or methodology:

- Discussions will revolve around various themes aligned with the topics presented above.
- It will be interactive and will use a combination of case study presentations and facilitated discussion.
- The facilitated discussion will be based on guiding questions drafted with inputs from a variety of experts.

The secretariat will prepare an informal summary report under the guidance of the SBSTA Chair. The report will capture the proceedings and outcomes of the dialogue and will be made available on the dialogue webpage.

6. Engaging experts and Parties

In the spirit of inclusivity, experts, Parties and key stakeholders will be engaged in the different stages of the expert dialogue – from the informal virtual meeting to developing the agenda, finalizing the topics, refining the guiding questions and identifying relevant examples and good practices.

The concept note and agenda for the dialogue and all relevant information, including notifications, will be published on the event page.

Notifications will be sent to all Parties, UN organizations, IGOs and observer organizations.

Relevant and multidisciplinary experts with experience in mountains and climate change issues from various regions will also be engaged through virtual modalities (e.g. email, virtual meeting).

[10] The virtual meeting will be an open event for all interested Parties and experts, date to be decided.