

Overview of Mountain Issues and Status of Mountain Agenda: *Background and Context*

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Presentation outline

1. Key issues facing global mountain systems
2. Slow progress of Mountain Agenda
3. Commonality of issues and challenges in Adaptation, Conservation and Sustainable Development
4. Need to merge global Conventions (UNFCCC, CBD & UNCCD)

Global issues

- Global climate change poses a grave threat to the global mountain systems - biodiversity, hydrology, and culture,
- The rate of warming on the mountains faster than in the plains due to GHG, aerosols, black carbon deposits,
- High-elevation plants and animals losing habitat area as they move higher with some 'disappearing'
- Availability of freshwater for environment flows and for human uses is seriously affected,
- Frequency and ferocity of extreme events such as floods, drought, and crop failure increasing
- Lack of or inadequate long-term scientific data
- Knowledge inadequacy, gap and scientific uncertainty

Issues: Atmosphere and Cryosphere

- Greater warming with elevation, >4000m affecting glaciers, permafrost and ecosystems
- Seasonal temperature variability is increasing and altitudinal lapse rate of temperature is decreasing;
- Precipitation does not show consistent spatial trends, it is expected to decrease in high altitudes while increase in middle and low hills;
- Representative and regionally analyzed data and trends are lacking

Issues: Forest, Biodiversity and Pasture

- All scenarios suggest a **large change in natural vegetation**: shift of vegetation types, eco tones, eco regions, loss of productivity
- Impact on forest and biodiversity species composition with **increased occurrence of invasive species?**
- Due to negative balance between precipitation and evapo-transpiration, **adverse impact on productivity of agriculture and livestock sectors;**
- **Ineffectiveness of** traditional forest and biodiversity conservation and **management knowledge & tools**

Issues: Too much and too little water

- Cross-border implications of glacier melting & GLOFs
- Increasing trend of flood disasters – both flash and seasonal floods
- Rapid rate of ice and snow melting & its impact on region's fresh water resources.
- People's traditional capacity to adapt eroding and coping strategies and practices affecting community resilience potential
- Govt. institutions uncoordinated; environment issues still lack priority in funding

Knowledge, information and capacity gaps

- Future availability of water, biodiversity (gene pool), ecosystem services such as tourism asset; and hydrological processes
- Climate resilient technologies and practices
- Monitoring and early warning systems: more important: both national and transboundary
- Market or economic incentive-based reward system for conservation and adaptive practices
- Role of other drivers, migration, loss of traditional knowledge, inadequacy of coping mechanisms
- Nonfunctioning of traditional or national institutional frameworks for mountains

Inadequate and complex funding opportunities: mountain countries facing new challenges

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- Low funding priority to address the issues of knowledge gap and the adaptation challenges in Mountains,
- The climate and environmental change funding landscape is complex and not optimal,
- The funds are more aimed at addressing short or mid term adaptation needs – finance for long term adaptation program is not clearly available
- Current Talks on Climate Finance don't adequately address vulnerability of Mt. countries and ecosystems
- No coherent response strategy to mountain countries and ecosystems,
- The roadmap for a long-term adaptation & SD in mountain systems is hence not charted or lack clarity & specificity;

Current status of mountains in terms of conservation, development



FOR MOUNTAINS AND PEOPLE

- Mountain communities and ecosystems **are facing new hazards, vulnerabilities and climatic risks;**
- Climate change is **aggravating the already bad situation** created by globalization, biodiversity loss, and rapid socioeconomic changes;
- Mountains continue to **face inaccessibility, marginality, deprivation and unrecognized** for the ecosystems services,
- High **dependence on ecosystems** for livelihoods
- Most of **communities face poverty, malnutrition**, shortage of safe drinking water, poor health services and access to education & housing

Rationale for converging CBD and UNFCCC goals

- 2010 CBD targets and the goals largely unmet; the set of 29 indicators agreed seem to be impractical and inadequate
- Developing countries parties cite lack of access to technical and financial assistance for the failure
- There is also lack of institutional linkages between the three conventions - globally and nationally
- IPCC has flagged the reality that climate change is a major threats to our living planet.
- The Global Biodiversity Outlook 3 also cites climate change as an increasing threat to biodiversity
- The overall aim of these or all global conventions should be to combat the impacts of climate change on ecosystems goods & services and vulnerable people
- Separation of areas with largely common issues & solutions- climate change, biological diversity and desertification - is therefore not an ideal approach to the Rio Conventions

Need to work together for enhancing resilient mountain systems

Need to...

- Raise awareness on the disproportionate fragility and vulnerability of mountain ecosystems and people to climate change
- Commonly represent the interests of mountain people
- Achieve greater recognition of the importance of mountains and their resources by UNFCCC and other associated processes
- Achieve equity in adaptation finance
- Work under the wider framework of sustainable development goals (Rio +20)

Thank you

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