

# International Expert Consultation Meeting: Mountain Initiative on Climate Change

Convened by the Government of Nepal and ICIMOD  
23 - 24 September 2010, Kathmandu, Nepal



# Preamble

This document contains the full report of the first 'International Expert Consultation Meeting: Mountain Initiative on Climate Change' held 23-24 September 2010 in Kathmandu. A synthesis of the discussions and conclusions has also been published. The Consultation Workshop was attended by high level policy and decision makers, national experts involved in the UNFCCC process, and representatives from academia, international organisations, and development partners. Participants came from **Afghanistan, Bangladesh, Bhutan, Canada, China, Columbia, India, Italy, Kazakhstan, Lao PDR, Nepal, Pakistan, Peru, Tajikistan**, and **Switzerland**, and included experts from **ICIMOD, the Mountain Partnership Secretariat (FAO), World Bank, UNDP, DFID, DANIDA, FINNIDA, UNEP, and ADB**. The meeting was organised jointly by the Ministry of Environment, Govt. of Nepal (MOE/GON) and ICIMOD.

The purpose of this meeting was to identify strategic issues and topics that are of significant importance to the global mountain community in the context of climate and global change. The Rio Conference (in the form of Agenda 21) and the International Year of Mountains (2002) Declaration highlighted the need to recognise and mainstream the sustainable mountain development agenda in the development dialogue, but so far it has received scarce attention. The aim of the meeting was to provide a basis for raising important mountain issues in the ongoing UNFCCC negotiations and the upcoming Rio+20 preparatory meetings and Summit to provide the Mountain Agenda with increased impetus and recognition in these multi-lateral environmental negotiations and agreements.

The '**Mountain Initiative for Climate Change Adaptation in Mountain Regions**' initiated by the Government of Nepal plans to bring the mountainous countries together and build a common platform to support the Mountain Agenda. The Mountain Initiative provides a framework within which mountain countries, in collaboration with specialised global and regional agencies, can work together for greater recognition of the critical role of mountain ecosystems in the context of global climate change. It highlights the need to better advocate for mountain ecosystems based on state-of-the-art knowledge so that mountain people can be supported more effectively in their struggle to adapt to the new challenges, and enabled to benefit from emerging opportunities. The International Centre for Integrated Mountain Development (ICIMOD) is providing technical support and backstopping to the governments in the region in this initiative led by the Government of Nepal, and especially to the Ministry of Environment.

# International Expert Consultation Meeting: Mountain Initiative on Climate Change

Preparing a Roadmap for the Ministerial Conference of Mountain Countries and UNFCCC process including Rio+20

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## Background

There is a need for countries with mountain ecosystems to reinforce the Mountain Agenda in the ongoing UNFCCC processes by developing a common initiative to address the growing problems of climate change on mountains. Even though concrete decisions may not emerge at the 16th meeting of the Conference of Parties (COP16) in Cancun, Mexico, the meeting provides an opportunity to discuss common concerns related to mountain ecosystems. COP16 can also provide mountain countries a platform to emphasise the need to strategically align the Mountain Initiative, aimed at integrating the Mountain Agenda in future negotiations. These initiatives can pave the way to advocate for a sustainable mountain development (SMD) agenda in a more coordinated manner at meetings on climate and other mechanisms of Rio+20, including COP17 in 2011.

The Mountain Initiative of the Government of Nepal begins with this International Expert Consultation, as a preparatory meeting for a Ministerial Conference of Mountain Countries (scheduled for spring 2011), and COP16, Cancun. The technical documents produced under the Mountain Initiative, along with the outputs of the International Expert Consultation, as well as the Ministerial Conference are expected to feed into the United Nations Framework Convention on Climate Change (UNFCCC) in 2011. The initiative also comes before the Rio+20 Summit, planned for 2012, where progress on the Mountain Agenda may be assessed from both the climate change and sustainable development perspectives. Rio+20 would be an opportunity for the Mountain Initiative to capitalise on synergies between climate response action and sustainable development objectives. The Mountain Initiative, therefore, has a broader strategic agenda that is both meaningful and has a long-term outlook.

## Objectives of the Meeting

The specific objectives of the International Expert Consultation were as follow:

- 1) To launch the Mountain Initiative. Three keynote speeches and two technical papers initiated the discussion. The technical papers dealt with
  - Mountains of the World – Ecosystem Services in a Time of Global and Climate Change: Seizing Opportunities-Meeting Challenges,
  - Funding Mechanisms, Instruments and Facilities for Mountain Systems.
- 2) To develop and strengthen networking and partnership between mountainous countries and countries with mountain ecosystems in order to forge a common understanding on the Mountain Initiative based on the recognition of common problems needing common solutions.
- 3) To assist countries in putting the Mountain Agenda into the UNFCCC related processes (AWG-KP, AWG-LCA, Nairobi Work Programme, Bali Framework of Action)
- 4) To prepare the technical grounds for strategically planning and implementing the Mountain Initiative activities at COP16, the Ministerial Meeting of Mountain Countries, in capacity development activities, and for COP17-related meetings, including the Rio+20 Summit.

## Expected outcomes of the Meeting

The International Expert Consultation Meeting was aimed at developing a set of concrete ideas for future joint activities under the Mountain Initiative and paving the way for coordinated actions for attaining common goals. The specific expected outputs of the workshop were as follow:

- Establish an International Working Group of experts for promoting the Mountain Initiative in their respective regions and mobilise active participation of policy and decision makers
- Identify strategic issues, gaps in information and analysis, and options relevant to the Mountain Initiative that could be brought up during the UNFCCC processes
- Provide a road map of activities for COP16, the Ministerial Meeting, capacity development programmes, and COP17, including the Rio+20 Summit.
- Agree on a set of concrete next steps to take the Mountain Initiative forward

## Proceedings

The main points presented and discussed in the four sessions are summarised briefly in the following sections.

# Proceedings

## Session 1: Opening

- Chair:** Dr Dinesh Devkota, Honourable Member, National Planning Commission, Government of Nepal
- Chief Guest:** Mr Thakur P. Sharma, Honourable Minister, Ministry of Environment, Government of Nepal
- Other Guests:** Dr Andreas Schild, Director General, ICIMOD, and  
Dr Ganesh Raj Joshi, Secretary, Ministry of Environment, Government of Nepal

### Welcome Remarks

#### Dr Andreas Schild, Director General, ICIMOD

With the realisation of the increasing threats of climate change in mountain areas, it has become very important to have collective efforts for coping with and adapting to the changes, and for devising more effective ways of advocating for the Mountain Agenda globally. In this context, the Mountain Initiative is much more than the highlighting of mountain issues at periodic meetings of the UNFCCC, especially because the United Nations Conference on Environment and Development (UNCED) or 'Rio+20' (Earth Summit 2012) will take place in two years time, where there is need for special attention for placing mountain ecosystems as a priority in the global agenda. The Mountain Initiative of the Government of Nepal (GoN) is a major attempt towards highlighting the Mountain Agenda, the commitment of the GoN is testified by the presence of the Honourable Thakur P. Sharma, Minister of Environment (MOE) at this meeting. The Mountain Partnership Consortium (MPC), whose role is to foster partnership among mountainous countries, will be very important in implementing the Mountain Initiative agenda globally. Therefore, the presence of Mr Douglas McGuire, MPC Coordinator at this meeting is very relevant. The World Bank's increasing interest and significant contribution in climate change discussions also have a special meaning, particularly in the context of mountain areas: the presence of Mr Klas Sander, Natural Resource Economist, Environment Department, World Bank is therefore greatly appreciated.

### Introduction of Participants

#### Dr Madhav Karki, Deputy Director General, ICIMOD

Dr Karki introduced the key dignitaries and participants, and explained the context for organising the International Expert Consultation. The partnership between MoE and ICIMOD had made it possible to organise the meeting at rather short notice. Dr Karki introduced the keynote speakers: Dr Andreas Schild, ICIMOD; Mr Klas Sanders, World Bank; and Dr RS Tolia, an advocate of sustainable mountain development from India, and also a friend of ICIMOD. He touched upon the high expectation the meeting had generated in terms of shaping the regional and global position of the mountainous countries in the climate change debate, adding why it was important to have the Andean mountain communities represented at the meeting. He said that it would help in establishing clear linkages among different mountain communities and countries – in the Hindu Kush Himalaya-Pamir and the Andean region. The presence of all representatives of the mountain communities was expected to help in shaping a common voice on mountain issues and result in a call for working together. Dr Karki also stressed the importance of regional cooperation in the context of advocating greater global attention on the Mountain Agenda.

### Book launch and inauguration

Mr Thakur P Sharma, Minister of Environment, Nepal, and Dr Andreas Schild jointly released the publication 'Mountains of the World-Ecosystem Services in a Time of Global and Climate Change: Seizing Opportunities-Meeting Challenges', which seeks to provide technical inputs to the Mountain Initiative. Minister Sharma inaugurated the meeting.

### Inaugural speech

#### Mr Thakur P. Sharma, Minister of Environment, Nepal

This two-day meeting has been organised to provide technical inputs to the International Ministerial Conference of Mountain Countries on Climate Change (rescheduled and to be held in March 2011). I believe the deliberations of the meeting will be extremely fruitful for working jointly on mountain issues in general, and the impacts of climate change on the mountain communities and their livelihoods and ecosystems, in particular.

The Government of Nepal has launched the Mountain Initiative to share knowledge and experience on climate change-induced impacts and forge a common approach to deal with specific concerns relating to mountain ecosystems, people, and their livelihoods, and benefit from the climate change regime as well. In order to move in this direction, the Government of Nepal, in collaboration with ICIMOD, has prepared framework papers on a) The Mountain Initiative, and b) Funding instruments, mechanisms and opportunities and how to make them more supportive to mountain ecosystems. I hope that these papers will provide a basis for our future work.

We are aware of the clear inter-dependencies, inter-relationship and linkages between the uplands and lowlands, any activity in the uplands will have multiple impacts in the lowlands. As climate change is now a given that will continue in the future, we need to take this challenge as an opportunity to protect the mountains and benefit from the global, regional, and national climate change activities and instruments. Let us continue our efforts jointly from the mountain countries of the world to voice our issues to get the international community to respond to our concerns.

Finally, I would like to appreciate the valuable presence of delegates and invitees at this meeting and thank ICIMOD for its effort to bring all of us here to discuss our common challenge. I believe that the meeting outputs will be the building blocks for our long journey to protect the mountains from the adverse impacts of climate change.

## Concept and Progress on the Mountain Initiative

**Dr Ganesh R Joshi, Secretary, Ministry of Environment, Nepal**

Mountain ecosystems cover around 25% of the earth's land mass, host about 13% of the world's population; act as a reservoir of ice and snow, and provide essential ecosystem services to the global market – and are now experiencing serious challenges posed by climate change. This has exposed millions of mountain inhabitants to the impacts of climate change, including further marginalisation of the poor, women, and indigenous/marginalised communities. Characterised with fragility, sensitivity, and complexity, mountain ecosystems are highly susceptible to climate variability that could lead to changes in biodiversity, quality of ecosystem services, food security, cycles of drought and floods that affect both upstream and downstream communities and ecosystems.

The fragile mountain ecosystems were, for the first time, recognised for their significant contribution to ecosystem balance at the United Nation's Conference on Environment and Development (UNCED 1992), and actions for protecting them were included under Chapter 13 of Agenda 21. However, the implementation has not been as intended, and mountain issues are not getting due attention in the climate change negotiations, among others. This is mainly due to uncoordinated efforts among the key agencies seeking to address the mountain issues and low understanding in mountainous countries about the UNFCCC and other negotiation processes. This understanding needs to be improved by bridging existing gaps and making provisions for safeguarding the interest and concerns of mountain people. There is a need first to establish a platform for knowledge and experience sharing; and second to initiate collective and concerted actions.

Realising this need, the Rt. Honourable Madhav Kumar Nepal, Prime Minister of Nepal, made the following statement at COP15 in Copenhagen: "I therefore take this opportunity to call on all the mountain countries and stakeholders to come together, form a common platform, and make sure that mountain concerns get due attention in the international deliberations. Let us make sure that our interests are prominently represented in future COP negotiations and let us make sure that our efforts towards adaptation obtain the required international support."

Following the decision by the Government of Nepal to start the Mountain Initiative, a proposal on the Mountain Alliance Initiative (MAI) was prepared in consultation with key technical partners such as ICIMOD. The objectives of the MAI are: (i) Initiating the process to develop an 'alliance', (ii) promoting specific concerns of the 'mountain states' within the ongoing UNFCCC processes, and (iii) drawing the attention of the global community to support mountain countries to initiate long-term climate change adaptation related efforts, regionally and globally. Several activities were then planned keeping 'knowledge generation and sharing' and 'advocacy for collaboration and cooperation' as the two focus areas. The South Asian Association for Regional Cooperation (SAARC) meeting in Thimphu welcomed the Government of Nepal's initiative to organise a Ministerial Meeting of Mountainous Countries in Kathmandu, which has also been noted in the Thimphu Declaration. Likewise side-events organised by the Government of Nepal during Climate Change Talks in Bonn in June and August 2010 received encouraging responses from participating delegates from mountainous countries. A Memorandum of Understanding (MoU) has been signed between the Ministry of Environment and ICIMOD, where the latter is to assist

with technical support and backstopping, knowledge generation and capacity building, and networking. An International Ministerial Conference of Mountain Countries on Climate Change was originally planned for 4-5 October and has been rescheduled to 2011. The Ministerial Conference will attempt to bring together ministers from 30 developing countries, 11 Least Developed Countries and 10 developed countries. Two technical papers – on the framework and the financing mechanisms and instruments – have been prepared for the meeting. These papers will be now discussed at this meeting. A consultation meeting with ministers from some mountain countries may be held in Cancun. The outputs of this International Expert Consultation Meeting will therefore be the building block for the future activities of the Mountain Initiative.

## Workshop Objectives, Structure and Process

**Dr Bhaskar Karky, Resource Economist, ICIMOD**

As described by the previous speakers, the mountains have not been adequately addressed by the UNFCCC process and there is a clear need to strategically align the Mountain Initiative for integrating the Mountain Agenda in the UNFCCC debates. This will feed into the Ministerial Conference and information sharing during COP 16 and other UNFCCC meetings during 2011. This Initiative will also serve as basis for climate response actions and sustainable mountain development strategies when the Mountain Agenda comes up for discussion at the Rio+20 Summit in 2012. The present meeting aims to a) introduce the Mountain Initiative framework through three keynote addresses and two technical papers for discussion by the national, regional, and global experts; b) develop and strengthen networking and partnership to forge a common understanding on the Mountain Initiative; c) assist countries in placing the Mountain Agenda into the UNFCCC related processes; d) strategise and implement Mountain Initiative activities during the COP16 meetings and side events; e) plan the Ministerial Meeting of Mountain Countries, and f) prepare for capacity development activities of national climate change nodal agencies.

Furthermore, the expectation is also to form geographic groups for highlighting global and regional issues and framework conditions for the Mountain Initiative and thematic groups to discuss the financing of the Mountain Agenda, capacity building and knowledge sharing, and networking strategies for the Mountain Initiative.

The meeting is also expected to form an international working group of experts for promoting the Mountain Initiative in different developing regions and mobilising policy makers for active participation in the UNFCCC and other international forums; identifying strategic issues, gaps in information and analysis, and options relevant to the Mountain Initiative to assist countries in the UNFCCC processes; preparing a roadmap of activities for the Mountain Initiative during COP meetings, the Ministerial Meeting, and its capacity development plans; and coming up with an agreed set of 'next steps' for taking the Mountain Initiative forward. The meeting will come up with a draft of the two-day deliberations for review and adoption by the plenary. The document is expected to provide guidelines for taking the Mountain Initiative forward.

## Expectations from the workshop

**Dr Dinesh Devkota, Honourable Member, National Planning Commission, Nepal**

Firstly, I thank and congratulate the Ministry of Environment and ICIMOD for organising this meeting at the right time, well ahead of COP16 in Cancun. Apart from feeding into the UNFCCC processes, the outcomes will also provide a basis for contributing to the Rio+20 meeting.

This meeting has underscored the significance of mountain ecosystems and I believe expert views and knowledge shared in the coming two days will prepare better ground for us to work together with common agenda in coming days.

Regardless of the fact that we are from different corners of the world, we share similar problems: deforestation, water hazards, food insecurity, mass wasting, poverty, over dependency on resources, etc. These problems are further aggravated by climate change. Since we have common problems to address, we hope to receive your support and cooperation in taking the Mountain Initiative forward.

## Session 2: Highlighting Global and Regional Issues and Framework Condition

**Chair:** Ms Lorena Santamaría Rojas, Advisor – Climate Change Mitigation Group, Ministry of Environment, Housing and Territorial Development, Colombia. Leader of the Delegation from Latin America

### Keynote Speech: Rationale for Discussing the World's Mountains

**Dr Andreas Schild, Director General, ICIMOD**

Mountain ecosystems first gained international recognition as areas requiring particular attention at the Rio Summit in 1992. The Summit brought sustainable mountain development (SMD) into the global debate through the inclusion of Chapter 13 in Agenda 21. Initially restricted to watershed management, the SMD discussion is now becoming more inclusive and is seen as a vital component of the Earth system. Mountain ecosystems are now seen as water towers, biologically and culturally rich areas, spaces for recreation, and indicators of climate and environmental changes.

Despite this, many international documents do not include SMD. For example, the UN Resolution 2010 (64/205) doesn't refer to climate change, and mountain systems are also not mentioned in documents debated at the UNFCCC COP15. Nepal's Prime Minister's statement at COP15 further substantiates this. He said, 'we have not done our homework for climate change' and called upon the global community to form the Mountain Initiative. This lack of attention has occurred primarily due to the gap in knowledge and data for the mountain areas, which needs to be generated in order to effectively advocate for SMD. Similarly mountains and mountain countries have not really produced any common agenda of the sort part forward by BASIC (Brazil, South Africa, India and China) and other interest groups. It is important to find a space for SMD in international debates and negotiations. This discussion should include issues related to both fully mountainous countries, and to countries that have mountains within their borders.

Mountain ecosystems are facing a variety of socio-environmental problems due to changing precipitation patterns resulting in too much or too little water, upstream-downstream effects, increasing food insecurity, outmigration, mountain specific poverty, and livelihood and security related issues. Mountain ecosystems in tropical and subtropical environments are more vulnerable than others. And climate change has further worsened the situation by introducing new vulnerabilities, which have made the existing problems more complex.

At present the global development agenda receives ecosystem specific complements, and there are specific financial instruments that need to be tapped for SMD. Increasing awareness of ecosystem services offered by mountains such as water, air, biodiversity, cultural diversity, and recreational spaces, have significantly improved the level of understanding about mountains, which is creating new opportunities for SMD.

We have to develop global measures to address these problems and keep mountain ecosystems sustainable, whilst adapting to new vulnerabilities including those brought about by climate change. Since mitigation will not solve the 'whole' problem of climate change, adaptation becomes more important and contextual. Climate change discussions should carefully see other emerging issue like 'black carbon', which are likely to influence climate change discussions in coming days.

In this context, it is very important to form a common agenda on mountain climate change; initiate measures to bridge the knowledge gap; launch special efforts from the countries with mountain interests, especially at the UNFCCC COP meetings and the Rio+20 Summit; and maximise the benefits from existing and new financial instruments.

### Keynote Speech: Non-mountainous countries and their mountain interest

**Honourable Dr R S Tolia, Government of Uttarakhand, India**

The discussion of the Mountain Initiative and mountain climate change should include both mountainous countries, and countries like India that have mountains but are not necessarily thought of as mountainous countries as a whole. India has eleven 'Mountain States', whose total area is probably large than that of many other mountainous countries.

International debates on mountain climate change have to be seen at different levels as we have the dual responsibility of addressing problems at the global as well as the national level. Some global problems may not match those at the national level, in which case we have to harmonise between these two priorities. Of the eight national missions of India

for addressing climate change impacts, one – the Sustainable Himalayan Mission – is dedicated to SMD in the Indian Himalayas. Some other missions are also related to SMD.

Climate change adaptation should be applied as a preparatory and preventive measure. Adaptation manifests in many ways. The Ministry of Environment and Forests and GB Pant Institute of India are contributing to this process. The Shimla Declaration of the Chief Ministers' conclave, which is the output of the Meeting of Mountainous States of India in October 2009, should be useful to move forward in pursuing the Mountain Agenda, as it emphasises action oriented initiatives. The heads of eight state governments of mountainous states and three other states with mountains attended the Shimla meeting. The Ministry of Development of North East India and Ministry of Foreign Affairs, in addition to the Ministry of Environment and Forests (MOEF), the nodal ministry of ICIMOD attended the meeting. The idea was to cross-fertilise relevant issues and efforts because overall governance remains pivotal to the success of any activity.

While debating SMD, it is equally important to realise the scenarios of changes 'with' climate change and 'without' climate change to get a better picture of the change that has resulted from the changing climate.

## **Keynote Speech: Contemporary issues in the Mountains and Adaptation Challenges to Global Changes**

**Klas Sander, The World Bank/USA**

Since there is no universally accepted definition of mountains, it is hard to differentiate them from the lowlands. The United Nations Environment Programme, World Conservation Monitoring Centre (UNEP-WCMC) is in the process of updating mountain related facts and figures. The World Bank sees the Himalayas and Andes as the most important mountain ecosystems, and the Chinese ranges, East Africa, Central America, and High Atlas in Africa as very important. Similarly, Papua New Guinea and Indonesia are home to tropical mountains. The debate on mountain climate change should go beyond melting glaciers, which often misleads the discussions. Climate change in the mountain regions is a multi-disciplinary challenge of this century.

Mountain people are among the poorest and also have limited livelihood options. Mountains host many marginalised groups (indigenous people) who lack access to markets, services, information, decision-making tools and power. The limited opportunities, inaccessibility, marginality, and fragility in mountains have forced the mountain people to migrate for work, creating a 'feminisation' of societies. This has also threatened the cultural heritage, while conflicts and catastrophes have added more pressure. Altogether, these have increased vulnerability and poverty. One of the biggest problems in the SMD discussion is that mountains are a 'blank spot' in climate change research. Climate change impacts are stronger in mountains than elsewhere, which has further magnified existing challenges, and climate variability is likely to increase beyond past experiences making traditional knowledge insufficient to deal with extreme climate events. Issues like change in snowfall/snowmelt patterns, and changes in precipitation patterns, could be more important than glacier melt.

In this context, it is very important that we effectively advocate on mountain climate change beyond melting glaciers; decrease scientific uncertainty; generate and exchange relevant knowledge; increase pilot investments that are innovative and tailored to address mountain challenges; and build partnerships at global and inter-regional levels promoting concerted efforts for policy dialogue, knowledge development, resource mobilisation, project design, and implementation.

Globally, the World Bank is one of the largest investors in mountains when we include infrastructure. The Bank also has pilot investments on climate change, which include the Pilot Program for Climate Resilience (PPCR), Forest Carbon (REDD-FCPF, BioCF, FIP), and Climate Investment Funds (CIF). The World Bank facilitates partnerships, tests innovative solutions (e.g., PES), and drives targeted analytical work to enhance policy design and project implementation.

## **Mountains of the World: Ecosystem Services in a Time of Global and Climate Change**

**Batu Uprety, Joint Secretary, Government of Nepal**

Mountains are vital in providing resources to downstream people and ecosystems. However, they have received less attention in international meetings, documents, and negotiations. Mountains include nearly half of the world's biodiversity hot spots and many of the most sensitive ecosystems. They act as the world's water towers and host a critical mass of humanity. Mountain people are exposed to a system of multiple stressors: globalisation, land use change, loss

of biodiversity, and so on, and now climate change acts as an additional stressor that may also exacerbate other stressors. Despite substantial knowledge gaps, it is widely recognised that climate change is a reality in mountain areas. Mountainous countries have contributed least to climate change but they are suffering the most from the consequences. There is a risk that climate change may reverse progress in the mountains and limit the inherent capacity of the mountain people to adapt to the changes.

UNFCCC Article 4.8 stresses the significance of mountain ecosystems and urges the global community to give them full consideration. But this has not worked as expected and it is now our responsibility to make it work. In the Convention on Biological Diversity (CBD), mountain biodiversity has received good attention and it also has a separate programme of work. But the mountains do not figure in the climate change discussions.

Changes are taking place everywhere; it has affected us all in one way or the other. Things are rapidly changing and in the next few years there will be added pressure on natural resources, and increasing degradation in sectors like water and forests. Upstream-downstream linkages need to be established to develop effective solutions, a cooperation approach, and joint plans. There are many challenges and opportunities ahead and we need to build better cooperation among mountain countries and regions to tackle the problems.

Since the Bangkok Talks in 2009, the Nepali UNFCCC negotiators together with their Kazakh and Kyrgyz counterparts have been discussing the possibility of developing a group of mountainous countries. The Prime Minister of Nepal formally shared this desire at COP15. Ongoing activities of the Government of Nepal towards this end include better knowledge generation and sharing, better networking, and strengthening of the Initiative for fostering better cooperation in the future. How we develop a 'programme of work' on mountain climate change is now important.

The proposed Alliance for Mountains (Mountain Initiative) is intended to enhance the adaptation to, and resilience of, mountain communities to climate change; raise awareness on the disproportionate fragility and vulnerability of mountain ecosystems, and the problems people are facing due to climate change; represent the interests of mountain people in international forums; increase recognition of the importance of mountains and their resources by UNFCCC and other processes; help establish sustainable upstream-downstream linkages; and seize emerging opportunities for implementing appropriate adaptation and mitigation efforts.

## Plenary discussion on the keynote speeches and Mountain Initiative Framework Paper

Moderator: Dr LMS Palni

### Main themes

#### Impact of climate change

- Retreat of glaciers and contribution of black carbon (emission due to anthropogenic causes).
- Clear methodology to be developed to estimate black carbon emissions and measure its contribution to local/regional climate change, including glacier melt.
- Will black carbon be an advantage or disadvantage in international advocacy?
- Switching mechanism or technology to be developed to mitigate black carbon emissions.
- Creating a global alliance for efficient cook stoves and accelerate their use. (Change use of burning equipment at household level).
- Carbon finance available for cooking stoves.
- Glacier retreat (Indian experience: wise to wait for more scientific evidence/data).
- Gap between knowledge available and knowledge needed.
- Concern about rate at which climate is changing, likelihood of mountain vulnerability.
- Harmonisation of long-term demands into short-term processes.
- Climate change should be part of development process.
- Scientific uncertainty and knowledge gap in mountains.

## Mountain Alliance and one voice on climate change (CC)

- Initiatives and interventions of different countries should be well coordinated.
- ICIMOD to coordinate the interventions.
- Article 4.8.G H has been a bottleneck to mountain countries to put forward the issue.
- Technical initiatives: ICIMOD to coordinate and GoN to move ahead with the initiatives.
- Glaciers have a strong symbolic power to demonstrate impact of climate change but should not be overemphasised in climate change negotiations.
- Other criteria such as mass balancing, dramatic change in glacier volume in the Khumbu region, science-based knowledge to be generated to support demands and claims
- Nepal initiative to focus on mountains all over the world.
- Black carbon is an alarming phenomenon, it is also a new opportunity for developing countries, but it is diverting the issues related to climate change.

## Bringing mountains into the UNFCCC process

- Mountain initiative will lead the alliance.
- Examine the vulnerabilities related to climate change and those in the absence of climate change, and demonstrate the difference.
- All mountain countries have taken initiatives but documentation and sharing is necessary.
- Perspective of ordinary mountain people to be brought into policy discourse (they are concerned about accessibility and road connectivity as priorities).

## Funding instruments, mechanisms and opportunities

### Anna Bruederle, Consultant

Funding in climate change has become an important area in the last few years. In the Copenhagen Accord, countries pledged US\$ 30 billion to fund both mitigation and adaptation (in a balanced manner) programmes for the period up to 2012. The priority is on the more vulnerable developing countries and areas. The amount is to be raised to US\$ 100 billion by 2020. Globally, many funds are available for mitigation and adaptation – ranging from emissions reduction to technology transfer.

From the accessibility point of view, the mountain countries can access the Adaptation Fund more easily, compared to other funds. At the same time, the Special Climate Change Fund (SCCF), Least Developed Countries Fund and Pilot Program for Climate Resilience (PPCR) are also important sources of funding that mountain countries should consider. The Adaptation Fund is simple and directly accessible to developing countries – proposals can be submitted through national implementing agencies. It also explicitly mentions mountain ecosystems as one of the priority areas and the resources can be used at community, national, or transboundary level. The SCCF focuses prevention rather than response, where adaptation is the top priority in mountains. Some mountain countries – Peru, Bolivia, Ecuador in the Andes, and Azerbaijan in Central Asia have already received funding from the SCCF.

In general, climate change funding resources are scattered, some are in a transition state and some others (e.g., Official Development Assistance) have been diverted to 'fast start' funding.

## Key issues for mountains

### Madhav Karki, Deputy Director General, ICIMOD

An overview was provided of the key issues facing the mountains, including their regional importance as well as the associated challenges, and the way forward based on the presentations and keynote speeches. The main issues identified were as follow:

- Global climate change poses a grave threat to mountain hydrological systems
- The rate of warming in the mountains is faster than in the plains.

- High-altitude plants and animals are losing habitat and are forced to move higher; some species are already disappearing.
- Availability of freshwater for natural systems and for human use has been seriously affected.
- Extreme events such as floods, droughts, and crop failure are more frequent.
- There is a lack of, or inadequate, long-term scientific data.
- There are persistent knowledge gaps and uncertainty.

## Working Groups

Three working groups were formed to discuss ways to bring regional perspectives to a common global agenda:

1) Latin America & International; 2) Asia (HKH region); and 3) Asia Pacific (Central Asia, and South East Asia, European and others).

## Session 3: Towards a Global Mountain Agenda

### Latin America, Africa and International

#### 1. High priority issues

**Water is of high priority for mountains: it relates to livelihood and energy security**, not only for mountains but also for the densely populated lowlands. Water issues become more prominent downstream than in the upstream, with fewer people and anthropogenic disturbances. Upstream-downstream linkage is a causal chain, and the issues should be discussed in the light of a river basin approach. There is a need for interagency/interministry/interdepartment cooperation as well as transboundary cooperation to deal with water-related issues. There is a need to convene and convince a wide range of stakeholders.

**Food security, biodiversity, and the agricultural sector are important issues linked with climate change and vulnerability of mountain populations.** The shift in crop composition, change in vegetation stratification, high vulnerability in traditional monoculture cash crops, and invasion of new weeds, all pose serious threats to agrobiodiversity. Irregular precipitation, long drought, and temperature changes aggravate food insecurity.

**Dealing with 'additionality' under adaptation funding is complex and cumbersome.** Climate funding needs to recognise and support mountain development under the sustainable development framework. Otherwise, adaptation funds could siphon off resources required just to establish additionality and inhibit real development work on the ground, e.g., malaria control as a health programme requires adaptation funds, but cannot receive financing because it is not seen as additional in climate change terms. Many Least Developed Countries end up paying high consultation fees to international experts just to establish additionality for being eligible to apply for international finance.

**Lack of conscious discussions and debate on the importance of the mountains** has shadowed the genuine issue of mountain vulnerability and climate change. Mainstreaming climate change concerns into the national policy framework is therefore crucial.

Reducing mountain vulnerability is an unequivocal answer because climate change impacts will strike the mountain people hard, and also because these communities have nominal access to technology and alternatives.

#### 2. Known and unknown areas requiring more analysis for a common understanding

**Unknown: Mountain specific data have not been captured and the risk factor is not known.** There are high 'unlikely projections' of climate change vulnerabilities, and how to demonstrate 'additionality of adaptation projects' is not very clear. This has caused us to work with high level of uncertainties. Baselines need to be established to quantify the prevailing risks for better understanding. For instance, the cost of inaction is not known.

**Known: Mountain ecosystem and ecosystem services are degrading** and mountain livelihoods are becoming vulnerable. Melting glaciers, too much and too little water, and food insecurity are becoming major issues. Climate change is increasing the uncertainty and vulnerability levels.

**Common understanding:** There are differences in understanding between countries: mountains in Latin America, Africa, and Asia have different issues, levels of vulnerability, levels of scientific information, and resources to adapt to climate change. There needs to be a common agenda for all the mountains and the Mountain Initiative could help develop the common priorities and understanding.

**Black carbon is an emerging issue.** More concrete information is required on black carbon, which is already gaining attention at international negotiations. There may be a potential for small mountains countries to benefit from using black carbon as a negotiating tool (bargaining instrument, but options like fuel switching need to be explored).

### 3. Addressing mountain issues within the UNFCCC framework and Rio+20

**Mountain initiatives with a clear road map** are crucial to pave the way for UNFCCC and Rio+20 intervention strategies because mountain countries need to dovetail sustainable development with climate finance.

**There should be a common understanding on “vulnerability of ecosystems”** based on instruments like national communications.

**Mountain countries need to form an alliance** to seek international recognition of the Mountain Agenda, priorities, and mountain specific issues. They need to go with the alliance, as it is necessary to forge the scattered priorities into a common interest and raise a concerted voice through a common platform rather than seeking individual solutions as it was done in the past.

**Coordinate with the existing initiatives such as the water group** (specialised group) for reiterating emphasis on the Mountain Agenda.

**Use black carbon to increase the leverage for better negotiation:** The use of fuelwood and biomass as a source of energy, low efficiency transport systems, dust and deserts in the LDCs and developing countries are the source of aerosols and black carbon that have been polluting the atmosphere and impacting the glaciers. This could be used as a negotiating tool to build pressure to formulate international strategies to address climate change concerns in the mountains by, say, exploring switching options to mitigate black carbon and ensure that appropriate technologies are made available.

Climate change and adaptation needs to be part of the sustainable development process. The Mountain Initiative should work with all multilateral environment agreements (MEAs) in order to develop strong negotiating capacity. This would also ensure cross-sectoral integration.

IPCC fallouts should be countered by making available credible data and information through the Mountain Initiative in the upcoming climate change negotiations and to SBSTA where necessary.

### 4. Joint efforts to be taken by mountain countries to bring the Mountain Agenda to the UNFCCC process

**Collaboration at regional level, and then at the international level** is required. More analytical inputs are needed to illustrate the direct concerns of scenarios with and without climate change, covering both upstream and downstream implications.

**Joint efforts must not only focus on UNFCCC, but on other MEAs as well and the Rio+20.**

It is necessary to have/develop a common vision on the importance of mountain ecosystem services and have a prioritised approach rather than making individual approaches and it should encompass all MEAs.

**More cooperation in transboundary water issues would be helpful** (e.g., Bolivia, Peru, Chile, and India, China, Nepal, Bangladesh).

## 5. Need for Mountain Alliance within the UNFCCC?

All the participants agreed that there is strong need to shape joint efforts through an alliance of mountain countries. An Alliance could result in more opportunities, as there would be formal commitments among mountain countries. This will be left to the political leaders to decide at the ministerial level meeting planned for March 2011.

There is a need to put forward a strong business case for the Mountain Alliance not only at UNFCCC but well beyond Rio 20+ and after. It should be included in the list of priorities for adaptation measures (e.g., have a separate Programme of Work as under the CBD).

An Alliance can help improve access and influence in negotiations like the SIDS and the Rainforest Alliance and to improve finance flows.

The Alliance should include all mountain countries and countries with mountain ecosystems (developed countries, developing countries, and LDCs) from all continents, as mountain ecosystems are important globally, this will make the Mountain Agenda heard in the MEAs and also provide a good platform to share knowledge and conduct research.

Developed or developing countries with growing economies that are key players in the negotiations that have other more important issues can also work with the Mountain Alliance Initiative because the Mountain Agenda at state or sub-regional level is justifiable and important, and does not contradict with the international position taken by the countries.

## Asia (Hindu Kush-Himalayas)

### 1. Issues of high priority

#### Issues

- Glacier melt and GLOFs
- Accelerated deforestation
- Water insecurity
- Food insecurity/agriculture/biodiversity
- Energy insecurity
- Poor governance
- Poverty, limited livelihood options and out-migration
- Scarcity of water in winter for irrigation/agriculture, salinity intrusion, floods and droughts
- Need to document traditional knowledge (e.g., related to CCA)
- Need to manage/maintain natural systems/sinks as adaption tools

#### Priorities

- Knowledge gap: Lack of reliable data, therefore the need to establish a regional mechanism to share transboundary information (mainly in water resources but also in other sectors; data harmonisation is very important through development of agreed standards and scientific validation in order to prevent an alarmist approach)
- Improving governance mechanisms
- Establishing upstream-downstream linkages and developing compensation mechanisms, and making them part of international negotiations; mountain problems are not limited to mountains, so they need global attention
- Retaining mountain population in the mountains
- Food-water-shelter/habitat

### 2. Known and unknown areas requiring more analysis for a common understanding

#### Known/Realisation

- Mountain ecosystems are vital in sustaining life in mountains as well as downstream communities, and for providing goods and services to the global community.
- Acceptance of climate variability and environmental change and their effects, especially increased vulnerability of mountain ecosystems and further marginalisation of mountain people

### Areas needing more analysis

- Understanding of challenges, opportunities, and changes taking place in mountain ecosystems in both the 'climate change' and 'no-climate change' scenarios
- Evidence supporting causes, status, trends, and future impacts of the change

### Unknown/uncertainty

- Climatic uncertainty
- Long-term climate related data
- What exactly has climate change changed in the mountain ecosystems?

### Question of common understanding

- Some common understanding is there.
- Problem is realised.
- Collective efforts and common positions are needed.
- Regional cooperation needed to solve transboundary problems
- Mountainous countries/regions should be compensated.

## 3. Addressing mountain issues in the UNFCCC and Rio+20

### Financing

- For research-adaptation-knowledge documentation and mitigation
- Fund is there – question is how to access available funding?
  - MES/PES/compensation
  - Subsidy will also be required for appropriate mountain areas
  - Declaration of mountain (ecosystems) as special areas of global attention
  - Special fund/funding mechanisms are needed for mountain countries

### Capacity Building

In several ways for different groups

### Technology transfer

Several areas

## 4. Joint efforts to be taken by mountain countries to bring the Mountain Agenda to the UNFCCC process

### Expert network

- A network of experts working on mountain issues needs to be formed for advocating mountain issues at various levels, including the UNFCCC negotiations.

### Coordinated efforts

- Important initiatives taken by a number of mountainous countries (e.g. Nepal, Kyrgyzstan) need to be well coordinated.

### Understanding the process

- Mountainous countries have to improve understanding about international negotiations, especially the UNFCCC meetings, and develop common positions to for effectiveness.

### Approach and special events

- Need to develop long-term vision and plans
- Special efforts needed for UNFCCC meetings and Earth Summit 2012 (Rio+20)

## 5. Need for Mountain Alliance within the UNFCCC.

### Yes, considering that

- Membership of the Mountain Alliance (MA) should not prevent any member countries from benefiting from any other funding mechanisms;
- MA itself needs to be clearly defined, including its structure, functions, and flexibility to the countries that have mountain interest but at the same time may have many other more important national priorities (e.g., India and China);
- Clarity is needed on who should be benefiting and how.

### Yes, it should be useful in, and should benefit from

- Establishing and advocating highland-lowland linkages,
- Proper documentation of associated knowledge,
- Bringing up real issues of mountains.

## Asia Pacific (Central Asia, South East Asia, European and others)

### 1. High priority issues

- Central Asia has an issue of glacier melt, water scarcity, and freshwater quality. There is a high gap of data on, for example, how much water is there now and how much will be there in the future. How much freshwater will be available is still a big question. Climate change has also begun to impact public health, e.g., malaria and water borne vectors. Further research and studies need to be done.
- SE Asia: Watershed protection and transboundary river management are key issues. Some financial support is needed to conserve the watersheds. There should be some regional projects on emissions reduction too. Also, most of the people in SE Asia are living below the poverty line and are highly vulnerable and incapable of coping with the climate change induced impacts.

### 2. Known and unknown issues requiring greater understanding

- Temperature is rising and change in precipitation is occurring as a result of climate change, which is known, but at what rate the precipitation has changed is unknown, therefore the consequences are still difficult to trace out.
- Mountains and socioeconomic systems are under pressure due to the climate change. How humans and natural systems adapt under the increased stresses is unknown.

A common regional understanding is that there is an immediate need for a long-term mitigation strategy focusing on the energy sector. However, mitigation technologies require finance. Also adaptation to climate change induced impacts always come at a higher cost. Mountain specific access to finance is necessary. Institutions like ICIMOD can play a role in the process.

### 3. Addressing mountain issues in the UNFCCC and Rio+20

- Mountain countries can make a common agenda and coordinate the common message. We (mountain countries) should speak with one voice.
- Mountain countries should advocate for programmatic approaches to adaptation and mitigation options.
- Global data clearly show the lack of data on mountain areas or 'hot spots'. These data gaps should be strongly communicated to the UNFCCC to demonstrate that mountain countries have data gaps.
- Mitigation and adaptation need to be seen under the sustainable development framework.

There is a need to form a Mountain Alliance, but the process to lead up to such an alliance will take time and needs to be decided by the governments. Some organisation should take a strong initiative to establish a Mountain Expert Group to provide technical backstopping to the Mountain Initiative.

## Plenary Discussion on 'Building a common global Mountain Agenda for communication'

Facilitator: Klas Sander, The World Bank

### Key issues discussed

- Brown cloud mitigation, brown carbon as a negotiating tool
- Leverage and credibility to go beyond the aspects of climate change
- Adaptation and mitigation are both important aspects for climate change
- Perspectives of local people should be sought to develop a clear picture of vulnerable sectors
- Need for intensive cooperation and exchange
- Need to learn from Western countries with a capacity and history of managing water
- Need for capacity building and training
- Joint submission of data from mountain countries and expert groups on traditional knowledge on climate change
- Accessing funding – Do we make full use of opportunities we have, resources available?
- Need to explore commonalities among the countries to bring the issue into the global agenda; develop clear and common priorities
- Share/document why mountains are not only important for mountain countries but also for non-mountainous countries
- Focus on local, practical efforts at community level for adaptation and mitigation
- Create inventory of needs in mountain countries/regions
- Metadata necessary for documentation
- Need for linking to other areas and priorities, stronger lobby needed from governments from mountain countries or other interested countries
- Retell the story of glaciers – with vulnerabilities in the water sector with clear quantification and data, and show what glacier melt means to the different sectors
- Need for synergistic approach to reality

### Working groups

Three working groups were formed, one to discuss financing the Mountain Agenda, a second for capacity building and knowledge sharing, and the third on networking strategies for the Mountain Initiative. Brief summaries of the discussions are presented below.

### Financing Mechanisms

#### Questions

1. What opportunities for mountain countries exist under the current climate change financing instruments?
2. Where do you see obstacles for accessing existing climate financing resources, notably with regard to the processes involved, and the governance structure of funds?
3. How are the finance mechanisms under adaptation, mitigation, REDD+ on the climate negotiations progressing and what is their scope?
4. In which areas (and sectors) and at which levels do you see the most immediate capacity building needs for a) accessing funds, and b) effective negotiations for developing suitable financing agreements at international level?
5. What is crucial for mountain countries for making a future climate financing architecture more responsive to their needs? How could the concerns of mountain countries best be brought forward in the UNFCCC negotiations on climate change financing and governance?

## Discussion outcome

1. Obstacles for mountain countries to access existing climate financing resources
  - There is no direct access to funds for sub-national entities; this may be because mountain vulnerabilities may not be top priority at national level.
  - Clean Development Mechanisms (CDMs) have capacity gaps; therefore the capacity of nationals working on CDMs should be enhanced first. National capacities are not enhanced if multi-lateral agencies take a lead on project implementation.
  - Difficulty in mobilising the co-financing.
  - Financing mechanisms for LDCs (e.g., LDCF) have long project cycles and that is an obstacle to accessing existing climate financing resources for mountain countries.
2. Areas (and sectors) with the most capacity building needs for a) accessing funds b) effective negotiations for developing suitable financing agreements
  - Market Based Mechanism: Clean Development Mechanisms (CDM) and Reducing Emissions from Deforestation and Forest Degradation (REDD) revenues can be used to adapt to climate change induced impacts.
  - Systems are needed to ensure judicious allocation of revenues from market-based mechanisms
  - Downside of CDM is its high transaction cost, therefore there is a strong need for international and public support for meeting these transaction costs.
  - There would be added flexibility and lower risk of increased complexity if the future CDMs are decentralised and a favourable approach is applied.
3. Concrete steps to be taken by mountain countries towards making the climate financing mechanisms more responsive.
  - Stress the understanding of mountains being for humanity – not only for the mountain people; they are important for all ecosystems in the world.
  - Professional advice is needed for tapping existing funding (e.g., ICIMOD can play a vital role), knowledge sharing about these funding opportunities, for example, through electronic newsletters (e-newsletters), which will help to make future climate funding architecture more responsive.
  - A mandatory advocacy for a mountain specific funding window is required within the new green funding mechanisms
  - Strategies for advocacy need to be developed to enhance and make existing and future mechanisms more responsive.

## Capacity building and knowledge sharing

### Questions

1. In which areas (and sectors) do you see the greatest knowledge gaps with regard to climate change impacts and adaptation strategies?
2. What are the capacity building needs sector wise and at different levels?
3. What type of international and regional institutions are best positioned to do work to (i) fill the existing knowledge gaps, (ii) assist countries to put the Mountain Agenda in the UNFCCC negotiations?
4. How can capacity be built at regional level to enhance transboundary/regional cooperation? Identify some of the institutions that can facilitate this?
5. What kinds of mechanisms are required to effectively communicate the emerging knowledge and lessons to policy makers, governments, UN organisations and donors while also pursuing climate response and sustainable development objectives?

## Discussion outcome

### 1. Areas and sectors and knowledge gaps

- Above timber /snowline: Meagre research/knowledge and quantification of high altitude data regarding glacier dynamics, alpine ecosystems, impact of tourism has created more gaps. Proper data monitoring systems on these aspects is crucial.
  - (i) Harmonisation and standardisation for data reliability and quality is equally important; there is a need for consolidating, refining and bringing together scattered research/ knowledge in these areas.
  - (ii) There is a need to impart training and build capacity of individuals and institutions for data gathering, quality, and reliability. It could be performed through coordination and networking. Above the timberline, there are limited meteorological stations to monitor/record the changes in the glacial systems – and climate change.
- Below timber/snow line: Climate change is not a new phenomenon. People have always been adapting using different indigenous and traditional knowledge and practices. The knowledge and practices should be documented for replication, where applicable. The intensity of impacts of climate change need to be documented for building resilience and appropriate responses.

There is an urgent need for developing regional models integrating above/below timberline information and knowledge. Knowledge about problems should also be shared so that the knowledge hubs could be approached to help with responses for coping with urgent situations. It is also necessary to develop/strengthen centres of excellence in the area of climate change. Exploring new areas such as dendrochronology could be explored for estimating climate change impact.

### 2. Capacity building needs sector wise and at different levels

Regional level: Capacity building on observing monitoring and sharing information on adaptation, mitigation, and technology transfer, and knowledge management is important. It should cover all relevant sectors, and be coordinated by research centres and universities.

National level: It is necessary to build the capacity of the nodal partners/centres of excellence and universities. Networking and data sharing (integration of different sectors) is crucial to exchange expertise. Capacity building pertinent to adaptation and resilience building and technology adaptation is necessary for building resilience to the vulnerabilities of climate change. More national research should be encouraged.

### 3. International and regional institutions best positioned to work to fill the knowledge gaps should assist countries to put the Mountain Agenda in the UNFCCC negotiations?

There are different specialised organisations/institutions working in this sector. Therefore, ICIMOD, Mountain Partnership, national/international strategic partners, GBPIHED, GCISC, national UNFCCC nodal partners and sub national partners, and universities should be approached to share knowledge/expertise. Regional partners (HUC and UCA), International centres (EVK2CNR) and national hydro-metrology agencies are best positioned to share knowledge/expertise in the area of global environmental change.

### 4. Areas/approaches to capacity building at regional level to enhance transboundary/regional cooperation

Capacity at regional level could be built through research on climate science especially on regional modelling. Other approaches include confidence building by sharing good practices and technologies, networking (cross cultivation of knowledge and expertise), regular and active sharing of information and knowledge and maintaining sensitivity, and developing regional cooperation frameworks. The different organisations and sectors mentioned above could facilitate capacity building.

### 5. Mechanisms required to effectively communicate the emerging knowledge

Environmental science is difficult to communicate (need to build capacity in all countries).

- Capacity of national institutions needs to be built; ICIMOD has developed the expertise, which can be shared. Science has to be linked to policy, and people and networking needs to be strengthened at all levels, including the media, for effectively communicating emerging knowledge and lessons to policy makers, governments, UN organisations, and donors.

- Universities need to be strengthened for both scientific research and communication.
- Public outreach agencies need to be created and integrated with environment institutions.
- Communication should target all stakeholders.
- Successful examples including climate resilient practices and technologies should be communicated to people.
- The Mountain Initiative should consolidate national efforts and communicate regionally.

### Networking Strategies for the Mountain initiative

- Needs a clear-cut agenda as we are working with both UNFCCC and Rio+ 20 frameworks
- Regional level meeting crucial for defining roles, structure, and agenda of the International Expert Group
- The International Expert Group should be based on existing institutions instead of creating new ones
- The UNFCCC focal points should be the Mountain Initiative focal point and be kept in the loop, but there can be more than one person assigned.

### Timeline and events

- International Expert Consultation Meeting 23-24 September 2010
  - A launching meeting to start the process
  - Conclusions will be the basis for regional and national discussions on the Mountain Initiative
- COP16, Cancun
  - Try to have a sideline meeting (regional meetings as well as technical)
  - Plan for one Regional Meeting in key regions
  - Develop a strategy for effective and impact-oriented intervention in COP17
  - Nepal to organise International Ministerial Meeting of the mountainous countries
- Ministerial Meeting March 2011
  - Countries present will be requested to endorse the Mountain Initiative
- Regional meetings
  - Regional meetings would be ideal for developing from the conclusions of this meeting
  - Identify training and capacity building needs
  - Conduct capacity building activities and technical training
- Rio + 20 Preparatory Meeting Switzerland September/October 2011
  - Plan for this meeting as Mountain Agenda will be important

### Plenary Discussion

Facilitator: Ms Lorena Santamaría Rojas

### Key issues discussed

- Need for a network of experts to bring together knowledge shared at this meeting.
- Capacity building of youth for long-term SMD and climate change related advocacy and negotiations.
- Good paper to be designed and developed as a framework for the climate change negotiations.
- Leverage funding where mountain countries are beneficiaries with their ecosystem services recognised.
- Emergence of mountain-centric funding.

## Session 4: Concluding session

Chair: Dr Dinesh Devkota, Honourable Member NPC, Nepal

Co-Chair: Dr Andreas Schild, Director General, ICIMOD

### Conclusions of the Consultation Meeting

Dr Madhav Karki, Deputy Director General, ICIMOD

The draft conclusion statement was presented in the plenary and finalised through a process of moderated discussions and incorporation of major comments and suggestions.

### International Expert Consultation Meeting: Mountain Initiative on Climate Change

Preparing a Roadmap for the Ministerial Conference of Mountain Countries and UNFCCC process

### Conclusion and Recommendations of the Experts on the Mountain Initiative on Climate Change

23 to 24 September 2010, ICIMOD

Recognising that there is an urgent need for the world's mountainous countries and countries with mountain ecosystems to reinforce the Mountain Agenda in response to global change into ongoing multilateral environmental negotiation processes, notably in the upcoming UNFCCC meetings and the Rio+20 conference, by developing a common vision, strategy, knowledge base, and approaches, an **International Expert Consultation Meeting on Mountain Initiative on Climate Change** was organised jointly by the Ministry of Environment, Government of Nepal and the International Centre for Integrated Mountain Development (ICIMOD) in Kathmandu on 23-24 September 2010.

The main purpose of the meeting was to start a process of global and regional consultation involving the climate change experts concerned for charting out a future roadmap for the Mountain Initiative (MI) with a long-term strategy reiterating the global mountain agenda in the UNFCCC and the Rio+20 processes and beyond. The Mountain Initiative was launched by the Government of Nepal in response to the call made by the Right Honourable Prime Minister of Nepal during the COP 15 summit asking all the mountain countries and stakeholders to come together and form a common platform to better advocate for mountain issues in climate change negotiations so as to ensure that mountain concerns get due attention in the climate change agreements and related decisions.

The meeting was attended by high-level policy and decision makers, national experts involved in the UNFCCC process, and representatives from academia, international organisations, and development partners. Experts came from Afghanistan, Bangladesh, Bhutan, Canada, China, Columbia, India, Italy, Kazakhstan, Lao PDR, Nepal, Pakistan, Peru, Tajikistan, and Switzerland. Experts from ICIMOD, Mountain Partnership Secretariat (FAO), World Bank, UNEP, UNDP, DFID, ADB, DANIDA, FINNIDA and others participated in the meeting. Observers also joined from academia, research centres, networks, and in their individual capacities.

The workshop was inaugurated by the Hon Minister of Environment of the Government of Nepal, Mr Thakur Prasad Sharma. Hon Dr Dinesh Devkota, Member of the National Planning Commission, participated in both opening and closing sessions. Dr Andreas Schild, DG ICIMOD, Dr RS Tolia, Uttarakhand, India; and Mr Klas Sanders, WB HQ gave keynote speeches. Two analytical papers specifically prepared as background documents for the Consultation on 1) 'Mountains of the World – Ecosystem Services in a Time of Global and Climate Change: Seizing Opportunities-Meeting Challenges', and 2) 'Funding Mechanisms, Instruments and Facilities for Mountain Systems' were presented by the authors. This was followed by the presentation of a synthesised paper on 'Key issues for the Mountain Initiative'.

The expert meeting wholeheartedly expressed happiness and pledged support for the Mountain Initiative launched by the Government of Nepal. They also appreciated the excellent technical inputs and support provided by ICIMOD.

The experts appreciated the fact that the meeting was conducted in a highly consultative, open, and participatory manner comprising two working group exercises and plenary discussions. After two days of intensive discussions on the agenda items, and having listened to the latest information on the impacts of climate change on the world's mountains, the experts came up with a set of recommendations to the proposed International Ministerial Meeting of Mountain Countries on

Climate Change, and also proposed that their conclusion be forwarded for sharing with the mountain country delegations participating in the future UNFCCC negotiations and Rio+20 meetings. The experts reinforced the following points as the basis for their common understanding.

- The critical roles played by the world's mountains should be recognised by the global community as they are a) water towers of the world, b) providers of critical ecosystem goods and services, c) harbingers of global climate change, d) repositories of critical biodiversity, and e) destinations for global travellers and those seeking adventure.
- The experts felt the need to fill the information and knowledge gaps by supporting generation of research-based data with intensification of mountain-specific research work in key areas on topics including climate variability, water availability, glacier hydrology, and other aspects of cryospheric changes, adaptation and mitigation measures, and the effects of black carbon in both the short and long term.
- The experts recognised that multiple factors mainly related to climate change are increasing the vulnerability of mountain people and ecosystems, and this requires urgent and immediate effective approaches to build the resilience and adaptive capacities of human and natural systems in mountain areas.
- Development of a long-term and good understanding of high mountain ecosystems and glacier hydrology and their socioeconomic implications will be critical to provide robust future water and environmental scenario, which are critical for downstream populations and global food security: this will require global investment in knowledge and capacity development as well as regional and global networking and sharing of research and development information and knowledge.
- Mountain ecosystems such as biodiversity, watersheds, forests, and pasturelands are bearing the brunt of rising temperature extreme events such as flash floods, wild fires, and landslides; and invasion by non-native species due to multiple global changes. These impacts have degraded the vital ecosystem services critical for supporting livelihoods for millions of people both upstream and downstream: the global community must take on the responsibility to help mountain countries take appropriate measures to better cope with and adapt to these vulnerabilities and risk factors by supporting a range of mountain-specific programmes, such as the implementation of national adaptation plans, and enhance these multiple ecosystem services for human survival.

**The International Expert Consultation Meeting agreed on the following conclusions.**

1. Commends and supports the Mountain Initiative of the Government of Nepal and recommends sharing the conclusions and recommendations of this International Expert Meeting in future forums including the proposed Ministerial Conference.
2. Establishment of a Contact Group based on the membership of the participating countries in this expert meeting to disseminate the conclusions of the meeting as well as to raise awareness of the key stakeholders and policy and decision makers in their respective countries and the UNFCCC COP meetings.
3. Establishment of a Technical Working Group comprised of Dr. Dinesh Devkota (Nepal), Mr Douglas McGuire (Mountain Partnership), Ms Laura Madalengoitia Ugarte (Peru), Ms Gulmira Sergazina (Kazakhstan), and Ms Lorena Santamaría Rojas (Columbia). Dr. R.S. Tolia, Mr John Drexhage, and Mr Gianluca Lentini (EvK2CNR) will be independent members; the Ministry of Environment, Nepal, and ICIMOD will be represented by Dr. Ganesh Raj Joshi, Secretary, and Dr. Madhav Karki, respectively. A draft of the Terms of Reference for the Technical Working Group will be developed and shared within a month of the finalisation of this document.
4. All the countries invited will be requested to nominate a Focal Institution and/or Focal Person for future communication for improved and effective coordination.
5. Advocacy activities, especially by improving the knowledge management and communication capacities of the participating countries, will be planned and implemented to promote the inclusion of a mountain-specific funding priority within the UNFCCC financing framework; this will require proactive and coordinated efforts at the COP-16 meeting and beyond; and in this Nepal and ICIMOD should lead and seek support from mountain countries and other stakeholders.
6. The conclusion of the Expert meeting will be used to plan and organise regional consultation meetings in major mountain regions in the year 2011 so as to prepare better for the ministerial-level meeting planned by the Govt. of Nepal in 2011: the Ministerial Meeting is expected to endorse a clear structure and roadmap for the Mountain Initiative.
7. The Meeting further opined that, while specifying the scope of the Mountain Agenda, it is important to give cognisance to the respective positions of countries in the UNFCCC negotiations so that the Mountain Initiative is in line with key national and regional positions.

8. Regarding the membership, the meeting recommends that mountainous countries as well as countries having mountain ecosystem priority from both the developed as well as the developing countries will be encouraged to join the Mountain Initiative.
9. In order to make the Mountain Initiative more effective and garner international support for it, the meeting set the objective of mobilising more countries, notably from Africa and Latin America, reflecting the lack of representation from Africa and presence of only two representatives from Latin America in this International Expert Consultation Meeting.
10. The Meeting highlighted the need for initiating knowledge development, capacity building, and communication-related activities in future under the Mountain Initiative in all regions.
11. The Experts also emphasised the need to launch more effective capacity building, training and advocacy-related activities, regionally and globally, using the recommendations of this Expert Group meeting so as to enable mountain countries to advocate for the inclusion of mountain-specific issues and funding priorities within the UNFCCC process starting from the preparatory meeting of the Parties in China and the COP-16 meeting in Cancun, Mexico.
12. The meeting also recommended that the Ministry of Environment, Nepal, prepare for the international ministerial conference by organising regional consultation meetings in different regions and building the capacities of mountain country teams, including that of the Mountain Initiative Secretariat at the Ministry of Education, in order to raise a coordinated and stronger voice at future international climate meetings, especially COP-16 in Cancun and beyond—including the Rio+20 preparatory meeting in Switzerland.

The Meeting acknowledged the significant contribution made by ICIMOD and other experts in the form of analytical and discussion papers prepared and presented by the Govt. of Nepal and ICIMOD. The meeting thanked the Govt. of Nepal and ICIMOD for their warm hospitality and for successfully and professionally organising the consultation meeting which has contributed immensely to highlighting the current status of mountain systems, especially in the context of climate change. The meeting also deeply appreciated and gave thanks for the financial support provided by InWEnt, Germany, to fund the costs of the consultation meeting.

## Reflections by regional representatives

### HKH: Mr Jawed Ali Khan, Director General, Ministry of Environment, Pakistan

This is an important initiative and we hope the Mountain Initiative will be able to increase mountain awareness (ecosystems and countries) at global level, especially in the context of the UNFCCC meetings including Rio+20. Continuation of this Initiative would be very useful as we have good representation of governments, I/NGOs, other interested communities, and donors. We very much appreciate the work of the Government of Nepal and ICIMOD in organising this important meeting and coordinating the process.

### Central Asia: Ms Gulmira Sergazina, Project Coordinator, Climate Change Coordination Centre, Kazakhstan

This is a very good initiative and we hope the MI will have a better future. We wish success to the Initiative and appreciate the preparatory work of the Government of Nepal and ICIMOD.

### Latin America: Laura Madalengoitia Ugarte, Asesora Dirección General de Medio Ambiente, Ministerio de Relaciones Exteriores, Peru

This is a very good first step in working towards sustainable mountain development, and bringing and making best use of international platforms in favour of mountains and people. This will help us to explore common issues and build a common understanding among participating countries and stakeholders, for which we are very interested and committed. We have a long way to go.

### Lao PDR: Mr Mone Nouansyong, Climate Change Office, Department of Environment, WREA, Lao PDR

This is a very useful start to work together.

## Closing Remarks

### Mr Ganesh Raj Joshi, Secretary/Government of Nepal

We are very happy to see the good start supporting the initiative of the Government of Nepal. We aim to work with all the stakeholders in harmony to secure the interest of mountain people, nationally, regionally, and globally. Formation of a technical group (Expert Group) at this consultative meeting is a very good step to coordinate mountain-related issues in future. We hope to see your active participation in future processes. The Ministerial Meeting of Mountainous Countries will be organised in March 2011.

### Dr Andreas Schild, Director General of ICIMOD

We need better and more inclusive understanding of the problems, but at the negotiating table we have to proceed as per our national interests and priorities. There is a big gap in terms of knowledge generation, documentation, and sharing of information about mountain ecosystems and how they are responding to new phenomena like climate change, and at the same time we face the challenge of raising awareness on mountain climate change and making it a priority issue in international negotiations. In this process, the alliance of countries with mountain interests (Mountain Initiative) would be very important: it can help in identifying common priority issues of the concerned parties and towards preparing a concrete proposal from the side of mountainous countries. We have to think of making the best use of COP16 in Cancun, COP17 in Cape Town and the Rio+20 meetings, among others.

This meeting should be taken as an opportunity to consolidate available information and initiate activities for future events. Formation of an ad-hoc technical group is a very important step, especially in the context of the Cancun meeting, where we need to work together to bring together more partners. Sub-regional consultations would be very critical where the role of global partners like the Mountain Partnership and other partners supporting our capacity development would be important. We hope to receive your support in future to move forward with this idea.

We thank the Government of Nepal, ICIMOD's regional member countries, and the many national and international partners who have trusted and supported us in organising this event.

## Final Remarks

### Dr Dinesh Devkota, Honourable Member NPC, Nepal

The meeting was a good learning process. Your deliberations have helped us to move this issue further. The conclusions and recommendations of this meeting will be instrumental for working towards defining actions for addressing the increased vulnerabilities in mountain areas. There are several questions that will have to be answered in future (e.g., How to enhance adaptive capacity? How to improve knowledge on climate change? How to develop adaptive measures? The role of the contact and expert groups would be instrumental. We have realised that there is huge gap in information and data generation and sharing. This meeting has set the tone for networking, knowledge exchange, exchange of experts and expertise, and building common views on key issues. I hope to see the contact and technical groups working on these focus points for moving ahead with clear positions in the future.



# Annexes

# Annex 1: Programme

International Expert Consultation Meeting: Mountain Initiative on Climate Change, 23 - 24 Sept 2010, Kathmandu

## Day 1: 23 September 2010 (Thursday)

Agenda	Time
Registration of participants	08:30 – 09:00
<b>SESSION 1: Opening</b>	
CHAIR : Dr Dinesh Devkota, Hon'ble Member, National Planning Commission	
Welcome Remarks Dr Andreas Schild, Director General, ICIMOD (Release of publication and unveiling of meeting banner jointly by the Hon. Minister of Environment, Govt. of Nepal and the DG, ICIMOD)	09:00 – 09:10
Inauguration and Opening Speech by Chief Guest Hon'ble Minister Mr Thakur P. Sharma, Ministry of Environment, Government of Nepal	09:10 – 09:25
Presentation on concept of and progress made to date on the Mountain Initiative of the Government of Nepal Dr Ganesh R Joshi, Secretary, Ministry of Environment (MoE), Nepal	09:25 – 09:50
Introduction to the workshop objectives, structure, and process Dr Bhaskar Karky, ICIMOD	09:50 – 10:00
Remarks and expectations by the Chair Dr Dinesh Devkota, Hon'ble Member, National Planning Commission, Nepal	10:10 – 10:20
Introduction of participants Self introduction by participants	10:20-10:40
Group photo/Coffee break	10:40-11:10
<b>SESSION 2: Highlighting Global and Regional Issues and Framework Condition</b>	
CHAIR: Laura Madalengoitia Ugarte, Leader of the Latin American Delegation	
<b>Key Note Speech 1:</b> Rationale for discussing the world's mountains Dr Andreas Schild, Director General, ICIMOD	11:10 – 11:30
<b>Key Note Speech 2:</b> Hon'ble Dr R. S. Tolia, Government of Uttarakhand, India	11:30 – 11:50
<b>Key Note Speech 3:</b> Contemporary issues in the mountains and adaptation challenges to global changes Mr Klas Sander, World Bank/USA	11:50 – 12:10
Presentation of the framework paper for the Mountain Initiative 'Mountains of the world: Ecosystem services in a time of global and climate change' Mr Batu Uprety, Joint Secretary, Government of Nepal	12:10 – 12:30
Plenary discussion on three keynote speeches and Mountain Initiative Framework Paper Moderator: Dr LMS Palni	12:30 – 12:45
Lunch	12:45 – 13:30
Presentation on funding instruments, mechanisms, and opportunities: how to make them more supportive to mountain ecosystems Ms Anna Bruederle, Consultant	13:35 – 13:55
Presentation on key issues for Mountains Dr Madhav Karki, Deputy Director General, ICIMOD	13:55 – 14:10
Panel discussions on the funding opportunities and key issues for the Mountain Initiative Panellists: Doug McGuire (Chair); Jawed Ali Khan; Laura Madalengoitia Ugarte, John Drexhage, Anna Bruederle, Madhav Karki	14:10 – 15:25
Working Group discussions on bringing regional perspectives to a common global agenda Latin America and Africa and international representatives (Rapporteurs: Bhaskar Karky and Aneeta Gauchan) Asia (HKH region) (Rapporteurs: Madhav Karki and Tek Mahat) Asia Pacific (Central Asia, and SE Asia and European and other global (international) partners and institutional partners) (Rapporteurs: Anna Bruederle and Seema Karki)	15:25 – 17:25

**Day 2: 24 September 2010 (Friday)****SESSION 3: Towards a global Mountain Agenda**

CHAIR : Central Asia

Plenary presentation of group outputs (3 presentations)	09:00 – 09:45
Plenary Discussion Moderator: Klas Sander, World Bank/USA Building a common global mountain agenda for global communication	09:45 – 10:30
Working Groups on key thematic topics: group work and discussion Financing of Mountain Agenda (Rapporteurs : Anna Bruederle and Seema Karki) Capacity building and Knowledge Sharing (Rapporteurs: Madhav Karki and Aneeta Gauchan) Networking Strategies for Mountain Initiative (Rapporteurs: Bhaskar Karki and Tek Mahat)	10:30 – 12:30
Lunch	12:30 – 13:30
Plenary presentation of group outputs (three presentations)	13:30 – 14:30
Plenary Discussion Moderator: Ms Lorena Santamaría Rojas	14:30 – 14:55
Coffee Break	14:55 – 15:15

**SESSION 4: Concluding Session**

CHAIR: Dr Dinesh Devkota, Hon. Member NPC, Nepal; CO-CHAIR: Dr Andreas Schild, Director General, ICIMOD

Presentation of the conclusions of the Consultation Meeting Dr Madhav Karki, Deputy Director General, ICIMOD	15:15 – 15:45
Brief Remarks	
Reflections by Regional Representatives – HKH, Central Asia, Africa, Latin America	15:45 – 16:30
Closing Remarks by DGF/WB; MP	16:30 – 16:40
Closing Remarks by Mr Ganesh Raj Joshi, Secretary/Government of Nepal	16:40 – 16:50
Closing Remarks by Dr Andreas Schild, Director General of ICIMOD	16:50 – 17:00
Final Remarks by Dr Dinesh Devkota, Hon. Member NPC, Nepal	17:00 – 17:15

## Annex 2: List of Participants

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# About ICIMOD

The International Centre for Integrated Mountain Development, ICIMOD, is a regional knowledge development and learning centre serving the eight regional member countries of the Hindu Kush-Himalayas – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan – and based in Kathmandu, Nepal. Globalisation and climate change have an increasing influence on the stability of fragile mountain ecosystems and the livelihoods of mountain people. ICIMOD aims to assist mountain people to understand these changes, adapt to them, and make the most of new opportunities, while addressing upstream-downstream issues. We support regional transboundary programmes through partnership with regional partner institutions, facilitate the exchange of experience, and serve as a regional knowledge hub. We strengthen networking among regional and global centres of excellence. Overall, we are working to develop an economically and environmentally sound mountain ecosystem to improve the living standards of mountain populations and to sustain vital ecosystem services for the billions of people living downstream – now, and for the future.



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