

PROCEEDINGS OF THE

# Regional editors' meet and launch of the Hindu Kush Himalaya Assessment

Mountains, Climate Change, Sustainability, and People

4 February 2019 Kathmandu, Nepal



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## **Executive summary**

### Launch of the Hindu Kush Himalaya **Assessment Report**

The Hindu Kush Himalaya Assessment: Mountains, Climate Change, Sustainability and People, published by Springer Nature, is a first-of-its-kind comprehensive assessment report of the HKH region. It took more than five years in its making and involved over 350 scientists and researchers from 22 countries and 185 organizations within the region and beyond. The report was launched by ICIMOD representatives and the chapter authors.

This assessment will significantly contribute to furthering the knowledge from and about the HKH in the global climate discourse and fill the knowledge and information gaps about the impacts and realities of climate change in the HKH. The report is also an important resource for policymakers and governments to gain better information that can aid their decision-making and planning processes.

### Regional editors' meet

The regional editors' meet brought together editors, senior journalists, and other members of the media working within the region. The broader aim of this meeting was to collectively deliberate on the role of journalism and the media in reaching out to readers and viewers about environmental awareness and

other related issues, especially those which have been highlighted in the HKH Assessment Report. The meeting also served as a platform for the media to directly interact with the scientists, lead authors, and others who were involved in the preparation of the assessment report and the research that supported it.

### Relevant resources

- Press release Landmark study: Two-degree temperature rise could melt half of glaciers in Hindu Kush Himalaya region, destabilizing Asia's rivers
- The HKH Assessment Report
- Summary of the HKH Assessment Report
- Chapter briefs from the HKH Assessment Report
- Event photographs
- Explainer video on HIMAP and the HKH **Assessment Report**

The event was attended by over 70 participants including representatives from around 15 media houses from the region and beyond. The launch of the report received tremendous media attention (including from The Guardian, The New York Times, Bloomberg, CNN, Reuters, and Al Jazeera). The full list of the media coverage is available here.

As of December 2020, there have been over 650,000 downloads of this report from the Springer website, and over 7,000 downloads from HimalDoc, the ICIMOD online repository.

## **Introduction and** background

The Hindu Kush Himalayan Monitoring and Assessment Programme (HIMAP) is a long-term, integrated science-policy initiative coordinated by the International Centre for Integrated Mountain Development (ICIMOD) that aims to promote enabling policies, sustainable solutions, and a more robust regional cooperation in the Hindu Kush Himalayan (HKH) region to sustain mountains, environments, and livelihoods by:

- Assessing the current state of knowledge of the HKH region through comprehensive thematic and subregional assessments, special reports, and topical outlooks;
- Increasing the understanding about the various drivers of change and their impacts;
- Developing evidence-based policy solutions and recommendations; and
- Engaging decision makers across sectors and institutions through a series of HKH Science-Policy Forums.

The HKH region is one of the greatest mountain systems in the world, encompassing an area of over 4.3 million km<sup>2</sup>. Outside of the North and South Poles, the region contains the largest area of permanent ice cover in the world, which is why it is sometimes

referred to as the Third Pole. It is the source of 10 major river systems and contains all or parts of four global biodiversity spots, 330 important bird and biodiversity areas, and hundreds of mountain peaks over 6,000 masl. The HKH provides ecosystem services that directly sustain the livelihoods of 240 million people living in the hills and mountains.

In 2007, the Intergovernmental Panel on Climate Change (IPCC) Assessment Report-4 announced that climate change will be the most prominent force of global change in the modern era and that the HKH region is seen as a "data gap" area, lacking consistent long-term monitoring. The report calls for national, regional, and global attention towards filling this data gap. Unfortunately, not much progress has been reported in IPCC 2014 AR-5 on the HKH region in this regard. While initial progress has been made by universities, NGOs, and science organizations in the region, in assembling and consolidating existing data, the information remains too fragmented and incomplete to enable any meaningful conclusions about trends and scenarios. The need for an evidence-based assessment which brings together hundreds of scientists and policy experts persists. A comprehensive assessment could greatly assist in addressing threats, acting on opportunities, and scaling cutting-edge approaches. At the same time, the HKH region could learn from the success of the Arctic Monitoring and Assessment Programme (AMAP), a regularized system of monitoring which can generate powerful data about the key trends and scenarios in a particular region.

#### **SECTION 1**

## **Introduction to ICIMOD** and the Hindu **Kush Himalaya**

The event kicked off with a introductory session on ICIMOD and the HKH region. ICIMOD's Director General, David Molden, and the Deputy Director General, Eklabya Sharma, provided some insights into the work of ICIMOD in the region. The session was faciliated by Laurie Vasily, Head of the Knowledge Management and Communication unit at ICIMOD.

The key messages from the deliberations were:

- The HKH region covers about 3,500 km across all or part of eight countries, from Afghanistan in the west to Myanmar in the east.
- It is the source of 10 large Asian river systems the Amu Darya, Indus, Ganges, Brahmaputra (Yarlungtsanpo), Irrawaddy, Salween (Nu), Mekong (Lancang), Yangtse (Jinsha), Yellow River (Huanghe), and Tarim (Dayan) - that provide water and ecosystem services, and also livelihoods to a population of around 240 million people.
- The basins of these rivers provide water to 1.9 billion people, a fourth of the world's population.
- While the HKH basins support some of the world's most populated areas, the decisions about mountain resources are often made outside of the mountains.
- The HKH region is rich in diversity, with over one thousand living languages, and hosting four out of the 36 Global Biodiversity Hotspots.
- The mountains support high levels of agricultural diversity.
- Four out of the eight countries of the HKH are in the category of Least Developed Countries.
- Working across borders on knowledge for development helps in regional cooperation, which leads to better developmental outcomes.
- What happens in the HKH mountains affects one-fourth of humanity.

David Molden and Eklabya Sharma also provided an introduction on ICIMOD's mission to enable sustainable and resilient mountain development for improved and equitable livelihoods through knowledge and regional cooperation. ICIMOD's activities are organized in a matrix structure, with six regional programmes utilizing competencies from six core thematic areas: Livelihoods; Ecosystem Services; Water and Air; Geospatial Solutions; Gender; and Knowledge Management and Communication. ICIMOD strives to link science, policy, and practice in addition to balancing knowledge generation and sharing.

The introductory presentation was followed by a brief discussion amongst the participants and the presenters. The key deliberations included:

- The current potential of the hydropower that is available to the region is 500 GW, but access to all of it at once is not possible. It is a question for all the HKH and outside communities to consider how best to benefit out of this huge potential, while addressing environmental concerns.
- Despite the huge potential of renewable energy in the HKH, there is a huge energy poverty. The potential can be tapped only if the approprite infrastructures are developed in a sustainable way.
- The HKH Assessment Report is a review of literature. It is an expert judgement on how confident we are about the aspect of science in the region. Nearly every chapter has groundbreaking findings simply because it gets everything together. One chapter, for example, has 700 references. This report puts together previously scattered information on the Himalayan glaciers. The chapter on cryosphere gives us a comprehensive and consolidated picture of all that's happening.
- This is the first time that we have the HKH level information at one place with confidence. Information is available perhaps at the basin level. The report has addressed questions like how natural capital affects people's livelihood in the mountains and what it means to people downstream.

## **Launch of the HKH Assessment Report**

The formal launch of the report was preceded by the presentation of an explainer video on HIMAP and the HKH Assessment Report. In the presence of the authors, the HKH Assessment Report was released by David Molden and Eklabya Sharma from ICIMOD.

#### **SECTION 2**

## **Key findings of the HKH Assessment** Report

Philippus Wester, Regional Programme Manager of the Mountain Knowledge and Action Networks (MKAN) programme at ICIMOD and Coordinator of **HIMAP**, gave a briefing about HIMAP and also shared the key findings of the HKH Assessment Report. The session was facilitated by Eklabya Sharma.

All through HIMAP's first assessment process, the contributions came from over 350 scientists and researchers, including 210 authors (30 per cent of whom where women and 80 per cent from the HKH region), 125 external reviewers, and 20 review editors.

Four different "write shops" were carried out in the years 2016 and 2017 in order to consolidate the contents of the 16-chapter report.

The report was published by Springer Nature as a fully open access document in early 2019.

## **Key findings**

- Even 1.5°C is too hot for the HKH region.
- The HKH will be warmer than the global mean temperature and it will warm more rapidly at higher elevations.
- In a 1.5°C world, the glaciers in the HKH will lose 36 per cent of their volume by the year 2100.
- A 2°C world implies a regional warming of around 2.7°C in the HKH and a 49% reduction in glacier ice volume by 2100. Under current emission trends the glaciers will lose 64% of their ice volume by 2100.
- The snow-covered areas and snow volumes will decrease and snow-line elevations will rise.
- The snowmelt-induced run-off peak will be stronger and occur earlier in the year.
- The region will not run out of water but there will be problems for those living closer to the glaciers.

- Climate change is expected to drive consistent increases in the total run-off of the Indus, Ganges, and Brahmaputra.
- Climate change is also likely to affect groundwater, especially the springs in the midhills of the HKH.
- The communities dependent on glaciers and snowmelt for their water are feeling adverse impacts.
- More than one billion people are at risk of exposure to the increasing frequency and intensity of natural hazards (such as floods, droughts, landslides, and glacial lake outburst floods).
- Women are more susceptible to natural disasters then men.
- A large part of the population in the HKH is exposed to air pollution levels much higher than WHO recommendations.
- Air pollutants originating in and near the HKH amplify climate change.

Wester also presented some of the initiatives that the HKH region can take to mitigate the impacts of climate change:

- More long-term hydro-meteorological monitoring in the higher elevations of the HKH is needed.
- The implementation of global climate agreements is crucially important to the people of the HKH.
- The promotion of effective regional and local conservation measures and disaster management is a must.
- Proactive HKH-wide cooperation, open data sharing, and conflict management are issues that need to be addressed.
- Climate change adaptation policies and practices must intensify in the HKH - and become transformative.
- The institutional capacity of adaptation measures needs to be urgently enhanced so that it fits the purpose at each level of governance.
- Policy and practice should focus more on the links among climate change adaptation, disaster risk reduction, and the Sustainable Development Goals (SDGs).

### **Six Urgent Actions for the HKH**

Wester also presented six urgent actions needed for the HKH region; these form the core of the HKH Call to Action:

- 1. Cooperate at all levels across the HKH region for sustainable and mutual benefits.
- 2. Recognize and prioritize the uniqueness of the HKH mountain people.
- 3. Concerted action is urgently needed to keep global warming at 1.5°C by 2100.
- 4. Take accelerated actions to achieve the SDGs and the nine Mountain Priorities.
- 5. Enhance ecosystem resilience; halt biodiversity loss and land degradation.
- 6. Share regional data and information and ensure cooperation in the areas of science and other spheres of knowledge.

# Tour of the HKH Assessment chapter posters

This session included a tour of posters providing a quick overview of the HKH Assessment Report chapters. In-depth interactions were held on each of the 16 chapters with the respective coordinating lead authors and the participants. The summaries of all the chapters are available here.

#### **SECTION 3**

## Authors' panel: Climate change, cryosphere, air pollution, and disaster risk reduction

The session included brief presentations on the key messages from the chapters of the HKH Assessment Report by the coordinating lead authors – Arun B. Shrestha, Tobias Bolch, Arnico Panday, and Mandira Shrestha; this was followed by in-depth questions and discussions with media. The session was facilitated by David Molden.

The key messages from the presentations were:

- 1. Arun Bhakta Shrestha (ICIMOD): Regional warming in terms of the rate of change in the climate of the HKH is projected to be 2.2–3.3 °C for RCP 4.5 and 4.2–6.5°C for RCP 8.5. This is an area of urgent concern. In the future, even if global warming is kept at 1.5°C, the warming in the HKH region will likely be at least 0.3°C higher, and in the north-west Himalayas and the Karakoram at least 0.7°C higher.
- 2. Tobias Bolch (University of Zurich): Our work deals with glaciers, permafrost, river and lake ice, and snow. The snow cover in the region has been found to be both increasing and decreasing. There's more evidence of decreasing snow cover in the eastern Himalayas, whereas it seems to be increasing in the western Himalayas. The glacier mass has decreased - this needs to be understood, especially in the context of the eastern Himalayas. The glacier surface loss is almost 40 per cent per year in the eastern Himalayas. There is clear evidence that the permafrost temperature has increased. There is also evidence that river and lake ice will decline; the impact of this will be that the run-off will increase in the large basins.
- 3. Mandira Shrestha (ICIMOD): We have observed the "cascading nature" of disasters: earthquakes leading to landslides which impound the river hence causing floods. A standardization of methods and techniques is required as far as risk assessment is concerned.
- 4. Arnico Panday (ICIMOD): The HKH no longer has pristine air quality. The black carbon and dust settling on the high mountains accelerates melting. There has been a change in the heating and cooling patterns, and when and how much rainfall the region gets, also attributable to air pollution.

# Discussion amongst the participants and the presenters

The session concluded with a brief discussion amongst the participants and the presenters. The key deliberations included:

• In order to take this assessment forward to gain political buy-in from the regional member countries, ICIMOD's strategy would be to carry out science–policy dialogues in each member country of ICIMOD. Discussions styled around the model of the Arctic Council could be an

effective approach. It's important for ICIMOD to not stop here but to get the message out by organizing a similar regional meeting for HIMAP, thereby influencing actions and getting a buy-in from the policymakers. The HKH Call to Action will address the issue more elaborately.

- There are several examples of how ICIMOD is connecting the policymakers with the findings of this report. For instance, ICIMOD used its knowledge to provide inputs to the Gilgit-Baltistan Disaster Management Authority in order to prepare the latter's district disaster management plan.
- The conclusion from the IPCC report and the entire HKH assessment exercise is that the recent warming phenomena is largely anthropogenic.
- This assessment of the status of our knowledge has been built from individual puzzle pieces of finding the relevant data gaps and filling them up with the data generated from this research.
- Climate change is be both regional and global. But the solutions to adapt to climate change are mostly local. There is a need to bring the two together.
- The chapter on climate change looks into the kind of impacts it has had on the region. The national inventories were prepared based on the emission sources of each country. In the case of regions with mountainous countries and nonmountainous ones, it is difficult to segregate the emission levels and their impacts in terms of each country.
- The sources of air pollution in most countries are more than one. The assessment presents the contribution of each country. It is observed that the mountain countries are the least emitters of greenhouse gases (GHGs).
- Most countries have national inventories that tell them about the rate of emissions. In most cases, the emissions from the mountain countries are lower.
- Even if we manage to stabilize the temperature at 1.5-2°C before the end of the century, the spike in temperature will be higher in the mountains.
- Understanding the causes will help us to determine better how to address them. Data and data sharing are both essential. Data models can be used, but more data is required. If we look at the disaster risk map, the Indus Basin is a large orange area, which means that glacier and snowmelt contribute highly to this basin.

The western glaciers are melting the least. In the large and heterogeneous Indus Basin, the glaciers are rapidly advancing and can block rivers. In the case of the Lahaul and Spiti rivers, they have reported the highest loss of glacier mass. This is the cause of several hazards, including the short-term formation of glacial lakes. Receding glaciers also cause instability.

- More data is needed on the rural areas in the plains and the mountains. The nature and extent of the impacts have to be studied immediately and more thoroughly. If proper measures are undertaken, South Asia will have blue skies in the next decade.
- There is a need to know more about precipitation in High Mountain Asia (HMA). Right now, most of the data concerns the low elevations. We also need to understand the contribution of snowmelt to the variability in precipitation in the HMA. More hydrological measurements need to be carried out for better models and prediction mechanisms.
- Enough scientific knowledge is available to enable both present and future actions.
- We have been working to engage with decision makers in a better way. For example, a recent meeting on the Koshi Disaster Risk Reduction Hub brought together multiple stakeholders, including policy-level delegates. As a direct outcome of this meeting, the Secretary of the Ministry of Home Affairs invited ICIMOD representatives to discuss about ICIMOD's activities in the area of disaster risk reduction across the HKH.

### **SECTION 4**

## Parallel authors' panel

### PARALLEL PANEL A

### Poverty, gender, and migration

This session saw brief presentations on the key messages from the chapters of the HKH Assessment Report on poverty, gender and migration by the coordinating lead authors - Purnamita Dasgupta, Chanda Gurung Goodrich, and Ram B. Bhagat; this was followed by in-depth questions and discussions with the media representatives. The session was facilitated by Arabinda Mishra.

The key messages from the presentations were:

1. Purnamita Dasgupta (Institute of Economic Growth, University of Delhi, India): Poverty has the potential to continue to pose a challenge beyond the year 2030. The fragility and remoteness of the mountain region is such that it can continue to push people back into poverty. There is higher incidence of poverty in the mountains as compared to the national average. We need to formulate a poverty reduction strategy which is HKH specific. There is also a need to look at the conditions of poverty in the mountains differently.

The cost of living is definitely higher in the mountains. There is a case for benchmarking poverty at a higher level in the hills and mountains. There is also a higher cost involved in meeting public service provisioning. If you benchmark poverty at a higher level, you also start thinking about resource allocation and the particular needs for the hills and mountains. These should influence policy.

We feel very strongly that we need to look at poverty in multidimensional ways in order to eradicate it.

2. Ram Babu Bhagat (International Institute for Population Sciences, India): There is no doubt that the number of migrants are increasing. Migration is an important livelihood strategy and contributes to reduction in poverty and climate change adaptation. But migration does not seem to be integrated with development. Even the word "migrant" does not feature in policy documents. Migrant labour is not being protected.

In India, according to an Act concerning building and other construction activities, every building that is constructed has a cess (a tax or a levy) attached to it. But in the absence of labour registration, the benefit of the cess doesn't reach the labour class.

There are multiple forms of migration – internal, international, and seasonal. The cost of internal migration is rather high; but this aspect is not considered because it is an informal process. It also contributes to urbanization. In the case of seasonal migration, social protection is lackingpeople are unable to access institutions and rights. They lose out on social security. When migration is not integrated with development, it has a lack of visibility in several platforms.

- The 2011 census data of India on migration has not yet come out. These are policy gaps that need to be filled; and if these are filled, it will reduce both poverty and inequality.
- 3. Chanda Gurung Goodrich (ICIMOD): Women face multiple forms of oppression; aspects such as caste, class, ethnicity, age, and marital status intersect with gender. In general, women face layers of exclusion, but these are overlooked in policy. Migration has been a historical phenomenon in the mountains where it's usually the men who migrate. So, women are left with shouldering a lot of responsibilities - they do a lot of productive and reproductive work. But policies do not take this into consideration; there is a policy vacuum when it comes to valuing women's productive capacities.

### Discussion amongst the participants and the presenters

The session concluded with a brief discussion amongst the participants and the presenters. The key deliberations included:

- Due to lack of data on other kinds of migration, including those that are politically induced or forced, the report has only considered economic or labour migration. A large number of internally displaced persons are also subjected to forced migration. When countries start to see their population as resources, and not as castes or ethnicities, that's when these matters will get depoliticized.
- Communities, by themselves, do not degrade their own surroundings. If we manage to address poverty in a way that is contextualized, we would probably see proper benefits, such as incomeearning opportunities that are in consonance with the context.
- The framing of gender as just "women" or as "all women are the same" is problematic. Social institutions and mindsets need to keep pace with changing roles.
- People will constantly move in search of a better life. It is difficult to pin down chronic poverty in a geospatial sense. Given the types of climate threats that the region is partly facing, what is more likely is that the duration and pattern of spells of poverty, and those moving in and out of poverty - people bouncing back - will change. There is a shift in the pattern of what is chronic and what is transient -

- even if some are able to go above a notional idea of the poverty line, some shock could push them back. The data from the National Sample Survey (NSS) in India shows that the number of those who are transiently poor is growing higher.
- No country has been collecting data based on biophysical characteristics. Policies have to be tailored to meet region-specific needs. We need programmes that take into account the specifics of a particular terrain and its geography.

#### PARALLEL PANEL B

## Water, energy, food security, and biodiversity

The session consisted of brief presentations on the key messages from the chapters of the HKH Assessment Report by the coordinating lead authors - Philippus Wester, Bikash Sharma, Shobhakar Dhakal, Golam Rasul, and Nakul Chettri; this was followed by in-depth questions and discussions with the media representatives.

The key messages from the presentations were:

- 1. Philippus Wester (ICIMOD): Around two billion people depend on the water resources of the mountains of the HKH region. Glacier and snowmelt are important components of streamflow in the region. Groundwater, from the springs in the mid-hills of the HKH, is also an important contributor to the river base flow. Water availability, use, and its governance in the HKH are in a constant state of flux. The ecosystem flows in the Himalayan rivers and streams are subject to flow regimes that are heavily impacted by human water uses.
- 2. Shobhakar Dhakal (Asian Institute of Technology, Thailand): There is a need to have universal access to energy as it is directly linked with the livelihoods of people. Energy is a core resource in the development of the HKH. At present, there is a huge disparity between resource potential and access to energy. The mountains have not been accorded priority in the national agenda. Here, decentralization and innovations can play a key role. There is also a need to develop mountain-specific policies by identifying data and information gaps, building a knowledge base, and setting targets.
- 3. Nakul Chettri (ICIMOD): The HKH region has gone through quite dramatic anthropogenic changes which have been affecting its

- ecosystem, the state of its species, and the value system. Recent ecosystem services science takes into consideration the social, cultural, ecological, and economic values, as well as their tradeoffs. There is a need to upscale and outscale the biodiversity and development synergy.
- 4. Golam Rasul (ICIMOD): In terms of nutritional security, while there has been increased food production, nutrition is still a severe challenge, especially in the mountain areas. The problem lies in the undermining of the traditional mountain food systems which are all being replaced by commodities such as rice, wheat, and maize.

### **Discussion amongst the participants** and the presenters

The session concluded with a brief discussion amongst the participants and the presenters. The key deliberations included:

- In the Kangchenjunga Landscape, connectivity corridors are being set up as tigers have been sighted in the higher elevations. Owing to climate change, certain species are going upwards and we are trying to advocate supporting these corridors by niche modelling and identifying land in terms of ownership.
- There is no precise data on investment; however, Nepal is one of the top ten countries in terms of investment of financial resources; some examples are cited in this chapter. Besides, chapter 16 which deals with environmental governance takes up these issues and recommends future action on transboundary cooperation.
- ICIMOD is lobbying strongly for investment in the mountain areas as there are many opportunities there for ecosystem services. There is also a need to consider the opportunity cost of conservation.
- ICIMOD has been instrumental in piloting various micro-hydro projects. And these projects have helped reduce the energy challenges by 60 per cent in the rangelands. ICIMOD also recognizes that energy is a cross-cutting component and that the energy sector has often been neglected.
- In order to reach out more effectively to the policymakers in the region, we have started drafting the "HKH Call to Action" based on this

assessment report; also underway is the drafting of nine mountain priorities that are consistent with the SDGs; furthermore, six urgent actions that need to be taken have also been identified.

- ICIMOD, through its HIMAP programme, is generating knowledge for regional cooperation. It is also alerting the national actors about the pitfalls of non-cooperation. ICIMOD acts as a regional platform for bilateral energy cooperation and offers advice on how countries can benefit from such partnerships.
- The challenge is in translating such assessments into policy. We can overcome this by citing issues such as clean energy and financing which are aspects that resonate with the policymakers, thereby convincing them of the need to make appropriate interventions. In the regional context, it is highly important that high-level interactions take place.
- Globally, a vast chunk of people live in the mountain areas; so, it is important to bring their voices together in order to influence global policymaking. The mountains also have an aesthetic value which too can help in the exertion of influence. The countries outside the HKH region can also play an important role in transboundary cooperation, especially in the sphere of water resources.
- In terms of global climate change, the HKH region has only a minimal role as emissions here are on the lower side, barring those from China and India.
- New areas of interest in conservation are emerging, such as the fauna in the HKH region; of particular interest are animals like the snow leopard, yak, and the red panda.
- As the cryosphere and the seas are connected, there's a link between the glacier melt in the HKH and the rise in sea level.

#### **SECTION 5**

## **Authors' panel: Scenarios, adaptation** to climate change, environmental governance, and the **HKH Call to Action**

The session saw brief presentations by the coordinating lead authors - Joyashree Roy, Rucha Ghate, Arabinda Mishra, and Eklabya Sharma - on the key messages from the chapters of the HKH Assessment Report; this was followed by in-depth questions and discussions with the media representatives.

The key messages from the presentations were:

- 1. Joyashree Roy (Jadavpur University): This is a precarious moment for the HKH region. Environmentally, socially, and economically, there is no saying what's in store for the HKH. Between now and the year 2080, the HKH may go downhill, or the region may continue to do business as usual and muddle through, or it may advance towards prosperity. Evidence-based actions to reduce disaster risk, to mitigate and adapt to climate change, and to adopt good governance practices are central to ensuring prosperity in the HKH by 2080, as well as collaboration among state and non-state actors.
- 2. Rucha Ghate (ICIMOD): There are only a few regional policies and processes for environmental governance in the HKH most are national or subnational. While environmental governance reforms in the HKH emphasize decentralization, often creating positive local outcomes, these local initiatives have not yet gained adequate support from the subnational and national governance systems. Governments and environmental institutions in the HKH need to act now to strengthen the interface among science, policy, and practice. The implementation process of relevant environmental policies in the HKH countries will improve only if national governments recognize the multisectoral and cross-scalar nature of environmental governance.

- 3. Arabinda Mishra (ICIMOD): Adaptation to climate change is becoming an increasingly urgent issue for the HKH. For the policymakers, this poses a complex challenge. Currently, the adaptation responses of governments in the HKH are mostly incremental in nature and not yet well integrated with development plans and programmes. In spite of these challenges, opportunities do exist for a scaled-up, inclusive, and more comprehensive climate change adaptation response mechanism. Climate change adaptation policies and practices must intensify in the HKH - and must become transformative. The HKH countries and institutions must work together to build mechanisms and fora to debate and negotiate key challenges, such as in data sharing, and to incentivize regional cooperation and cross-learning.
- 4. Eklabya Sharma (ICIMOD): The HKH Assessment Report and the resultant HKH Call to Action reflect five years of research, review, and analysis. The report was drafted in response to requests from the governments in the region thereby meeting a demand for a comprehensive assessment of the region's mountains, environments, and livelihoods, as well as of their status and future. The HKH Call to Action has been developed as a road map based on the key findings of the HKH Assessment Report and it articulates six urgent actions.

## **Discussion amongst the participants** and the presenters

The session concluded with a brief discussion amongst the participants and the presenters. The key deliberations included:

- Resource degradation leads to conflict at regional and local scales. The erosion of traditional institutions doesn't necessarily have to do with climate change.
- There is a need to look at traditional institutions and knowledge as something that needs to be analysed and brought into relevance.
- HIMAP has been engaging with AMAP via discussions, consultations, and knowledge sharing. The Arctic Council is a good model - but whether it is accepted here or not is a decision to be taken in the future. However, the plan definitely is to bring governments together in science and policy forums. We're also studying the Alpine Convention models.

- It is highly unlikely that international finance will ever be sufficient to address the vulnerabilities of the HKH. There is a lot that can be learnt from the region and extended in scope. Bangladesh has been a leader in mobilizing internal funds. India and Bhutan can mobilize domestic resources. These processes can be further strengthened if we rope in partners for technical and resource knowledge. The question is not whether the global community should address this issue - it is "when' they will address it.
- The key areas of scientific collaboration include regional data/information sharing, and science and knowledge cooperation. There is a need to foster cooperation and capacity building in data generation. Statistical agencies need capacity building to get them ready for modern issues. There is a need to proactively promote open data sharing and public goods and services. We will be promoting the use of the Regional Database System of ICIMOD.
- People work well when they have a common goal to work towards. Our common goal is to protect the HKH environment, much in the same fashion as the Arctic Council. The other areas of transboundary cooperation could be in energy and flood management.

### SECTION 6

## **In-depth interactions** and interviews with lead authors by media representatives

This session saw in-depth interactions and interviews with the lead authors by the media representatives.

Plenary discussion on the HKH Assessment Report

Kunda Dixit, Chief Editor of the Nepali Times, carried out an interactive discussion on the HKH Assessment Report with the media representatives and authors.

The key messages from his deliberations and discussions with the media representatives were:

Linking the environmental processes to political discourses would be a good strategy to make sure that the media gives priority to environment stories.

- Science communication is rather important in a region where there is mistrust. The media could be an important facilitator in initiating crossborder dialogues and cooperation. The use of the acronym "HKH" will not be understood by the general public. An option would be to use the term "Himalayas".
- Simplifying the message without losing its nuance is a key factor. Engaging celebrities and activists (like Afroz Shah and Al Gore) to communicate messages to the general public is a good strategy. It's very important to use as many visuals and graphics as possible in communication and knowledge products.

### Additional event information and materials are available at:

https://www.icimod.org/event/regional-editors-meetand-launch-of-the-hindu-kush-himalaya-assessmentmountains-climate-change-sustainability-and-people/

### File links:

Agenda **Photos** Media coverage

To know what the world is saying about the HKH Assessment, visit:

https://www.youtube.com/watch?v=RFZGgg1cTMI

