HI-AWARE Internal Report

HI-AWARE
Himalayan Adaptation, Water and Resilience Research

CARIAA
Collaborative Adaptation Research Initiative in Africa and Asia

Conference Proceedings

Climate Change Adaptation Policy and Science (CCAPS) Conference

24–25 February 2016, New Delhi, India

Consortium members

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About HI-AWARE

The Himalayan Adaptation, Water and Resilience (HI-AWARE) Research Consortium conducts research and pilot interventions, capacity building and policy engagement to enhance the climate resilience and adaptive capacity of poor and vulnerable people living in the mountains, hills and flood plains of the Indus, Upper Ganga, Gandaki and Teesta river basins in Pakistan, India, Nepal and Bangladesh.

HI-AWARE aims to influence policy and practice to aid the climate resilience and adaptation of poor and vulnerable populations in the region by generating evidence-based knowledge on geophysical, socioeconomic, gender and governance drivers and conditions leading to climate vulnerability, as well as monitoring and assessing adaptation measures. It focuses on identifying 'critical moments' when communities are most vulnerable to climate risks, 'adaptation turning points' when existing adaptation strategies no longer work, and "adaptation pathways", sequences of policy actions that address both short-term responses to climate change and longer-term planning. It looks at strengthening the expertise of researchers, students and science-practice-policy networks to conduct as well as use research on climate/social vulnerabilities, resilience, and adaptation.

HI-AWARE comprises of five consortium members: The International Centre for Integrated Mountain Development (ICIMOD), the Bangladesh Centre for Advanced Studies (BCAS), Pakistan Agricultural Research Council (PARC), The Energy and Resources Institute (TERI)-India, and Alterra-Wageningen University and Research Centre (Alterra-WUR).

HI-AWARE is one of the four research consortia under the Collaborative Adaptation Research Initiative in Africa and Asia (CARIAA) supported by the UK's Department for International Development (DFID) and Canada's International Development Research Centre (IDRC).

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Organised by

Himalayan Adaptation, Water and Resilience (HI-AWARE) Research
Collaborative Adaptation Research Initiative in Africa and Asia (CARIAA)

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Executive Statement

The Climate Change Adaptation Policy and Science (CCAPS) Conference held in New Delhi, India, from 24-25 February 2016 brought together over 100 participants—HI-AWARE consortium members, partners, scientists, student researchers, and government and donor representatives—to discuss the reality of climate change and other changes taking place in the Indus, Brahmaputra and Ganges river basins. The "knowledge gaps" that research should henceforth address to in turn help policymakers address adaptation and to seek input on how evidence-based climate adaptation science should inform policy and practice were discussed at the conference. Also examined were the major challenges and opportunities facing the successful implementation of adaptation options to help the poor and vulnerable communities living in the said basins adapt to climate change.

David Molden, Chair of the HI-AWARE Steering Committee and Director General of the International Centre for Integrated Mountain Development (ICIMOD), in his keynote address, reminded everyone that HI-AWARE has a come a long way since the DFID-funded CARIAA meeting post COP 18 in Doha to address adaptation in glaciated river basins of the HKH. He highlighted the necessity for a connection between science and policy, which requires crossing boundaries, not only across disciplines, but also gender and countries.

Ajay Mathur, Director General of The Energy Resources Institute (TERI), underscored that science must answer when the nature of climate change impacts changes, as this has implications for policy and practice response. He also flagged the need for scientists to interact with policy-makers in each country to learn about the kinds of input the latter may need to do their jobs better—that of policymaking with respect to climate change adaptation.

Anindya Chatterjee, IDRC, said he was interested in seeing partners work together to address climate change issues, and that he felt it is important that science be brought forth for better interaction with policy and practice. He expressed his appreciation for HI-AWARE's exemplary work on integrated energy use in the Indus, Pakistan; and on flood-resistant housing in Bihar, India; and Rangpur, Bangladesh.

Rucha Ghate, Senior NRM Governance Specialist at ICIMOD, pointed out that HI-AWARE researchers were lucky to be working in three river basins across four countries. She recounted that her recent field visit to Bihar taught her that households with only female children were the most vulnerable. To the question, how can HI-AWARE research help such households, Ghate said social research is important to identify who really needs what most.

Ashok Lasava, Secretary, Ministry of Environment, Forests and Climate Change (MoEFCC) of the Government of India, said that his government has launched a national mission on Himalayan studies to come up with prescriptions for what needs to be done to help people adapt to climate change. He stated that the 12 Himalayan States of India are already considering adaptation projects such as introduction of new crop varieties, regeneration of springs in hills, and rainwater harvesting, among others. He outlined the potentials that need to be harnessed in hill areas, especially in terms of hydropower and tourism development, while keeping their adverse impacts on the environment in check. This would include better management of wastes. He argued that science and policy must play a joint role in striking a delicate balance between development and conservation.

Pradipto Ghosh of TERI opined that the process of policy-making consisted of several steps; the first of which demands that science must play a key role in giving answers to the causalities of the climate issues most pressing for humans. He said dialogues need to take place between scientists and policymakers to set a research agenda "what needs to be researched to create an impact". So the focus of scientists should not just be on publishing journals but also on informing policymakers about which sectors need what policy inputs.

Philippus Wester thanked everyone present at the inaugural and encouraged all to participate actively in all sessions of the conference.

The first session of the conference discussed what we do know about climate adaptation science and what do we not know about the same, and ways in which to address the 'knowledge gaps" that still exist. For example, the hydrogeological aspects of hill springs across the Hindu Kush Himalayan region are still largely unknown. The financial, technical, and gender and social equity aspects of adaptation at different time scales were flagged—including the challenges of downscaling global-scale data to catchment or community levels and implementing adaptation at the local level—taking cognizance of the fact that politically expedient adaptation strategies are not necessarily the most scientifically sound strategies. It was further flagged that rural poverty and food insecurity—factors that drive outmigration—were immediate concerns, whereas adaptation in the water sector is doomed to failure without crosscutting solutions linked to the energy and food sectors.

The second session of the conference discussed adaptation from a multilevel governance perspective. It was deemed next to impossible to formulate policy that will support transformative adaptive changes without a paradigm shift in governance mechanisms in South Asia. So vertical devolution: across levels of governance, and horizontal consolidation: across multiple thematic levels of policy were suggested. Devolution without mechanisms of accountability, however, would not work, considering the threats posed by corruption at the local level. Also, it was suggested that research and information need to trickle down to the local level so that there is a blending of science with local knowledge. There was a call for the mainstreaming of climate change as a threat multiplier, which also takes into account disaster risk reduction.

During the third session of the conference, The Mountain Institute India; The Centre for Ecology, Development and Research; Practical Action; and Gana Unnayan Kendra—all strategic partners of HI-AWARE—exhibited posters of their ongoing research and adaptation interventions on: a) reviving drying mountain springs in Sikkim, India; b) spring revival and lake sustainability in Uttrakhand, India; c) rice-duck farming in Chitwan, Nepal; and d) flood resilient housing in Rangpur, Bangladesh, and shared their plan or strategy for scaling them up.

The following morning, Sanjoy Hazarika gave what was billed as the Big Talk on "The North East: Where India and South East Asia Meet—A Weave of Stories." He put North East India in its proper historical, political and cultural contexts and also shared several "stories" from the region so rich in trust and social capital. His story about "boat clinics" on the mighty Brahmaputra River that deliver medical services to far-flung rural villages went down very well.

Arabinda Mishra of ICIMOD next facilitated a session on "Science Policy Interface (SPI): Participatory Exercise" aimed at bringing out the influence of the particular SPI context in defining the main challenges/opportunities related to the successful application of seven adaptation interventions (alternative livelihoods, heat alert system, harnessing of social/financial remittances, recharge of underground water, flood resilient housing, plantation along river banks, and rainwater harvesting) proposed by the conference participants.

All in all the conference was very commendable in terms of content, gender balance, and quality of participation, as it included individuals from the Secretary of the Government of India to young PhD, MPhil and MSc student researchers from different countries. The proposed way forward was to focus HI-AWARE research and interventions on benefiting populations from the HKH region most vulnerable to climate change. The conference successfully highlighted the importance of a convergence between science, policy and practice, including linkages between short-term solutions and the long-term goal of climate change adaptation.

Inaugural Session

The annual Climate Change Adaptation Policy and Science (CCAPS) conference began with an introduction of HI-AWARE by Principle Investigator and conference facilitator, Philippus Wester from the International Centre for Integrated Mountain Development (ICIMOD). He expressed excitement over the multiplicity of the audience gathered for the event and invited speakers to be straightforward. He also voiced a conviction to work with delegated responsibility within the programme, calling upon David Moldento to deliver the opening remarks.

Welcome Address: David Molden, Director General of ICIMOD and Chair of the HI-AWARE Steering Committee

"We share the Himalayas and its resources, which bind us together".

David Molden thanked all members on the panel and welcomed all participants to the HI-AWARE family. He iterated that many countries are now coming together to tackle global climate change. In the recent COP-21 meeting in Paris, many young people seemed resolved to tackle climate change. "It is," he opined, "make or break time", subsequently commending HI-AWARE for its efforts to bring young women together to address one of the greatest issues of our time.

Molden reflected on the inception phase of HI-AWARE when, post COP-18 in Doha, some members participating in the DFID funded CARIAA meeting took notice of the problem statement: How will glaciated river basins highly vulnerable to climate change adapt? It was expressed that the issues related to glaciated river basins were thought to be ideal for ICIMOD and its partners to take up. Atiq Rahman, Suruchi Bhadwal and David Molden promised to work together to build a proposal for HI-AWARE with Philippus Wester who eventually gave structure to the proposal. IDRC and DFID funded the HI-AWARE programme, which then came into action. While the original focus area was glacier retreat, the main question evolved into: What does it mean for people living in mountainous regions to experience problems and impacts related to the climate? The question, of who is most affected and how, still remains largely unanswered.

Molden added that while it is customary to work in a hierarchical set-up, the challenge is to do so as a team on an equal footing. ICIMOD believes in the power of partnerships, and building partnerships takes time and understanding organisational cultures. The payoff of such an investment was said to be visible in the coming together of the HI-AWARE team. He opined that climate change is only one of the issues facing the people of the region. Issues related to poverty, migration and globalisation are all inter-connected and climate change is just one such issue. In this context, he argued that connectivity was key. It was added that there must be new ways of looking at issues faced by the people of the Hindu Kush Himalayan (HKH) region if people with different skills from different sectors are to work together. One way to do this is to find solutions that transcend particular fields of work, from

politics to sociology, economics to environment, and to surpass the limitations of each field. Another way is to bring a new generation of women and men to work together to address the problems. The planned HI-AWARE Academy, therefore, brings students together to address climate change issues.

Molden also highlighted the necessity for a connection between science and policy in order to bring about work that transcends science and bridges the gap between science, policy and practice. To do that, crossing boundaries, not only of policy and practice but also of gender and countries, is required. In his closing remark, Molden reflected on the Paris convention where it was said that we should now stop saying 'we should' and start saying 'we shall', implying that action has become urgent.

Welcome Address: Ajay Mathur, Director General, The Energy and Resources Institute (TERI)

"Policy says what we should do; science says what can be done. We have our work cut out in science to address these problems".

Ajay Mathur welcomed everyone and, as someone relatively new to the project, expressed excitement about joining a project with the aspiration of crossing boundaries through science and bringing young researchers into the analysis of climate change and its future. He articulated the need for an interface between science and policy and posed problematic questions such as:

- What are the policy needs for adaptation?
- What does the reality of climate change say about policy?
- How early is early response in policy to address problems that science brings forth?
- Why aren't we ready to face the issues that we are facing today?

He then said that identifying the barriers in science was as important as knowing when the nature of climate change impacts changes as this has implications on policy and practice, including the nature of our adaptation interventions. This is where science needs to address issues related to the changing nature of climate change impacts. What, then, is the nature of the policy response that needs to go in? For example, we assume that we are able to address the problem of the annual flooding of a given river for five years, addressing the problem each year in the same way. When qualitative changes in the nature of the impact of the floods take place, science must be able to tell us what changes have taken place. Also, we need to interact with policy-makers in each country to learn about the kind of policy input they may need from us to, in turn, enable us to provide them information with greater precision.

Mathur then concluded his welcome address by expressing his excitement about work in partnership and thanked everyone.

Philippus Wester then described how HI-AWARE fit into the larger global perspective through CARIAA's four consortia with a budget of 17 million USD, one of the largest projects on climate change yet. He also commented on the visionary leadership of IDRC from the year 2001 onward, subsequently calling upon Anindya Chatterjee to address the conference.

Anindya Chatterjee, Regional Director – Asia, International Development Research Centre (IDRC)

"Bringing three things on one platform: science, policy and partnership".

Anindya Chatterjee expressed his happiness at seeing HI-AWARE come alive. As one of the largest programmes being supported by the consortia, HI-AWARE is well aligned with the international policy space of COP-21. Also, Canada has recommitted itself to climate change with renewed vigour, especially in water and health (particularly vector-borne diseases). Chatterjee said that at the IDRC level, policy and science had come together in a more systematic way than before. He was interested in bringing partners together to address climate change issues, and he felt it is important that science be brought forth for better interaction with policy and practice. He expressed appreciation for HI-AWARE's work on integrated energy use in the Indus, and flood-resistant housing in Bihar, India and Rangpur, Bangladesh. He ended his speech with an expression of excitement over the chance to interact with young researchers on Sunday.

Philippus Wester next introduced Rucha Ghate to speak, referring to her as one of the key intellectual pillars of HI-AWARE. Her expertise in the governance of natural resources and trans-disciplinary science was deemed very helpful, as climate change is also a governance challenge.

Rucha Ghate, Senior Natural Resource Management (NRM) Governance Specialist, ICIMOD

"Only if we are able to help the last person will our interventions be of the best kind".

Rucha Ghate, presenting a researcher's perspective, reminded everyone that HI-AWARE is not the first programme to undertake research on climate change, and that it won't be the last. She then asked how HI-AWARE could be unique. She added that it was a dream come true for researchers to be able to work in three river basins across four countries. During a recent field visit to Bihar, she posed a question to the people in one the villages: Who are the poorest in your village?

The answer very nearly shocked her. The people in the village had replied that those households with female children only were regarded as the poorest and the most vulnerable. "Why?" Ghate and her colleagues followed up. It was because the fathers in

those households could not out-migrate for work, and employment opportunities for female members were nullified. In one particular household headed by a woman with four daughters, the woman had lost her husband but didn't know how. This woman could not leave her house because the oldest of her daughters was only 10. They lived in a hut with almost see-through walls. To a researcher, she represented the most vulnerable, but the critical questions were: How might HI-AWARE help her kind? Can scientific data and policy analysis reduce her vulnerability? Can knowledge—and if so, what kind of knowledge—change her life for the better? What solutions can HI-AWARE provide here? Ghate concluded by iterating that focus needs to be put on social research as much as upon scientific research to know who really needs what most.

Philippus Wester then asked Ashok Lasava to speak on stage.

Ashok Lasava, Joint Secretary, Ministry of Environment, Forests and Climate Change, Government of India

"People do not wish destruction upon themselves, so the challenge lies in making best recommendations to fulfil their aspirations while helping to maintain their well-being".

Ashok Lasava started by questioning how scientific analyses, research and policies address the aspirations that people living in the Himalayas have. He pointed out that the Himalayas were historically important, as evidenced by mythologies, folklore and literature. Only now it has come into sharper focus because of climate change. This conference, he remarked, symbolised the coming together of different people working for and trying to improve the quality of lives of the people in the Himalayas, people who are not quite responsible for the vagaries of nature and the impacts brought about by climate change. He added that the scope for adaptation in this region is, therefore, huge and immediate.

Lasava pointed out that the Himalayas act as a water reservoir for a large part of India. Fully aware that scientific evidence is required to perceive the subtle and not-so-subtle changes in this region, the Government of India has launched a national project on Himalayan studies to come up with prescriptions on what needs to be done to adapt to these changes. Many regions like Darjeeling and Manipur were already alert and trying to take measures to adapt to changes in their environment. Twelve Himalayan States in India are now already thinking about encouraging people to take up adaptation measures such as the introduction of new crop varieties, regeneration of springs in hills, and rainwater harvesting, among others.

He noted that hill people live in difficult conditions and want to improve their lives. The hills have a huge potential for 'hydels' which will provide most of India's energy. When India became independent, 40% of its energy was thought to come from hydropower but after 60 years of independence, India had only been able to exploit 24% of its hydropower potential. In those regions where these resources reside, its people see 'hydels' as an economic opportunity. The adverse impact they might have on the fragile ecosystems is also a major concern. Lasava said that cumulative impact assessment studies for four or five basins had been completed and that more would be completed in a few years' time. Perhaps studies should identify measures to protect environments and exploit economic opportunities to address the adverse impacts of hydropower development.

Lavasa then asked: How do we mitigate the adverse impacts so that the state and the entire country benefit? Given the fact that everyone wants to go to the hills, the promotion of tourism could bring huge economic opportunities to hill people. Further, there are people who opine that hill communities can be best protected if they are left alone. Also, if development is to happen, the penetration of market forces into hill villages will lead to the generation of a lot of waste. The limited land available in the hills is already being taken up by waste. The challenge, therefore, is to strike a balance between helping people fulfil their aspirations and protecting their environment and ecosystems.

Philippus Wester summed up the points made by Lavasa into four main headings: consumerism, hydropower, tourism and waste-recovery. He also apologised on behalf of the Secretary of Water Resources who could not attend the event and called upon Prodipto Ghosh to address the audience.

Prodipto Ghosh, Distinguished Fellow, TERI

"The aim is to improve livelihoods of the people and the ecosystems in the Himalayas as it is in the interest of everyone upstream and downstream."

Prodipto Ghosh said that it was the perfect time to hold a conference in Delhi, as pollution had abated somewhat and good weather had been forecast for the foreseeable future. Talking about the "nexus between policy and science", he said the process of policy-making consisted of several steps; the first demanded that science play a key role in giving answers regarding causalities of the issues most pressing for humans, identifying not just the symptoms but also the root causes of problems such as biodiversity loss and climate change. He said heavily evidenced research must be brought to bear in three aspects: the physical sciences, the natural sciences and the social sciences.

Ghosh said that science therefore fuses with policy in a rich and interactive way. However, the reality remains that there are scientists who don't understand policy and policy-makers who do not understand science. Dialogues have to take place between the two parties to agree on "what needs to be researched to create an impact", as policy-makers would be worse off without science, which relies on evidence. The primary aim of science, therefore, should not just be to publish journals but also to inform policy-makers, which sectors need what policy inputs. He thanked ICIMOD for bringing science and policy together to address issues of climate change adaptation in the Himalayas, adding that this was the surest way forward to ensure that people have sustainable livelihoods at present and in the future. He ended his speech with a note on how the conservation of Himalayan ecosystems is of great consequence to the entire world.

Philippus Wester thanked all the participants present at the conference, especially the dignitaries on the panel. He apologised that he could not invite everyone to speak. He ended the inaugural session with a promise of more interactive sessions on climate change and adaptation later that day and the following day.

1 Adaptation Science in the HKH region: What do we know—What do we Need to Know?

Anand Patwardhan, University of Maryland, USA

Patwardhan's keynote was on the importance of interdisciplinary experience. He emphasised on the fact that climate risk increases with temperature increase. He noted that the IPCC AR5 report discusses adaptation in detail but that the linkages between science and action were weak and not adequately discussed. He posed two key sets of questions: What do we know, and what do we need to know, and how should we find out what we need to know? How do we make better connections between science and action, as these are currently weak?

Patwardhan said that there is a need to strengthen the disciplinary base and make better climate change projections. He also gave examples of rethinking science and rethinking implementation. He talked about how measuring the unmeasured is very important, and emphasised on documenting and scaling autonomous/private adaptation.

Arun Shrestha, ICIMOD

The speaker started the presentation with three key challenges for climate change adaptation—finance, technology and knowledge regarding changes at different time scales. His key message, that there is need for making use of climate information and transforming it into information, which can then be used to underpin sensible adaptation decisions which will determine the future. He also briefly discussed the scale issue as a big gap in climate change research, specifically projections at the global scale that are difficult to scale down at different regional, watershed and community scales in the South Asian context.

Sara Ahmed, Independent Researcher

Ahmed focused on gender and social equity in the context of climate change adaptation. She quoted the UN General and Executive Director, UN Women, "Data on its own cannot change lives, but we will not change lives without them." She reflected on how aspects of gender can be measured in terms of adaptation and also stated that funding agencies need to focus more on gender issues in the context of climate change research. She talked about institutional barriers—both formal and informal, adaptation processes and practices, and emphasised particularly on migration as a key issue in the HKH region. Trafficking is a big concern and research projects should also emphasise women's contributions to remittances, not just men's.

Suruchi Baduwal, TERI

The speaker started the presentation by contextualising adaptation to the HKH region where she highlighted key challenges such as rainfall variability, the dependency of livelihoods on climate, complex geography, and the fact that a majority of the world's poor live in South Asia. She discussed the lack of interpretation of science at the local level for adaptation practices and strategies and reflected on scale issues while underscoring the need to plan adaptation at the local level.

Abu Syed, BCAS

The speaker's central premise was community-based adaptation. Syed sought answers to the important question of how we might link social science with physical science in climate change adaptation research. He talked about how NGOs and community organisations in Bangladesh are advancing adaptation practices by integrating adaptation with disaster risk reduction (DRR) and livelihood practices. He said that sectoral policies must consider climate impacts and integrate adaptation and that local adaptation can be made effective by taking science to the people and vice-versa.

Peter Droogers, FutureWater

The speaker discussed the challenges of decision making for appropriate climate change adaptation strategies. He said that it is crucial that adaptation focus on the future. To do that, he informed, we need to know the past (trends) and the policies for today. There are multiple adaptation strategies, as Droogers pointed out, to address water shortages, but the costs are different for each one. The speaker made a comparison between the costs of each strategy and their associated impact. He noted that politically expedient adaptation strategies are not always the most scientifically sound adaptation strategies.

Discussion Points

A short discussion session followed the presentations. The issue of how politics influences the production of science was examined. Sarika Pradhan, Joint Secretary, RMDD, Sikkim, said that more research needs to be carried out at the state level, the kind of research that will address people's issues. She explained this by offering the Dhara Vikas Programme in Sikkim as an example. There was a discussion on whether or not migration should be considered an adaptation strategy. Prodipto Ghosh from TERI mentioned that climate adaptation cannot be seen as separate from development. Anand Patwardhan emphasised the importance of communication and stated that we need a better interface between science and communities, and science and government policy.

2 Adaptation Policy —A Multilevel Governance Perspective

Purnamita Dasgupta, Institute of Economic Growth

Titled "Adaptation and Development: Framing the Frame", Dasgupta's keynote put the focus on 'adaptation' and 'development', and on why it is important to talk about development as separate from adaptation. She reasoned that there are three basic things that have interfered attempts at understanding adaptation in mainstream development:

First, the ecosystem and the economic system need to be seen as parallel complex adaptive systems and not as two opposing systems trying to supersede one another if we wish to see transformational adaption with respect to long-term climate change.

Second, the social sciences need to be seen as parts of the sciences in general. The speaker gave examples of maladaptation through photos, one of which was of a health centre that was built in a heat-stress area. The roof of this building was made of asbestos, which is known to trap heat, and therefore became the wrong kind of adaptation.

Third, planning horizons for the development agenda is short-term for economists and policy makers. In the long term, the nature and levels of risks change. Development, therefore, might address the ability of people to cope with things in the short term. But rebounding vulnerabilities, which are a form of maladaptation, are seen where short term benefits are eroded in the long term.

Hence, there is the need for adaptation. The speaker added that uncertainty should not become an excuse for inaction. Adaptation work helps focus on this. Communities should be able to come out and state their priorities and this will help build evidence on adaptation.

Dasgupta ended her presentation by posing the questions: What would be the most relevant climate change activities for the region? Can we prioritise them? Can we identify criteria/yardsticks to identify what could lead to perverse long-term developmental outcomes/maladaptations in the region?

Hina Salim Lotia, LEAD Pakistan

Loita stressed on the need to devolve vertically: across levels of governance, and consolidate horizontally: across multiple thematic levels of policy. The speaker highlighted that the main outputs of the year 2015—the Sendai Framework, the Paris Agreement, and the Sustainable Development Goals (SDGs) need to be discussed in a consolidated format. There is a need for vertical devolution and horizontal consolidation. Through a diagram, Salim flagged the complexities of the different SDGs and illustrated how the challenge of integration exists at a multi-sectoral level.

For example, many components under the SDGs are also part of internal national documents for Pakistan. But different ministries are working in silos and their efforts lack integration. This is especially true for the water, energy and food nexus wherein there are different ministries addressing issues of water, agriculture and carbon emissions.

The federal level, where most decisions are taken, is not devolved to the local levels.

The HKH is an ideal platform for multi-sector and multi-level governance to be promoted across national boundaries.

Arabinda Mishra, ICIMOD

The key message of Mishra's presentation was that it is a herculean, next to impossible, task to formulate policy that will support transformative adaptive changes without a paradigm shift in the governance mechanism in South Asian nations.

The speaker stated that the current policy framework does not support transformational adaptive change in the HKH region. Referring to the findings of an earlier research project conducted under the State Action Plans on Climate Change (SAPCC), it was found that subnational governments have not really acted as laboratories for experimentation and introduction of novelties with respect to mitigation actions. Most followed the general framework even though there have been some attempts to introduce innovation that cuts across sectors.

Adaptation, compared to mitigation, is more definitive. But the lack of innovation and experimentation exists even in the adoption of adaptation strategies (as seen in the SAPCCs). To that extent, the current policy framework is majorly top-down and doesn't allow for much experimentation at the sub national level.

Adaptation, being an iterative process, requires that one constantly look out for novelty and innovation. However, huge institutional capacity deficits don't allow that. Given the conventional top-down framing of policies, it is very difficult to think about transformational adaptation.

S Vijay Kumar, TERI

Kumar agreed with the previous speaker in that the National Adaptation Plan on Climate Change (NAPCC) was definitely top-down because it was an international issue that was mandated to go through national governments. It's a combination of many constraints and factors that prevents the government from achieving that ideal position in adaptation. For example, in most HKH states, the decadal growth rate of respective populations is in excess of 20%. This results in a situation where there are limited resources, high poverty, low headroom for adaptation options, constraints on funding, prioritisation and capacity problems, among others.

The key message of Kumar's presentation was that rural poverty and food security are immediate concerns in the face of which, it is very difficult to ask people about long-term insecurities. Switching to resilient adaptive modes requires resources particularly in areas of chronic poverty, natural and capital investments, community mobilisation and awareness.

Chris Scott, University of Arizona

Scott's main argument was that adaptation in the water sector is doomed to failure without cross-cutting solutions linked to the energy and food sectors. He identified several gaps that exist in this regard. These gaps can be summed up as anticipatory adaptation based on demand-driven and user-driven science, and discussions about transformative adaptation that is social and gender inclusive. Himalayan adaptation requirements through full basin but also transboundary linkages is also a gap. Scott said there is the need to avoid maladaptation and a need to consider cross sectors. Because one sector might have consequences for other sectors.

The speaker then introduced the water, energy and food nexus. The dialogue table themes revolved around adaptation and development challenges, hydropower, groundwater, springs and waste water.

Discussions

Following the presentations, the conference participants broke into five groups to discuss topics related to adaptation and governance. Purnamita Dasgupta, Chris Scott, Arabinda Mishra, Hina Salim Lotia and S Vijay Kumar facilitated the discussions that took place in the five different groups. The discussions enriched the dialogue on adaptation policy. There was talk of transformative adaptation, accountability, management challenges, and the need for research and information and to trickle down.

The main discussion points from each participant group have been synthesised below.

Group facilitator—Purnamita Dasgupta

- Reiterated the need for studying long-term impact and options.
- Adaptation needs to be more than just a part of development; some options need to be looked at separately. Otherwise, there is high probability that the options will turn maladaptive. This is because although development is important, it cannot absorb all the impacts of climate change, and it is not always equitable either.
- Political push for strengthening research on long-term adaptation.

Group facilitator—Chris Scott

- There may be several adaptation practices being adopted at the individual level, and there is a need for these to be recorded and institutionalised.
- Development of the kind where resources in the mountains are being tapped only to furnish the demands of the plains is likely to generate conflict. Such practices that don't look at the needs of the mountains in the process are a kind of maladaptation.
- While upstream-downstream sharing of resources is manageable, attention needs to be paid to transboundary management of resources where administrative units of different nations might need to be involved.
- The devolution and decentralisation of power must not be looked at without taking into account the threats posed by corruption at the local levels. Accountability—using mechanisms such as social audits (Sikkim example) must be introduced in parallel.
- Our research is not free from value systems and motives.

- Incentive-based mechanisms for adaptation to changing environments must be considered. For example, offering solar pumps instead of the already subsidised electricity for pumping groundwater will not help reduce the problem of groundwater depletion. However, if farmers are connected to a grid where they can earn extra income from selling surplus energy units, it will incentivise them to pump less water.

Group facilitator—Arabinda Mishra

- While the agenda of setting- and solution-identification is majorly a top-down approach in migration, in the adaptation context, there has to be a blend of the top-down and bottom-up approaches. What does Transformative Adaptation mean? It looks at the issue of institutional capacity building, while recognising that the local community has a rich capacity. Blending science with local knowledge is necessary. Problems need to be framed in different ways.
- Another point of discussion was how cultures reflect the values that underlie coping mechanisms. For example, in Nepal, meat—as dietary intake—was meant to contribute to the community's capacity to withstand cold. Hunting became a cultural practice. In that context, it becomes important to think about how to reconcile what culture permits and what science and policy are asking for (such as banning hunting). How do you counter local perception or data that maybe misleading, or local researchers who guard themselves against this?

- How local is local? What is the bottom of bottom-up? – Relative
- Knowledge gaps exist on adaptations in urban systems – High Complexity.

Group facilitator—Hina Salim Lotia

- There should be a call for the mainstreaming of climate change as a threat multiplier in HKH countries which also takes into account DRR (Disaster Risk reduction).
- Decentralisation is not enough. Research and information also need to trickle down.
- Regional-level integration between nations is necessary (especially HKH) so that the best practices can be incorporated.
- Institution and expenditure review—to look at budget coding at national and subnational levels on climate change related issues.
- Certification programmes on climate change for district-level officials under HI-AWARE or such programs.

Group facilitator—S Vijay Kumar

- Top-down is about international protocols. Management challenges are involved.
- How can we be more proactive and less reactive—we have development priorities across urban and rural realities. The management's task is to strike a balance.
- In the context of North East India's bamboo cultivation, there is the need to bridge science and native knowledge when it comes to signs of drought that have no scientific evidence backing them up.

3 Scaling-up Innovative Adaptation Practices in the HKH Region

Hina Salim Lotia, LEAD Pakistan

Lotia provided notes on how the scaling of adaptation should take place. She stated that data should be collected not only on vulnerability, but also on adaptation practices using standardised methods. Indigenous knowledge is equally important in adaptation. Also, the key determinants of adaptation at the community and household levels should be documented.

Sarika Pradhan, Joint Secretary, RMDD, Sikkim

Pradhan's presentation was on the revival of Himalayan springs. Drying springs lead to hardships during the lean season. The science of springs, particularly its links with rainwater infiltration and recharge, is not well understood. Threats to spring water supply include changing precipitation patterns and land use changes, but also limited scientific attention and knowledge gaps on sustainable water sources. Knowledge gaps include finding sources of springs, finding where the water is stored—in rock or soil, and how springs can be recharged.

In Sikkim, a multi-step adaptive approach that includes vulnerability analysis and landscape-based approaches is used. The revival of springwater in Sikkim's Sadam village is an example where a recharge project resulted in 150

million litres of annual recharge. However, reviving springs is not always possible. In villages near steep cliffs or on hills, reviving springs is not possible. Village water security plans are being developed: Fifteen have been made with 60 on the way. Monitoring is essential. Three field staff members monitor the springs discharge around Tendong Hill. The Village Spring Atlas Web portal with public information on over 700 springs is available at www.sikkimsprings.org. The efforts of Dhara Vikas have resulted in 1035 million liters of annual groundwater recharge with an investment of INR 26 crores over the last six years. Continued national and international knowledge sharing activities are taking place to share learnt lessons with each other and learn from each other's mistakes.

A question-answer session with the keynote speaker, excerpts from which are noted on the panel (right), took place next.

The second part of the session, the Knowledge Café, gave participants the opportunity to share ideas and insights as they made presentations related to their specific projects in an attempt to gain deeper understanding of the issues being discussed. A short description of the proceedings is given on the following page.

Q: Did you study the contribution of rice terraces on spring recharge?

A. Sikkim does not have a lot of rice terraces.

Q. Is there a conflict between highland and lowland water use?

A. Most of the highland areas are forested areas so there isn't much conflict.

Q. Is there an issue of pollution of aquifers because of household toilets?

A. Sikkim has an exemplary model of sanitation. The issue of solid waste and sewerage pollution is addressed through separate programmes on sanitation and solid waste collection by a government entity.

Q. What is the highest altitude at which your recharge areas are located? Have you encountered any accidents (like children drowing) in the recharge ponds?

A. Most of the recharge areas are in the mid-hills. Since the recharge areas are forested areas, and since they are shallow (about 1 feet deep), there is no evidence of accidents.

Q. Are there any evidences of recharge ponds reducing landslides? Also, have such recharge ponds existed earlier?

A. We have not studied the connections between recharge and landslides. No, the recharge ponds have been constructed only recently after several springs started drying up.

Q. Where does Dhara Vikas meet development activities, mainly, infrastructure development?

A. Dhara Vikas is based on total ownership on part of the village. It is demand-driven, and since the programme is housed under the Rural Development Department, the department has addressed other issues, like migration, in the area.

Poster Exhibitions

1 Spring Revival and Lake Sustainability, CEDAR

The poster focused on the need for the revival of critical spring and pond recharge areas in the mountainous region. These critical zones might be on agricultural land or religious sites with both scenarios creating management challenges.

Q. How do you identify a recharge zone?

A recharge zone is difficult to identify. The identification is based on a geological study of fractures, the slope of the rocks and the recharge rates of the springs themselves.

2 Reviving Drying Mountain Springs in Sikkim, The Mountain Institute India

The poster focused on the revival of springs in Sikkim, India. The presenter talked about the overall process involved in spring categorisation, the formation of Water Users Committees in villages and the formation of village-level Water Security Plans. Major challenges for the spring revival projects include the shifting of springs due to the earthquake, challenges associated with recharge pond clean-up, and the upscaling of activities due to funding constraints.

Q. Do earthquakes have any effect on springs?

Yes, earthquakes have a significant effect on spring location and water discharge. After the 2011 quake in Sikkim, many springs disappeared and shifted. In addition, development activities like road construction also reduce spring flow.

Q. What is the incentive mechanism for spring revival?

The initiation was supported by coordination between governmental and non-governmental agencies. A small government fund was provided. There was also support from the public.

Q. What about access to recharged spring water?

In our case, water is considered a community resource. Also, people are willing to pay for their water.

Q. Do you consider soil water retention capacities when identifying recharge areas?

Hydrogeological characteristics, including soil characteristics, are considered when identifying a recharge pond.

3 Rice-duck Farming, Practical Action

The presenter discussed integrated rice-duck farming as being practed in Chitwan, Nepal. The adaptation involved introducing a special variety of duck to the rice field with the ducks acting as biological pesticides.

Q. How does duck farming address climate change?

It increases the productivity of a given rice plot, reduces pesticide attack on rice, and diversifies and expands the livelihood income.

Q. How is the sustainability of this project addressed?

It can only be sustainable if there are good market linkages for the sale of ducks.

4 Flood-tolerant Cluster Villages as Community-based Adaptation, BCAS

The presentation discussed the cluster villages built by the government of Bangladesh on the Teesta basin. The approach to these 'cluster villages' is that the houses built in the floodplains are raised a few meters high so that they are flood tolerant.

Q. Who get selected to live in cluster villages?

There are government criteria regarding who can reside in cluster villages. People with less than 0.5 hectares of land, families without any earning member and widow are eligible to reside in government-built cluster villages.

Q. How do you make sure that the raised houses are flood-proof?

The designs are based on historical flooding events.

Q. Why are other villages not following this model?

This cluster village is only for 40–50 households and is not feasible for larger villages.

The North East: Where India and South East Asia Meet—A Weave of Stories

As the Big Talk by Sanjoy Hazarika could not begin as scheduled, Arabinda Mishra, ICIMOD, made good use of that time by giving an overview of the participatory exercise on "linking climate science, policy, and practice", the topic of the next session. When Hazarika arrived to share stories and good practices related to water issues, Navarun Varma from TERI, facilitator of the session, introduced him and his credentials, including one of his most successful projects—"AHA".

Hazarika started the session by projecting a map of North East India and Myanmar, and said that he would be sharing stories from communities in the Indian North East.

Ninety-six percent of India, Hazarika pointed out, is geographically connected to other countries in South Asia, which means only four percent of Indian land is not connected to neighbouring countries. Hazarika used this statistic to point out that distance is mental or perceptual. India, is in fact, literally very close to its neighbours.

The first story Hazarika shared was from Izol, the capital of Mizoram, where he had recently had a meeting on Disaster Risk Reduction (DRR). He pointed out that the area is extremely vulnerable to earthquakes and stated that if an earthquake measuring seven on the Richter scale were to take place there, 70–80 % of the town would collapse. He showed a photograph of an unmanned street-side vegetable shop with a cash box that had a sign that said, "Please take the vegetables but drop your money in the cash box", pointing to the high levels of trust and social capital in the region.

His next story dealt with the Assam Rifles. On 28 February, 1966, an insurgency— which had its roots in the famine brought about by the natural flowering of bamboos in the region—overtook the State of Assam. The total failure of the state government in delivering supplies of food and other essential materials at the time generated much hatred and anger, providing fuel to a new movement against the state as a result of which the army and police force had to called in.

The last story Hazarika shared was about a 17-year-old girl who had died after going into labour. He'd heard the story 15 years ago during a boat ride along the Brahmaputra. Her family had brought her on a stretcher from her island to the ghaat (the deck from which the ferry leaves), but had missed the evening ferry. They had spent a cold winter night under the open sky so that they could catch the morning ferry. The girl died on that ferry.

Upon researching the subject, Hazarika learnt that Assam had the worst maternal mortality rate in Asia. It was 490 for every 100,000 births. To minimise this maternal mortality rate, he and his team came up with a solution that was driven by the question: Why should patients visit health services instead of health care providers visiting patients? The team came up with the idea of constructing a ferry that provided health facilities. It was named Asha (Hope) and had good cabins for doctors, beds, medical supplies and essential equipment. Today, in partnership with the government, the team oversees 15 boat clinics offering services to people in multiple districts. The lesson, Hazarika said, is that possibilities for success increase when there are collaborative contributions being made by different stakeholders.

He went on to talk about an instance where, a couple of years ago, a boat clinic that had just finished work in an area in upper Assam found a couple waving their hands toward them. Upon reaching shore the crew discovered that the couple's child had acute respiratory problems which they managed to treat promptly. The child recovered, but had the crew reached them even a few hours later, she would surely have died. The couple had noticed how the boat clinic always followed its route so they know where and whom to turn to when their daughter fell ill. Hazarika hoped to shed light on the value of hope and trust with this story.

Following the Big Talk, the floor opened up for a discussion session that was moderated by David Molden. When asked what would incentivise a professional to work in rural areas, Hazarika responded saying that while most medical professionals do not want to work in rural areas because they believe they will not be provided enough facilities, the boat clinic provides all the essential facilities in the boat itself. He added that medical professionals who have worked for over 40 years may want to spend the rest of the productive life doing the same job a little differently. He indicated that his team was working to reach out to more rural patients in more districts.

Linking Climate Science, Policy and Practice— Participatory Exercise

The aim of the session was to introduce the concept of Science Policy Interface (SPI). The conference participants were divided into seven groups with each group being assigned one of the following seven issues to deliberate over: Biodiversity, Groundwater Depletion, Heat Wave, Migration, Flood, River Bank Erosion, Drought.

The group exercise could be completed by following three steps. The first step was to characterise the science policy practice employed in a given basin by applying a set of diagnostic criteria for the issue each group was assigned. The second step was to identify potential adaptation options for the issues each group had been assigned and rank them based on three dimensions using a five-point scale. The three dimensions were: the solution being evidence-based, politically feasible and participatory. The third and final step was to list the challenges and opportunities related to the successful application of solutions with the categorised science-policy-practice context at the basin level.

The following interventions, challenges and opportunities corresponding to each group's issue were reported:

Group	Intervention	Opportunities	Challenges
Biodiversity	Alternative options for livelihood	Sound interest and public participation LBS technical knowledge able to mobilise local available resources solution Upscaling opportunity	Policymakers are not able to internalise the available technical knowledge and relate the same to marginalised and deprived communities Market access
Heat Waves	Daily alert system based on local thermal comfort index	Replicability Knowledge acquisition Policymakers can react to the information as early as possible	Patient monitoring network Building institutional capacity
Migration	Harness social and financial remittances	Incentivise productive use of remittance	Sectoral approach Siloization of policies
Groundwater Depletion	Recharge property of groundwater	Can be scaled accordingly	Lack of land for storage
Flood	Flood-resilient houses	Overview of Upstream-downstream perspective	To convince policy makers
River Bank Erosion	Plantation along the river banks	Public engagement in overcoming river bank erosion	Ecologically friendly engineering solutions Lack of implementation of regulatory framework
Drought	Rainwater harvesting	Access to drought information for farmers	Accuracy of drought forecasting

Following presentations from the various groups, Arabinda Mishra summarised the session stressing on the influence, from a researcher's point of view, on the science policy interface. Mishra added that the characterisation of various problems and their solutions, influences, choices and recommendations regarding the same from a researcher's perspective can influence the policy level.

Closing Session

Wester said the conference had proven very qualitative in terms of gender balance, equity and participation. He said that he had taken a pledge not to be part of any panel with only male members on it. He then requested take-home messages from the three members on the panel: Kallur Murali from IDRC, G Mini from TERI and David Molden from ICIMOD.

Murali started his closing remarks by thanking everybody for their active participation. He appreciated the quality of the conference in terms of content as well as participation, as it included individuals ranging from the Secretary of the Government of India to young PhD, MPhil and MSc student researchers from different countries. He also discussed the need to focus on how our research and interventions can benefit the most vulnerable populations at the lowest levels of society and said that the conference successfully highlighted the importance of convergence among Science-Policy-Practice. Similarly, he also appreciated the sharing of community-level adaptation practices with a strong scaling potential. He was interested in seeing if policy reflects local-level aspirations and shared that it would be great to have follow-up workshops on putting policy into practice.

Murali stated that there is already a need to consider the linkages between the short-term solutions and long-term goals of climate change adaptation. The short-term solutions should help in meeting the long-term goals, and for this the thought process should begin from the very start. He also highlighted the need for making policies more implementable and for identifying and trying rural local innovations with scale potential.

G Mini from TERI shared her views regarding the conference stating that it had been able to draw participants into engaging discussions through diverse approaches including the knowledge café and the participatory approach of analysing the state of Science-Policy-Practice linkages as used by Dr Arabinda Mishra. She also expressed interest in the upcoming HI-AWARE Academy designed for HI-AWARE researchers, including students, and their field visits; and wished them the best.

David Molden from ICIMOD lauded the participatory approach embraced by conference organisers. He particularly appreciated the opportunity given to students to interact with senior scientists and policy makers. The inter-disciplinary and trans-boundary mix of the participants, he said, was crucial for synergy and the generation of ideas and innovation. He encouraged the HI-AWARE team to reach out to local schools and universities, and to involve them in HI-AWARE activities as it works to fulfil its objectives. He clarified that what HI-AWARE offers is ideas and innovation, and that it is when different teams are working together that they are crossing boundaries and upscaling technologies. He went on to talk about how HI-AWARE, an initiative that today has a such big team working together for climate change, started with a single idea which led to the teaming up of very good organisations.

The session ended with Philippus Wester extending a vote of thanks to the main donor organisation, DFID. Wester thanked the IDRC for not only funding the programme, but also getting involved in it as an active partner. He thanked Kallur Murali of the IDRC for his constant support and critical input. Thanks were also extended to HI-AWARE consortium members, the consortium research management team, strategic partners, steering committee members and donors. Wester thanked TERI and its support team, and ICIMOD for organising the conference. He also confirmed that similar annual events would be organised in other countries in the coming years.

Annex 1: Programme

Day 1, 24 February, 2016

Time	Session
09:00–10:00	*Registration and Tea*
10:00–11:00	**Inaugural Session** Facilitator: *Philippus Wester*, ICIMOD Welcome Address: *Ajay Mathur*, TERI Welcome Address: *David Molden*, ICIMOD Special Remarks: *Anindya Chatterjee*, IDRC Special Remarks: *Rucha Ghate*, ICIMOD Keynote Speaker: *Shri Ashok Lavasa*, Secretary, MoEFCC, GoI Keynote Speaker: *Shashi Shekhar*, Secretary, MoWR, GoI Closing Remarks: *Prodipto Ghosh*, TERI
11:00–11:30	*Coffee/Tea Break*
11:30–13:00	**Session 1: Adaptation Science in the HKH region: What do we Know—What do we Need to Know?** Facilitator: *Anjal Prakash*, ICIMOD Chair: *Eddy Moors*, Alterra Key Note: *Anand Patwardhan* Panelists: *Arun Shrestha*, ICIMOD *Sara Ahmed*, independent researcher *Suruchi Bhadwal*, TERI *Md. Abu Syed*, BCAS *Peter Droogers*, FutureWater
13:00–14:00	*Lunch*
14:00–15:30	**Session 2: Adaptation Policy – A Multilevel Governance Perspective** Facilitator: *Anjal Prakash*, ICIMOD Chair: *Atiq Rahman*, BCAS Key Note: *Purnamita Dasgupta*, IEG Panelists: *Hina Salim Lotia*, LEAD Pakistan *Arabinda Mishra*, ICIMOD *S Vijay Kumar*, TERI *Chris Scott*, UoA *SP Singh*, CEDAR
3:30 –4:00 pm	*Tea Break*

16.00–17:30	**Session 3: Scaling-up Innovative Adaptation Practices in the HKH Region** Facilitator: *Anjal Prakash*, ICIMOD Chair: *Nadeem Amjad*, PARC Key Note: *Sarika Pradhan*, JS, RMDD, Govt. of Sikkim Special Remarks: *Farid Ahmad*, ICIMOD Knowledge Café: *Rajesh Thadani* and *Vishal Singh*, CEDAR *Bashir Ahmad*, PARC *Ghanshyam Sharma*, TMI *Gehendra Gurung*, Practical Action *Abu Sayem Md. Jannatun Nur*, Gana Unnayan Kendra (GUK)
6:30 onwards	*Reception Dinner*

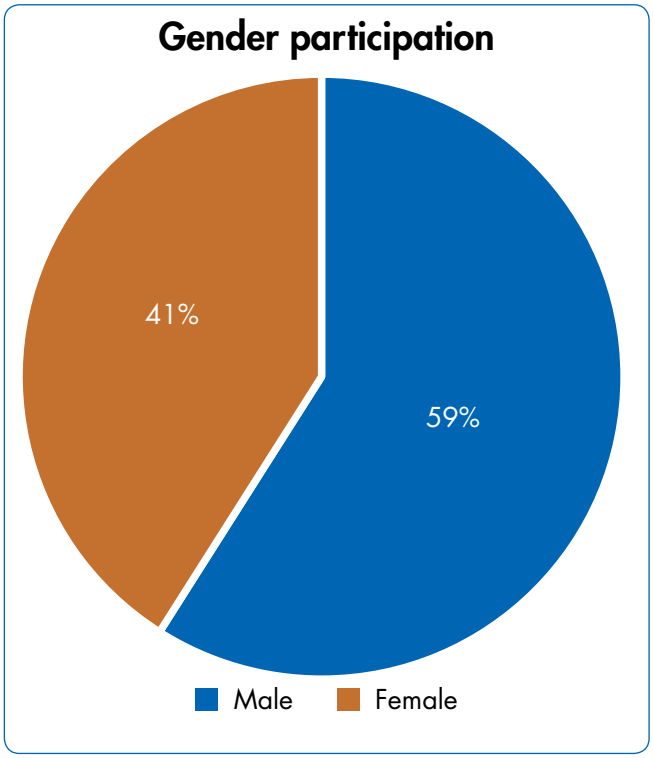
Day 2, 25 February, 2016

Time	**Session**
09:30–10:30	Big Talk—*Sanjoy Hazarika* Facilitator: *Navarun Varma*, TERI
10:30–11:00	*Tea Break*
11:00–12:30	Linking Climate Science, Policy and Practice—Participatory Exercise Facilitator: *Arabinda Mishra*, ICIMOD
12:30–13:00	**Closing Session** *Kallur Murali*, IDRC *Philippus Wester*, ICIMOD *Suruchi Bhadwal*, TERI Closing Remarks: *David Molden*, ICIMOD
13:00–13:10	Conference Evaluation
13:10–14:00	*Lunch*

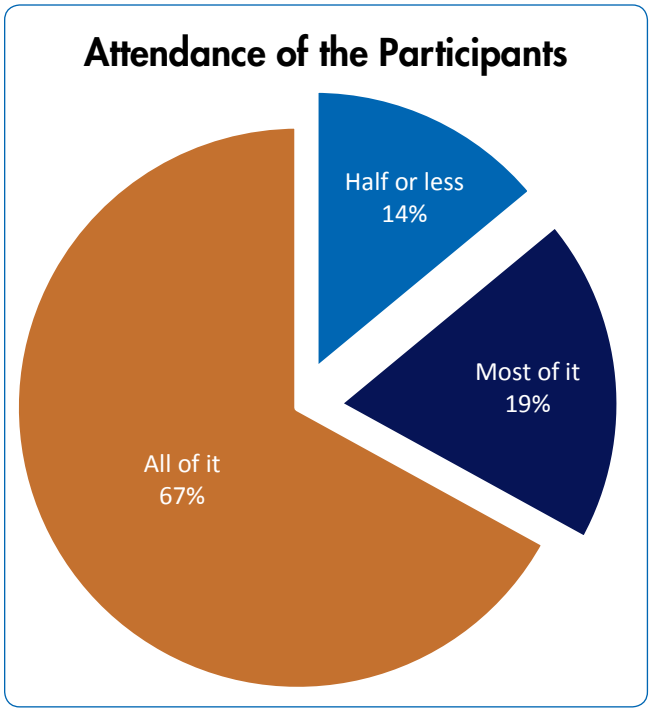
Annex 2: Evaluation

A total of 110 people were present at the HI-AWARE CCAPS conference, out of whom only 57 submitted the evaluation forms.

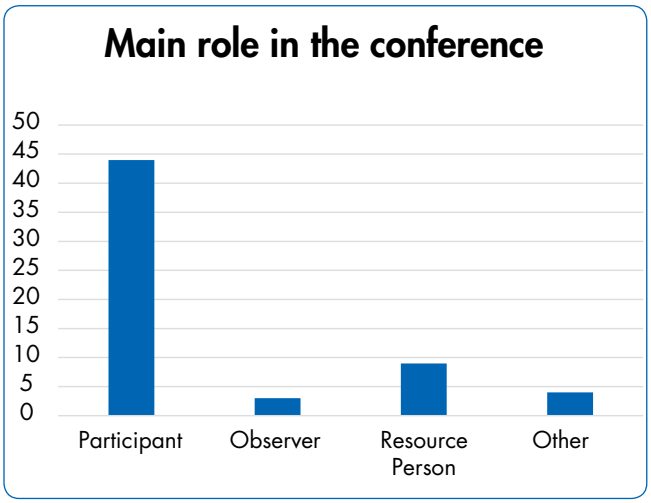
A staggering 41% of participants were female, which, given the context of the South Asian region, is very encouraging.



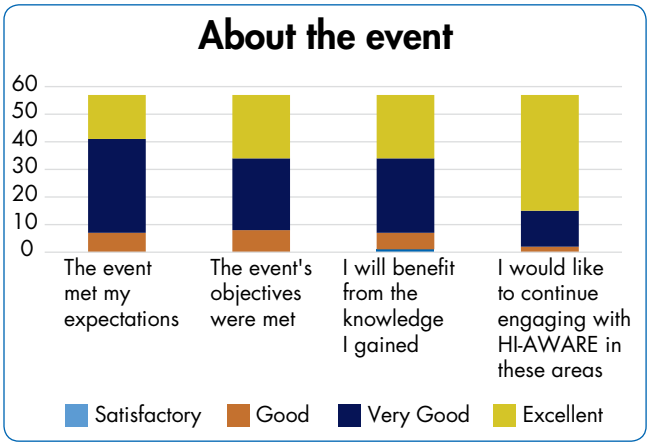
In terms of participation, a good majority of conference attendees (67%) were present throughout the conference, and 19% through most of it. So it can be deduced that there was a good level of participation. Fourteen percent of the participants attended half or less of the conference given their busy schedules and other important engagements.



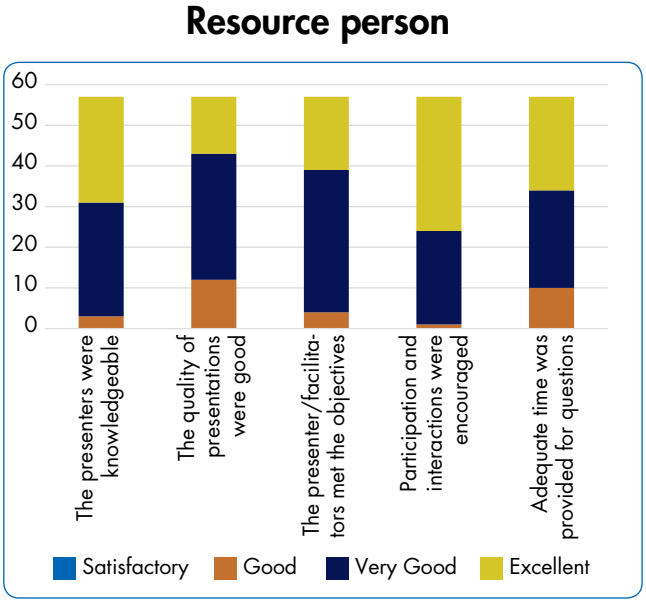
While most of the attendees were active participants, a substantial number of resource persons were also present. Conference attendees ranged from students to young researchers to experts in various climate-related activities. This diversity was seen as encouraging by the organisers. While active participants made up the majority of the attendees, the number of resource persons and observers present at the event was also encouraging.



The event met the expectations of a large portion of the participants, as shown in the graph below. The participants' evaluations suggested that the event had met its objectives and that the participants themselves would benefit from the knowledge gained. A substantial number of participants said that they were eager to continue to engage with HI-AWARE in these areas.



Regarding the resource persons—organisers, presenters and facilitators, the attendees seemed quite satisfied with their knowledge of topics and the quality of their presentations. The attendees also agreed that the programme's objectives were met and that the level of participation in discussions was encouraging. Few sessions attracted intense discussions and debates. Overall, the participants agreed that the conference had been organised and completed successfully. They also agreed that adequate time had been provided for questions and answers, whereas in some cases there were long discussions between experts and fellow participants.



Annex 3: Feedback Form

Dear Participant,

Please indicate your impressions of the items listed below. Your responses, no matter how positive or negative, are valuable to us. Your responses are anonymous and confidential.

Please circle the number against the statement most applicable to you.

A General Information

1. Which of the following best describes your main role in this workshop/seminar?

   a. Participant
   b. Observer
   c. Resources person (organiser, presenter, facilitator)
   d. Other, please specify _____

2. How much of the conference were you able to attend?

   a. All of it (everyday, all sessions)
   b. Most of it (most days and sessions)
   c. More than half
   d. Half or less

3. Are you

   Male ☐ Female ☐

B About the Event

	Satisfactory	Good	V Good	Excellent
The event met my expectations	1	2	3	4
The event objectives were met	1	2	3	4
I will benefit from the knowledge I gained	1	2	3	4
I would like to continue engaging with HI-AWARE in these areas	1	2	3	4

C Resource Persons

	Satisfactory	Good	V Good	Excellent
The presenters were knowledgeable	1	2	3	4
The quality of presentations was good	1	2	3	4
The presenters/facilitators met the objective	1	2	3	4
Participation and interaction encouraged	1	2	3	4
Adequate time was provided for questions	1	2	3	4

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