

Third Upper Indus Basin Network – Afghanistan Chapter Meeting

Strengthening Water Resources Management in Afghanistan (SWaRMA)



ICIMOD



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



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Third Upper Indus Basin Network – Afghanistan Chapter Meeting

Strengthening Water Resources Management in Afghanistan (SWaRMA)

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Contents

| | |
|---|----------|
| Summary | 1 |
| Background and Objectives | 2 |
| The Meeting | 3 |
| a) Recap of the First UIBN–AC Meeting and Outcomes | 3 |
| b) Progress of the UIBN–AC after the First UIBN–AC Meeting | 3 |
| c) Issues, Working, and Reporting Mechanism of the UIBN–AC | 4 |
| d) Progress and Issues of the TWGs | 4 |
| e) Research Gaps | 5 |
| f) UIBN–AC SC Meeting | 6 |
| Annexes | |
| Annex I: Meeting Agenda | 7 |
| Annex II: Meeting Participants | 8 |
| Annex III: Post-Assessment Summary of the Second Regional UIBN Workshop | 9 |

Summary

As an informal knowledge and research network of national and international researchers working in the upper part of the Indus basin, the Upper Indus Basin Network (UIBN) continually aims to coordinate research on climate, cryosphere, water, hazards and vulnerability, and adaptation-related issues. Accordingly, the International Centre for Integrated Mountain Development (ICIMOD) organized the Second Regional UIBN Workshop on “Enhancing Science-Based Regional Cooperation” at its headquarters in Kathmandu, Nepal, on 17–18 January 2019. To further expand and strengthen the network’s activities in Afghanistan, a Side Event was organized on the second day of the UIBN workshop: the Third Upper Indus Basin Network – Afghanistan Chapter (UIBN–AC) Meeting. The main objectives of this Afghanistan Side Event were to review the outcomes of the First UIBN–AC Meeting held in New Delhi in October 2018, discussing the progress made by the UIBN–AC’s Technical Working Groups (TWGs) and exploring the UIBN–AC’s next steps. The Side Event was organized by ICIMOD’s Strengthening Water Resources Management in Afghanistan (SWaRMA) Initiative and jointly implemented by the Governments of Australia and Afghanistan (Ministry of Energy and Water, MEW), ICIMOD, and the Commonwealth Scientific and Industrial Research Organisation (CSIRO).

M. Tayib Bromand, Co-Coordinator of the UIBN–AC, facilitated the discussion on the outcomes of the First UIBN–AC Meeting in New Delhi and subsequent progress. The New Delhi meeting approved the following: the UIBN–AC’s governance framework and nominated Coordinator and Co-Coordinator; the Strategic Committee’s (SC) terms of reference; and Coordinator, Co-Coordinator, Advisors, Leads, and Co-Leads of the TWGs. The UIBN–AC’s subsequent activities have increased interest in membership and contributed to the six TWGs. The country chapter has made excellent progress in a short period of time through efficient coordination among organizations and institutions.

During the Third UIBN–AC Meeting, the Leads of TWGs presented their progress and issues faced. TWG 1 gave a detailed presentation on hydro-meteorological data gap, quality of available data, and possible solutions to retrieve missing data. TWG 2 shared a study on the impact of climate change on the Kabul basin’s water resources. TWGs 4 and 6 shared their planned study on adaptation measures integrating social, economic, and gender aspects. Participants of the Side Event also discussed the possible ways for addressing the gap in data quality, availability, and sharing.

The SC Meeting of the UIBN–AC targeted 16 February 2019 for next meeting to be held in Kabul, in which each TWG will present a clear matrix of work plans and a list of additional members.



Background and Objectives

The Upper Indus Basin (UIB), shared by Afghanistan, China, India, and Pakistan, has been facing the impacts of climate change on its water resources and other related sectors. The basin is crucial for all the riparian countries as they have many common challenges and opportunities in managing water resources and water-induced risks such as flood, glacial lake outburst floods, and erosion. The UIBN, with its six TWGs, was established in 2014 to promote coordination and collaboration among organizations working in the UIB for improved understanding of water availability, demand, and associated hazards and to develop gender-sensitive solutions for all stakeholders. The UIBN has been playing an important role in increasing coordination among the researchers working in the region to share their experiences, knowledge, and understanding, thereby effectively addressing the effects of climate change on water resources as well as upstream–downstream linkages.

ICIMOD organized the Second Regional UIBN Workshop to enhance science-based regional cooperation, shape the network's regional role, and agree on a governance structure proposed by the ad-hoc SC. The major objectives of the UIBN Workshop were as follows:

1. Endorse a governance structure that has been finalized by the ad-hoc SC
2. Form a Regional SC
3. Provide strategic direction for the UIBN's future
4. Discuss the functioning of the UIBN's country chapters

The Afghanistan Side Event held on the second day involved 10 participants (including two women from Afghanistan) representing the Ministry of Agriculture, Irrigation and Livestock (MAIL); MEW; National Environmental Protection Agency (NEPA); Kabul Polytechnic University (KPU); and Kabul University (KU).



The Meeting

a. Recap of the First UIBN-AC Meeting and Outcomes

M. Tayib Bromand, Co-Coordinator of the UIBN-AC, shared the outcomes of the First UIBN-AC Meeting. He delineated the UIBN-AC's governance structure, which was endorsed along with the nominated Coordinator, Co-Coordinator, three Advisors, and Leads and Co-Leads of the six TWGs. This meeting importantly approved the UIBN-AC's governance framework. For details of the First UIBN-AC Meeting, please see: [Provide link to the workshop report of the New Delhi workshop](#)

b. Progress of the UIBN-AC after the First UIBN-AC Meeting

Bromand also shared the progress made after the First UIBN-AC Meeting at the Second UIBN-AC Meeting in Kabul:

- Meetings were organized in Kabul with institutions and organizations to introduce the UIBN-AC to them and seek support.
- A coordination meeting of TWGs was organized in Kabul on 22 December where Leads and Co-Leads of the six TWGs shared the progress made after the First UIBN-AC Meeting.
- Leads and Co-Leads also shared the paper to be presented at the Second Regional UIBN Workshop to be held in Kathmandu in January 2019.
- The UIBN-AC was able to increase interest in membership and contribute to the six TWGs. Enhanced coordination among organizations and institutions has allowed the UIBN-AC to make excellent progress in a short period of time.
- The participants raised the following points during the Third UIBN-AC Meeting:
 - KU should be included in the gender study being conducted by TWG 6, and NGOs and the Ministry of Women's Affairs should also be part of TWG 6. The UIBN-AC should invite universities to be involved in TWGs. Potential members from other existing networks and organizations such as from Bam-e-Dunya, Aga Khan Development Network (AKDN), and Himalayan University Consortium (HUC) should be explored to build synergies with a wider range of partners.
 - The research activities of and knowledge generated by organizations working in the Kabul River basin should be compiled and shared.
 - Joining hands with other networks and partners, particularly with government organizations, is important because the UIBN-AC's approach should be sustainable and its scope should extend beyond SWaRMA.



c. Issues, Working, and Reporting Mechanism of the UIBN-AC

Noor Ahmad Akhundzadah, Dean of the Environment Faculty, KU, shared the UIBN-AC's issues, working, and reporting mechanism:

- Climate change is impacting Afghanistan's natural resources, including water resources.
- Many organizations are working in Afghanistan to address the impacts of climate change but there is much overlap in their initiatives because of poor coordination among them. The UIBN-AC must systematically rectify this by assessing relevant organizations' works, improving coordination with them, and streamlining its own activities.
- Each TWG should prepare a matrix of action plan to ensure its sustainability.
- Academia can play a substantial role in the UIBN-AC's research work and should be included in the TWGs.
- The UIBN is a neutral intellectual science network of four countries, and inputs from all member countries should be considered. The UIBN-AC will benefit from collaboration with other country chapters in the network.
- KU wants to build a good academic relationship with HUC and is looking forward to its support in contributing to the UIBN-AC.

d. Progress and Issues of the TWGs

The following four TWGs shared their progress and issues:

TWG 1: Framework of Data Collection, Quality, and Standardization

Fazlullah Durani, Lead of TWG 1, informed that the group had a meeting in Kabul on 22 December 2018 with participants from private-sector, government, and non-government organizations, including the Ministry of Interior Affairs and Food and Agriculture Organization (FAO), which have been generating hydro-meteorological data on the Kabul basin. MEW will coordinate with all organizations and agencies to gather more hydro-meteorological data, and regular meetings will be organized to facilitate this.

Gaps in hydro-meteorological data and related solutions, as well as the quality of available data, were among the issues covered in TWG 1's detailed presentation. The development of a framework to address the data gap was discussed, with the UIBN suggested to take the lead. An exercise will be conducted with organizations to fill data



gaps. Since ICIMOD has GRIDDED data for the previous 30 years, this was suggested as a solution to the data gap. Similarly, given that the Japan International Cooperation Agency (JICA), Danish Committee for Aid to Afghan Refugees (DACAAR), and Afghanistan National Disaster Management Authority (ANDMA) have stations in Afghanistan, their data could also be used to fill the gap.



TWG 2: Climate Change, Variability, Air Pollution, and Black Carbon

Noor Ahmad Akhundzadah, Lead of TWG 2, presented a study on the impact of climate change on the Kabul basin's water resources. He showed the results of the temperature and precipitation trend analysis of the basin based on the available data from 1950 to 2000. He also showed the data gap in which the climate trend was analyzed. The results indicate that precipitation is decreasing and temperature is increasing in the Kabul River basin.

TWG 4: Surface and Ground Water Hydrology and Water Availability and Demand

Fayezur Rahman Azizi, Lead of TWG 4, stated that the group has been unable to fully expand its activities. MEW applied the J2000 hydrological model to study water availability in five sub-basins of the Kabul River basin, whereas MAIL will study water demand for the basin and collect data. TWG 4 will compile a list of research publications on the Kabul River basin focusing on water resources and subsequently use the J2000 model widely.

TWG 6: Managing Gendered Socioeconomic Impacts through Adaptation Measures

Fawad Ahmad Rahyab, Lead of TWG 6, said that the group will mainly concentrate on three adaptation measures – social, economic, and gender – for their study. These adaptation measures will be linked with the interest of the public in the better management of water resources. The study's research questions and methodology have been developed. TWG 6 will hold further discussions at Kabul with the ICIMOD gender team for further improvement of the research design.

e. Research Gaps

The following research gaps were identified by the TWGs:

TWGs 1 and 2:

- Hydro-meteorological data availability and quality
- Standard procedure for hydro-meteorological data collection
- Standard protocol for filling data gaps
- Access to hydro-meteorological data collected by other organizations working in Afghanistan
- Hydro-meteorological data-sharing policy

TWG 3:

- Convince government authorities on the importance of climate and hydrological data
- Create awareness among the upper hierarchies of the government on the UIBN's activities

Participants also discussed the following possible ways for addressing the gap in data quality, availability, and sharing: a) involving more partners in the TWGs and exploring each member's responsibilities; b) developing a standard methodology/approach for data collection and sharing; c) presenting the concerns of TWGs to the Technical Secretariat of Land, Environment, and Water; and d) coordinating with relevant agencies and requesting them to share available data.



f. UIBN-AC SC Meeting

M. Tayib Bromand, Co-Coordinator of the UIBN-AC, talked about the country chapter's long journey ahead and its expected outcomes, which will require close coordination within the TWG, across the six TWGs, and with other stakeholders. This can be achieved through regular meetings and drafting clear procedures and action plans for the UIBN-AC.

The SC drafted the following plan for the UIBN-AC's future activities:

- Devise a clear plan for each TWG based on the title of the research activities, decide members involved in TWGs, and define the time frame of the activities
- Prepare a comprehensive matrix of the UIBN-AC's action plan after finalizing the TWGs' plans
- Organize meetings of TWGs and present their respective action plans
- Leads/Co-Leads of each TWG to present a matrix of action plan to the SC
- Circulate an official letter requesting participation to each member organization for SC and TWG meetings
- Prepare a brochure detailing the UIBN-AC's purpose and activities
- Organize the next TWG meeting for 16 February 2019 in Kabul to share a matrix of work plan and a list of additional members
- ICIMOD should support the publishing of research articles in international journals

Annexes

Annex I: Meeting Agenda

| Time | Programme | Facilitator |
|-------------|---|--|
| 9:30–10:30 | <ul style="list-style-type: none">▪ Recap of the outcomes of the First UIBN–AC Meeting (October 2018)▪ Presentation and discussion on progress made by the UIBN–AC after the First UIBN–AC Meeting▪ Discussion on working and reporting mechanism | Coordinator, Co-Coordicators, and <i>Ayub Shinwari</i> (Programme Officer, SWaRMA) |
| 10:30–12:15 | Technical Working Group – Group Work Detailed discussion on each thematic area and topic of study as discussed in and pursued after the First UIBN–AC Meeting: <ul style="list-style-type: none">- Current activities and progress- Existing gaps in knowledge- How the UIBN–AC will address the gaps | |
| 12:15–13:00 | UIBN–AC SC Meeting and Way Forward | |
| 13:00–13:10 | UIBN–AC Group Photo | |
| 13:15–14:00 | Lunch Break | |

Annex II: Meeting Participants

| No. | Name | Designation | Organization |
|-----|------------------------|--|--------------------------------------|
| 1 | Abdul Manan Azizi | Acting Project Coordinator | MAIL |
| 2 | Aria Neiaees | Manager, Mitigation Climate Change | NEPA |
| 3 | Fawad Ahmad Rahyab | Lecturer/Assistant Professor | KPU |
| 4 | Fayezurrahman Azizi | Director of Water Resources | Water Resources Department (WRD)/MEW |
| 5 | Fazlullah Durani | Hydrologist/GIS Engineer | WRD/MEW |
| 6 | Tayib Bromand | Water Resources and Climate Change Adaptation Specialist | WRD/MEW |
| 7 | Hedayatullah Arian | Head of Hydrometeorology | KU |
| 8 | Noor Ahmad Akhundzadah | Dean of Environment Faculty | KU |
| 9 | Rohullah Amin | Manager of Adaptation to Climate Change | NEPA |
| 10 | Shabir Ahmad Kabirzad | Assistant Professor and Head of Disaster Management Department | KU |
| 11 | Susan Cuddy | Team Leader, Basin Management Outcomes, CISRO Land and Water | CISRO |
| 12 | Nusrat Nasab | Head of Emergency Management | Aga Khan Agency for Habitat |
| 13 | Chanda Gurung Goodrich | Senior Gender Specialist | ICIMOD |
| 14 | Neera Shrestha Pradhan | Water and Adaptation Specialist | ICIMOD |
| 15 | Madhav Dhakal | Hydrological Analyst | ICIMOD |
| 16 | Ayub Shinwari | Programme Officer, SWaRMA | ICIMOD |
| 17 | Sharad Joshi | Associate glaciologist | ICIMOD |
| 18 | Nargis Mansoor | Knowledge Management and Communication Officer – SWaRMA | ICIMOD |
| 19 | Arun Bhakta Shrestha | Regional Programme Manager, River Basins and Cryosphere | ICIMOD |
| 20 | Sanjeev Bhuchar | Theme Leader, Water & Air Ad-Interim | ICIMOD |
| 21 | Indu Chitrakar | Programme Associate, SWaRMA | ICIMOD |

Annex III: Post-Assessment Summary of the Second Regional UIBN Workshop

Ten participants (eight men and two women) from Afghanistan provided their feedback on the Second Regional UIBN Workshop on “Enhancing Science-Based Regional Cooperation”.

Most of them ranked the workshop’s relevance from high to extremely high. Scientific knowledge-sharing sessions including country-level presentations and panel discussions were important for them, and most of them ranked the level of knowledge gained from the sessions as intermediary to advanced (Figure 1).

Assessment of workshop’s relevance and science knowledge gained

Figure 1: **Workshop was relevant to the context and needs of the participants and country**

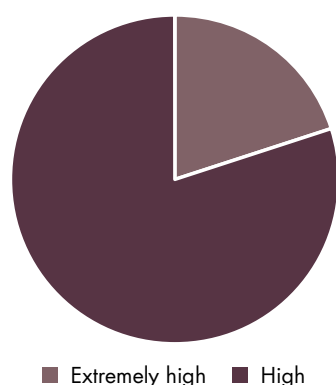


Figure 2: **Key sessions were relevant to the context of the workshop objectives**

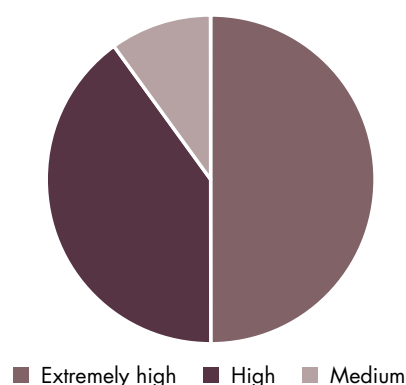


Figure 3: **Presenters and panelists responded questions satisfactorily**

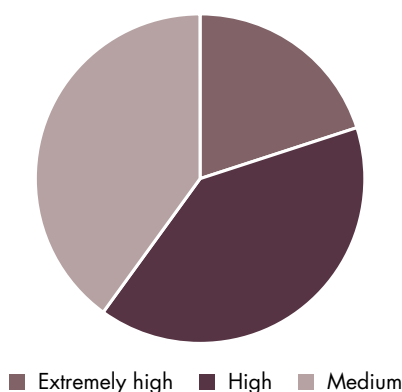


Figure 4: **Workshop facilities and location were appropriate**

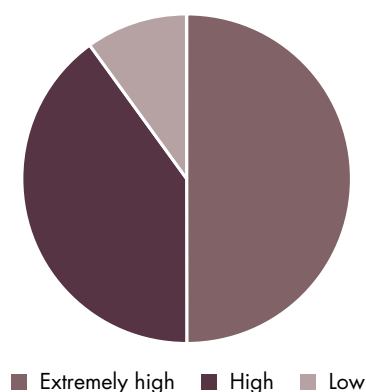


Figure 5: **My expectations were met**

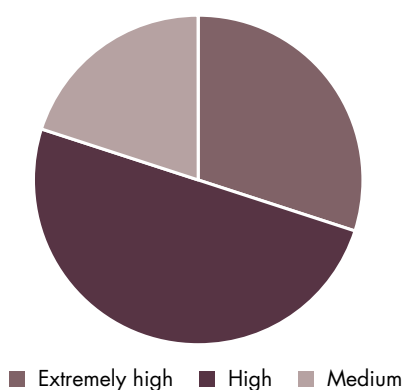
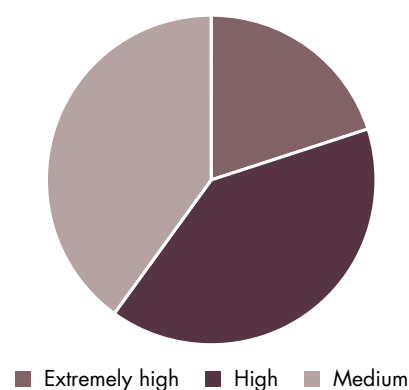


Figure 6: **Workshop was scheduled at the relevant time**



The participants said that the UIBN workshop provided a platform for them to learn more about successful local-level innovative solutions and experiences. It also provided a good opportunity to fill the knowledge gaps. The continuation of such workshop will help address regional challenges. The participants also suggested that the TWG members of all four riparian countries that share the UIB should work collaboratively as a team. This would enhance their capacity to identify cross-country issues and solutions. It was also suggested that the workshop duration should be increased, including more interactions and field visits. Overall, they found the workshop productive and would be highly interested in attending similar workshops in the future.

Figure 7: Knowledge gained from the cross country experience sharing session

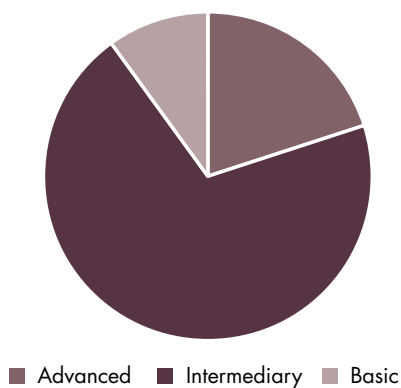


Figure 8: Knowledge gained from the panel discussion on "Climate Change Challenges to be addressed by UIBN"

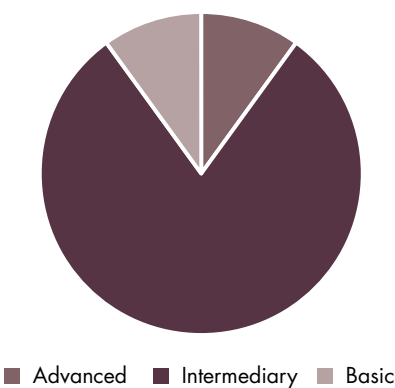
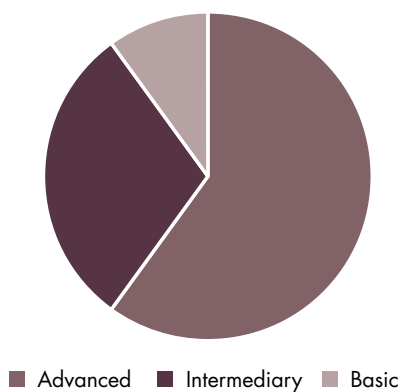


Figure 9: Knowledge gained on the UIBN governance framework









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