



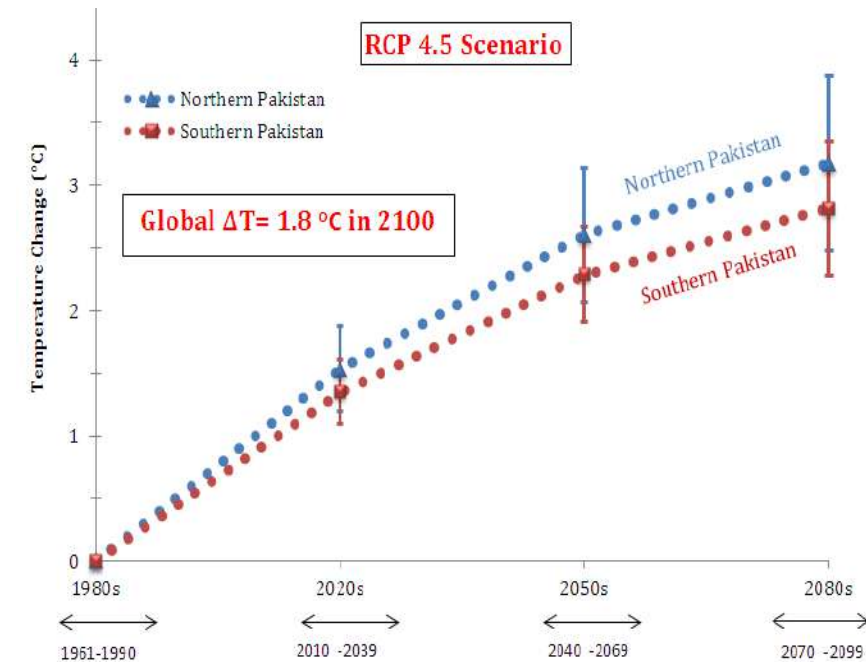
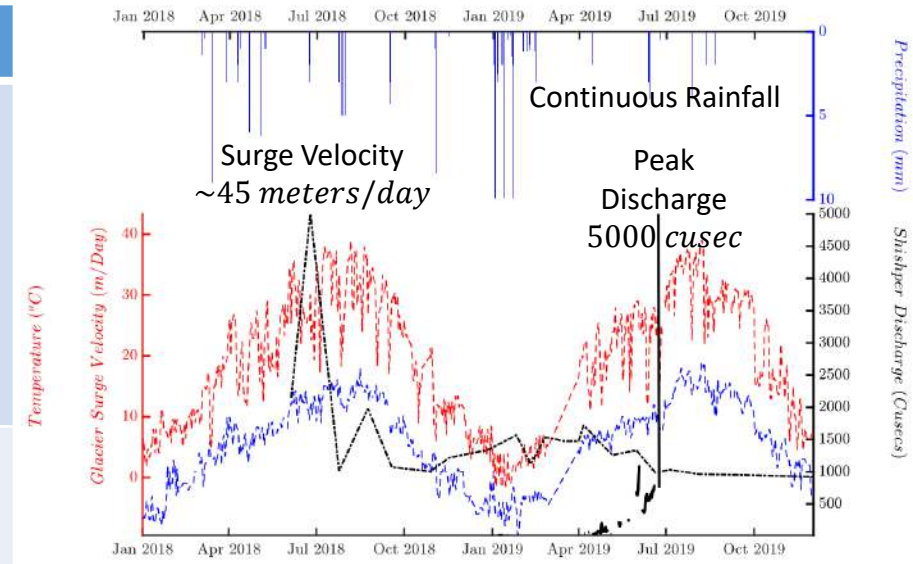
Upper Indus Basin Network

Country progress report

Pakistan Country Chapter

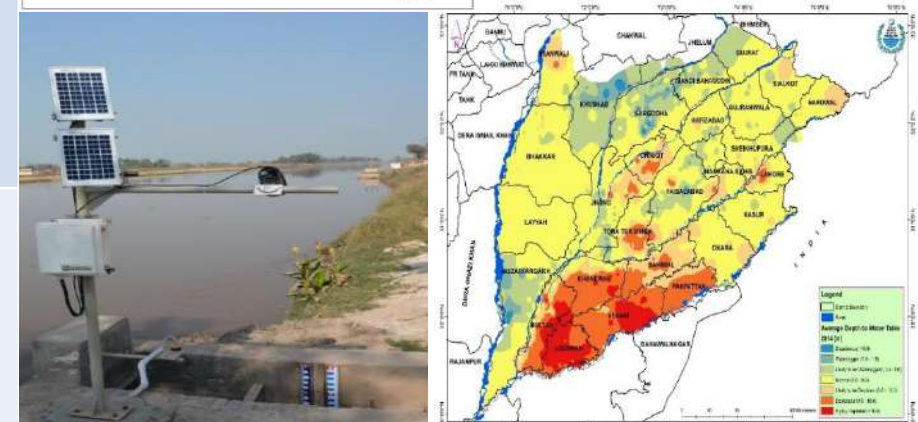
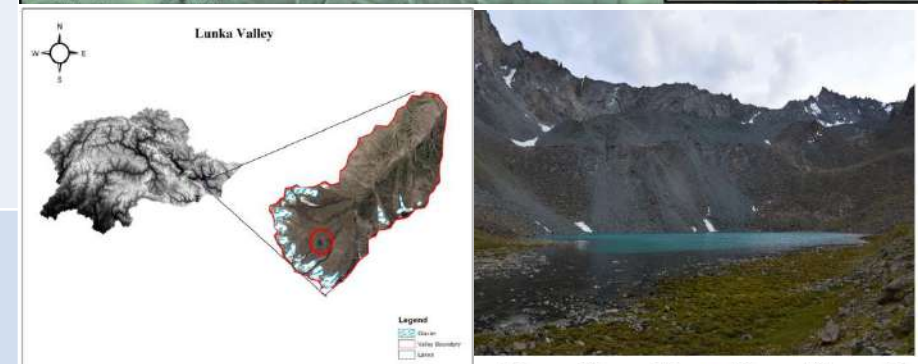
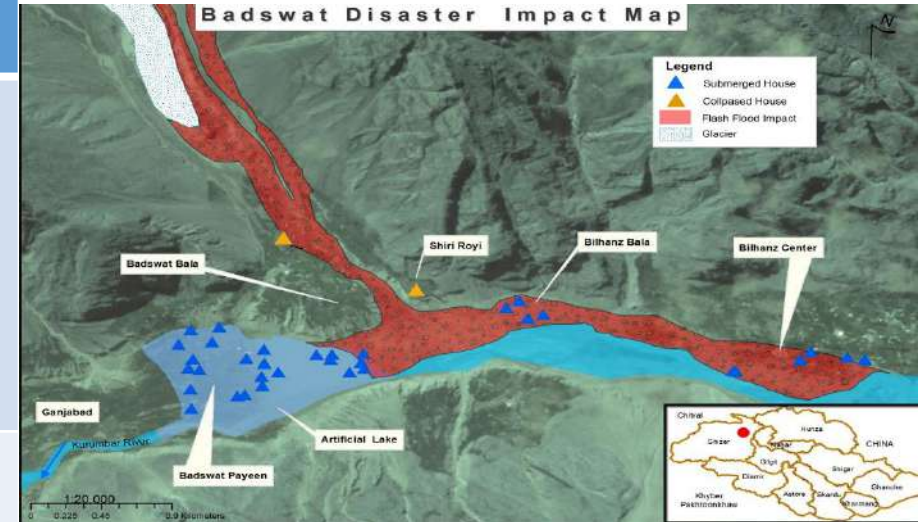
Progress of the 6 Technical working groups (TWGs)

TWG	R.Q	Study	Result	Impact
1, 3 & 5	1 & 9	Hydro-meteorological analysis of Shishper Glacier GLOF activities	Identified different parameters of GLOF activity like surge velocity, volume, area, discharge	<ul style="list-style-type: none"> Activate the line departments for joint studies, DRR & rehab Continuous in situ (AWS+visits) and RS based monitoring
2 & 3	2	Precipitation and temperature relation with altitude/elevation	Higher mountain regions of Northern Pakistan are warming faster than lower elevations	Improved understanding of temp and ppt changes at different elevations for better assessment of glaciers
2	1, 4 & 5	Projection and Attribution of Stream Flow Composition at Mountain Rivers in China and Pakistan (Chitral)	Chitral River Basin: Max ppt = 2000 mm in winter last & spring arrival, highest temp 28°C, ETo of 5mm and discharge 882 m ³ /s in monsoon inception months, more liquid ppt, less snow	Improved understanding of future projections of stream flow in China and Pakistan's mountain rivers



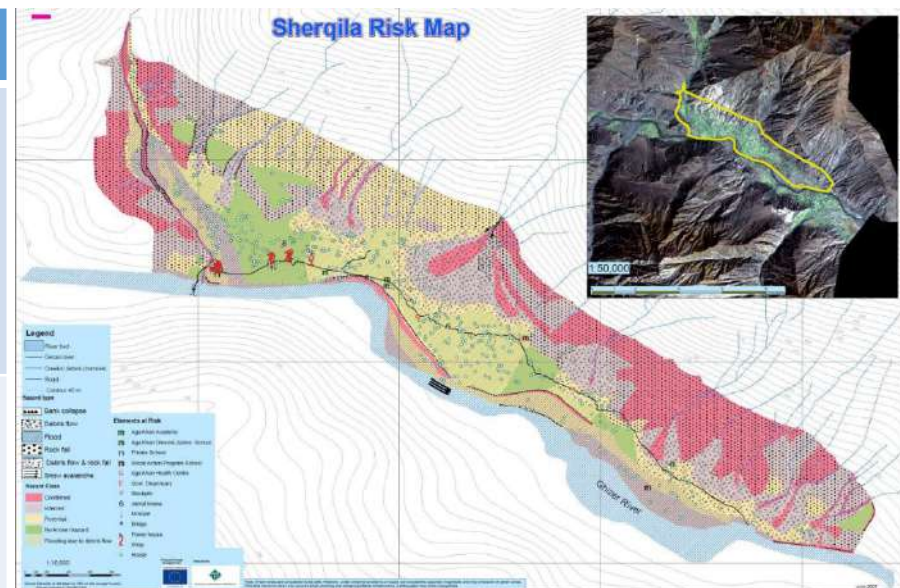
Progress of the 6 Technical working groups (TWGs)

TWG	R.Q	Study/Activity	Result	Impact
3	9 & 10	Impact assessment of Badswat Glacier lake Immit, North Pakistan	Temporal analysis of changes in Karamber Glacier, survey based data studies	Improved understanding of glacier changes, lake formation, GLOF activity and vulnerability assessment of local communities
3	9	Vulnerability Assessment of Glacial Lakes and Feasibility of Early Warning System	Field based vulnerability assessment of 30 glaciers lakes	Selection of most vulnerable valleys and ranking of high risk glacial lakes for GLOF-II project interventions like EWS
4	7	Indus Telemetry by IWMI & PCRWR	Real Time Flow Measurement of Lower Bari Doab Canal ; Upper Swat Canal; Pat Feeder Canal and Kirther Canal	Increased trust among federating units regarding flow data
4	7	Ground water depth and quality spatial maps by PCRWR	Spatial variation of water table depth and quality.	Well prepared data for future ground water management and regulation

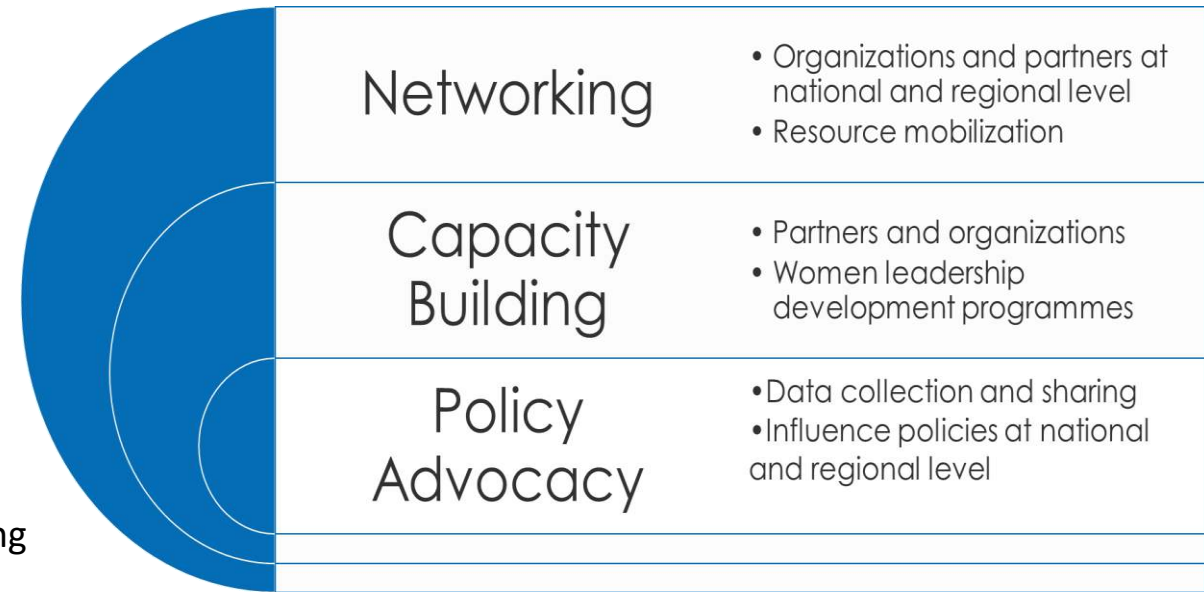
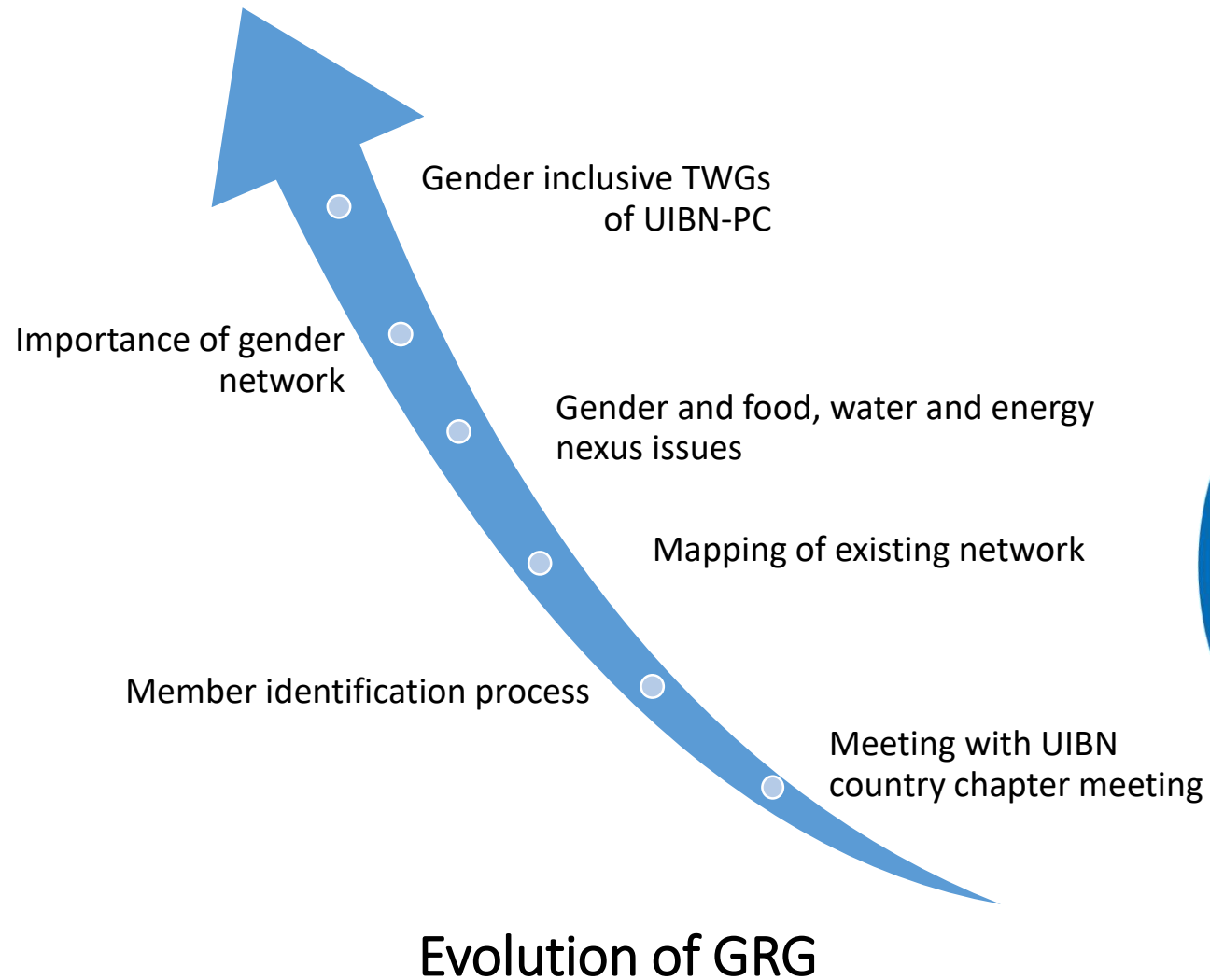


Progress of the 6 Technical working groups (TWGs)

TWG	R.Q	Study/Activity	Result	Impact
5	9	Multi Hazard Vulnerability Risk Assessment Mapping, Gilgit Baltistan	MHVRA of all 10 districts to be carried out by NDMA, GBDMA and NDRMF	Improved understanding of hazard types in GB that will be helpful in devising comprehensive Disaster Risk Management plan
5	8	Extension of Community based Early Warning Systems (CBFEWS) Network by GBDMA, WWF, AKAH with support from ICIMOD	Two CBFEWS installed in Shighar and Ghanche for flash flood by GBDMA & WWF One landslide EWS in Mayoon by AKAH	Enhanced resilience of vulnerable communities The Sherqilla CBFEWS generated 2 nd alarm during July 2019 which helped timely evacuation of local communities
6	8	Improvement of Central Karakoram National Park (CKNP) Management System as Model for Mountain Ecosystems in Northern Pakistan	a. 20 hydro ramp pumps installed in 12 Villages b. 10 solar water pumps installed in 8 Villages	120 acres agriculture based increased. Livelihood of 1086 households increased



Gender Resource Group & Gender Inclusive UIBN-PC



How GRG will Strengthen UIBN

Progress based on intermediate outcomes of UIBN

Progress parameter	Evidence
Increased country ownership	The leads and co-leads of TWGs are mostly from government institutions. More institutions are joining the network like Ministry of Foreign Affairs, Federal Water Management Cell, Federal Flood Commission, UET Lahore, Punjab University etc
Policy level participation in meetings	Higher level policy and decision makers participated in annual meeting of Pakistan Chapter in January 2020.
Regional collaborative projects on science and capacity building	Three bilateral projects between Pakistan and China; a. Interaction of westerly and summer monsoon in upper Indus basin and its impact on water resources b. Projection and Attribution of Stream Flow Composition at Mountain Rivers in China and Pakistan (Chitral) c. The impacts of Climate Change on the glacier merits in Hunza Valley, Comsats and University of Yunnan



Progress based on intermediate outcomes of UIBN

Progress parameter	Evidence
Increased interaction of the network with relevant government set-ups	First four TWGs are led by the representatives of relevant government set-ups
Increased evidence of use of UIBN products for policy, development projects and research	Recommendations of First Annual UIBN-PC meeting were shared with FFC (on request) to be incorporated during design of implementation framework of National Water Policy

Key Recommendations

- Pakistan's dependence on water for its agriculture-based economy needs to be balanced with its projected population growth, which is expected to reach 227 million by 2025³. Along with improved water storage capacities, sensitization for more efficient water use is needed.
- Regional collaboration is key. Investing in joint research on transboundary collaboration for addressing key developmental issues in the Indus basin is crucial given the delicate geopolitical context of the region.
- Each sub-basin region of the Indus basin has its own dynamics which need to be properly captured through better observation. This will require better coordination between nodal ministries and focal points/government departments that have access to these datasets. More monitoring stations are also needed to capture high quality data on atmospheric processes.
- A number of datasets have been identified that can help answer key research questions on climate change, cryosphere dynamics, and changing vulnerabilities. These key questions were identified in earlier UIBN meetings.
- Cross-integration of gender in all research components is vital. A specialized gender resource group (GRG) was organized during the meeting to identify key gender priority areas that would be added to the network's goals in policy advocacy. During discussions, the Asia Foundation and Seeds of Education, Policy, Legal Awareness & Advocacy (SEPLA) Foundation have both assured support to the GRG. The GRG will possibly be linked to groups working on water and energy issues across the country.
- A theory of change (ToC) was deliberated and developed for the UIBN-PC, aiming to provide future direction to the network. The UIBN's technical working groups will refer to the ToC while developing their future plans. During the meeting, key guiding questions on what needs to be done to achieve strategic results were discussed, and the results have been captured in the proceedings for reference.
- Considering the range of expertise and representation from government organizations, the participants discussed whether the UIBN country chapters can serve as a think-tank for their respective governments to advise on issues related to climate change adaptation, water management, and disaster risk reduction. Discussions also covered the possibilities of integrating the UIBN-PC in the national water policy implementation framework and for the country chapter to act as an advisory forum on issues related to water and disaster management.
- The UIBN-PC suggested exploring avenues for housing the country chapter in the ministry or an institutional partner to encourage stronger ownership from key government stakeholders.

Future plans for the country chapter

Particular	Evidence
Future plan to contribute to the intermediate outcomes of UIBN	Each TWG developed its short term, medium term and long term action plans to contribute to UIBN outcomes
How is the country chapter thinking of sustainability?	<ol style="list-style-type: none"> 1. Each TWG aligned its future actions plans with the government policies as government is focusing on implementation of national policies 2. Country specific proposals based on joint proposal developed by ICIMOD for funding opportunities 3. Inclusion of private sector who are main beneficiaries like Nestle, Pepsi etc 4. Wider dissemination of UIBN through media
What are your plans for cross-country collaboration (joint research, capacity building)?	Common issues like pollution/black carbon/smog/comparative study of socio-economic challenges and solutions linked to climate change affects with any member country having similar context
What are proposed country chapter meeting dates for 2020 (dates, venues/virtual)	To be decided



Thank you