PAKISTAN COUNCIL OF RESEARCH IN WATER RESOURCES
MINISTRY OF SCIENCE & TECHNOLOGY
GOVERNMENT OF PAKISTAN

Nanjing Peace Forum 2021 "Living in Harmony with Nature for Peace"

Report on Expert Panel Discussion on "Water for Peace"
Islamabad, October 06, 2021

Project Title:	Capacity Building of Water Managers in Pakistan on IWRM and Cultural Mapping Keeping in View Karez Cultural Landscape (Phase-2)
Timeframe:	October 06, Islamabad
Funding Agency:	United Nations Educational, Scientific and Cultural Organization (UNESCO)

Khayaban-e-Johar, Sector H-8/1, Islamabad – Pakistan
October, 2021

Contents

1. Background and Objectives 1

2. Proceedings 1

3. Discussion and questions raised by the participants 5

4. Key Messages 6

Annexure-I: List of Panelists 8

Annexure-II: Distribution of Shields to the Panelists 9

Annexure-III: List of Participants 10

1. Background and Objectives

Water is a shared natural resource whereas competing demand for this resource may generate a conflict or establish a partnership. Limited water reserves and its potential of generating indifferences among the stakeholders is much discussed and debated. Its potential for resolving the issues and even achieving the sustainable management of resources invokes a thought process. Water is a self-generating natural resource, and its rights may have distributed among various sectors of use and stakeholders as per their requirements according to their geography, quantum and quality. This integrated way of thinking among the stakeholders help resolve many issues related to water resources management, development, and governance at basin scale.

Keeping in view the above, an expert panel discussion was organized in partnership with UNESCO Beijing and Pakistan offices and Pakistan Council of Research in Water Resources (PCRWR) as a link to Nanjing Peace Forum 2021 "Living in harmony with nature for peace". Water for peace is one among many themes of this forum. This forum is a joint initiative of the UNESCO Beijing Office, the Chinese National Commission for UNESCO, the Information Office of Jiangsu Provincial Government, and the Nanjing Municipal Government. This panel discussion was focused on the following objectives:

i. To engage in a thinking process for regional cooperation in water sector
ii. To discuss water governance strategies for the resolution of transboundary water disputes

Keeping in view the vastness of this subject, panelists from different stakeholder organizations were invited involving academia, youth and women representative, public policy expert, development partners, international organizations for water resources research, high level federal government representation and community members **(Annexure-I)**. The targeted audience of this session were representatives from federal and provincial government organizations, academia, youth members and students.

2. Proceedings

The discussion was knitted around the moderated discussion facilitated by the Chairman PCRWR, Dr. Muhammad Ashraf. The ice-break of the event was a video message by Dr. Shahbaz Khan, UNESCO Representative to People's Republic of China, the Democratic People's Republic of Korea, Japan, Mangolia, Republic of Korea. He remarked that the history of conflicts on water is as old as the human civilization. Future wars will be on water as it happened in past as well but we can cooperate with each other regarding the use of water. The earliest war on water was about 4500 years ago between Mesopotamia cities, Lagash and Umma, now in southern Iraq. Are we going to same situation again? He added that increasing population, our ability to pollute water resources, climate change and

disregarding of eco system etc. are the drivers of prevailing water issues. Due to globalization, information can spread quickly and there is less time to react. We have little resources and climate challenge is going to be bigger and bigger. The rift between human needs and eco system is becoming intense. We need to turn our water conflicts into water cooperation that we can achieve by working together and considering the following points:

i. Water, culture and our perspective needs to be linked in a better way. We should think of water as a fragile resource instead of a commodity.
ii. Scientific evidence based thinking can help everyone to gain rather than to loose and will create a win-win environment.
iii. Relationship between water experts i.e. ground water hydrologist, surface water hydrologist and water managers etc. needs to be improved to produce better understanding for policy makers.
iv. There is a need to work in close coordination to strengthen the capacity, law, and policies. The people who can better understand and help in the implementation of agreement and treaties should be encouraged to come forward.
v. The Indus Water Commission needs to develop a mechanism that can make Indus Water Treaty to work better for the country.
vi. We should think of water as a basic human right. Unless we think about our basic human rights we will not be able to cross our boundaries for more rationalization.

The moderator opened the discussion session by welcoming the panelists and the participants. He highlighted the background of the discussion and mentioned that history of human being and major civilizations were settled around the water. Many nations used the water as weapon for conflict or peace. In case of Pakistan, 74% water is transboundary. Surface water distribution between India and Pakistan is as per Indus Water Treaty, signed 1960. There are some conflicts in upper and lower riparian. Water within the system is distributed through Pakistan water apportionment accord, 1991 and still there is mistrust between the provinces. There is also a competition among the various users like agriculture, domestic, industrial and environmental use. He further anticipated that the today session would shed light that how we can use water for peace. Can it minimize the conflicts and make this commodity sustainable without compromising the demands of others and without compromising the demands and needs of our present and future generations?

Figure-1: Expert Panel Discussion on "Water for Peace"

Figure-2: Participants of Expert Panel Discussion on "Water for Peace"

The moderator floated the question that how the prevailing water conflicts, internal or transboundary, can be turned into cooperation and partnerships? Mr. Ahmad Kamal, Chairman, Federal Flood Commission (FFC) shared his thoughts that there should be a mechanism of Integrated Equitable Water Management (IEWM) and Indus Water Commission may be transformed into a larger National Trans-boundary Water Organization. He further added that the conflicts between the provinces could be minimized and turned to peace by water accounting system i.e. how much water enters into the system and how much are the losses. Accordingly, water should be distributed equitably. One should also pay attention to water accounting of AJK and GB which is

unknown and is not part of Water Apportionment Accord (1991). Moreover, he emphasized on the involvement of community and dissemination of scientific knowledge.

In response to a question of technical interventions e.g., telemetry system and their success to resolve the mistrust issues on water distribution among the provinces, Dr. Mohsin Hafeez, shared that the water measurement should be automated. He further added that one of the reliable ways to measure water is telemetry system (without human error / interaction). Telemetry system measures the depth and discharge according to our desired frequency. By adopting the telemetry system, we can be able to get real time data. Display screens can be installed in the offices of all stakeholders to display the depth and discharge measured at rivers / canals through the telemetry system. This will ensure the transparency. He emphasized that if we want to convert the conflicts into peace, all stakeholders and community should be convinced using the scientific data and human involvement in the data collection should be minimized.

The moderator acquired from the President Youth Parliament regarding the role of youth in resolving water conflicts. Engr. Ubaid Qureshi, President Youth Parliament (PYP) mentioned that Pakistan is going to be water-stressed country by 2025. Pakistan has about 68% of the population under the age of 30. It was not bothered in past to add relevant young professionals as a stakeholder during policy making. No mechanism is available to integrate the current policies at gross root level. The Vision 2030 agenda for sustainable development calls for a society of engagement and partnership, and youth will have a decisive role to play in the implementation and monitoring of the SDGs.

Dr. Arjumand Nizami, Country Director, Helvetas and representative of women was asked regarding the choice of "bottom up or top down" approach and which suits the best to enable water cooperation at national scale? She remarked that in the past, a single strategy was deployed for solution of most of the problems but one solution does not fit all. She emphasized on the community involvement. She further added that with improved land record and land revenue, a lot of issues will get resolved as it has been learnt from a project in merged areas of FATA. She also mentioned that our supply is almost constant but water demand could be reduced by increasing the efficiency of water use in agriculture and other sectors. She further added that every department has his own research wing and is doing research in isolation. Critical research is required that should be independent to foresee the possible solution of the identified problems.

Upon the question of role of academia and research for building trust among the stakeholders, Brig. Fayyaz Hussain Shah (Retd), PhD Scholar PCS, NUST Islamabad said that the university could play its role by doing critical research to identify the core problems and issues behind the conflicts and its solutions. He also mentioned that recently India has come up with an idea of renegotiation on Indus Water Treaty in light of climate change scenario. He warned that the response of Indian parliament over water policies is much quicker than the counterparts in Pakistan. He also emphasized that one of the main

reasons behind the conflicts is that 80% water comes in 20% time, which is a great challenge.

On a question of "community inclusiveness for the resolution of water conflicts", Dr. Rashid Aftab, Director, Riphah Institute of Public Policy, Islamabad responded that governance refers to human involvement approach and not a one-side control policy. In similar way, the peace is freedom from disturbances. Peace, in terms of water has different perspectives i.e., political, social, economic and legal etc. He mentioned that the water apportionment document existed in the subcontinent since 1901 as Indian Irrigation Act. We should also try to do our level best to adopt technology solutions. The component of human inclusiveness is missing in our policies whether on project or policy level resulting in trust deficit. He further added that a forum should be developed for deliberation on policies. Moreover, end users centric approach should be adopted.

On perspective of community inclusiveness, Mr. Ahsan Khan (progressive farmers, local community member) stated that he is a practicing farmer since decades. He has seen construction of Tarbela dam and its effects on lower riparian. Then, he has also seen the buildup of Ghazi-Barotha hydropower project (located downstream of Tarbela Dam on the Indus river in District Attock, Punjab) and its effects on communities living on the land between Ghazi-Barotha project and Indus river. They are deprived of their water share for irrigation. Effected people approached the concerned authorities that some alternation solution may kindly be provided to effected area (55 km length) but no solution is provided till today. He also shared his views on high efficiency (drip/ sprinkler) irrigation system and explained that it is not possible to upscale it on irrigated agriculture areas whereas it is a good solution for rain-fed areas with solar system as a power source. He also highlighted the need of implementation of groundwater management policies by government to control the over abstraction of groundwater. He suggested that a subject on efficient use of water should be part of curriculum in our education system (schools and colleges). Furthermore, he suggested that the government should involve the communities while formulating the policies and executing the projects. Since, many issues are not considered by the government agencies, owing to that their policies could not be implemented without the involvement of communities. The involvement of community will result in identification of core issues of any particular area. In this way, a fruitful and doable solution could be implemented for the efficient and equitable distribution of water over the command areas.

3. Discussion and questions raised by the participants

After talk by the panelists, the participants also made following comments, suggestions and questions:

i. Water stress and competition have been increased among various users. There are two tools to address these conflicts viz. science and policy. In this scenario, how the government foresee the adoption of these tools and what are the drivers?

ii. The Indus Water Treaty (1960) should be revisited in the wake of climate change scenario.

iii. Communities do not trust to government departments whether the projects have any benefits to them or not.

iv. Decisions may be backed-up be proper research to resolve conflicts among the provinces.

v. There are two aspects of the picture; one side is community who is unaware of the big picture (scarcity of water, pollution, groundwater depletion, etc.) and concerned only their local issues; other side is government institutions who are responsible to implement policies and strategies. How can we bring both sides into one page to resolve the issues?

vi. Punjab Irrigation Department has established a water accounting system for irrigation network in Punjab. How can such system be developed among the provinces?

vii. Research organizations and academia must work closely to update their respective knowledge and understand the ground realities.

4. Key Messages

Following key messages can be extracted from the discussion among the panelists and participants:

a) Transforming conflict into peace can only be possible by trust building through evidence-based knowledge and equitable sharing, use and reuse of our water resources. In this regard, research can play an important role.

b) Provincial water conflicts can be resolved by an effective water accounting and water auditing system. It should work in a wholesome single integrated approach dealing with KP, Punjab, Sindh, AJK, GB as well as federal capital for urban water aspects.

c) Water resource monitoring through telemetry system may be added in national water and climate framework for the real time data availability and to develop the trust between the users

d) Community may be actively involved in policy framework, project development and implementation phases.

e) Based on the identified problems, customized strategies should be applied to solve different issues of different areas related to the water sector on sub national level through inclusiveness negotiation.

f) Proactive approach, good governance and political will is needed to resolve transboundary issues with neighboring countries.

g) People to people contact is a basic element to resolve water conflicts. Therefore, dialogue among stakeholders should be encouraged and promoted.

The session concluded with the distribution of souvenirs to the expert panel (**Annexure II**).

Annexure-I: List of Panelists

1. Dr. Muhammad Shahbaz Khan, Director UNESCO, People Republic of China and Democratic Republic of Korea
2. Dr. Mohsin Hafeez, Country Representative, International Water Management Institute (IWMI), Pakistan
3. Engr. Ahmad Kamal, Chief Engineering Advisor/ Chairman Federal Flood Commission, Islamabad
4. Dr. Rashid Aftab, Director, Public Policy Institute, Riphah International University, Islamabad
5. Dr. Arjumand Nizami, Country Programme Director Pakistan, Helvetas Swiss Inter-cooperation, Islamabad
6. Brigadier (retd) Fayyaz Hussain Shah, Institute of Peace and Conflict Studies, NUST, Islamabad
7. Mr. Ahsan Khan, Progressive Farmer, Local community member, Attock
8. Mr. Ubaid Qureshi, President, Youth Parliament, Islamabad

Annexure-II: Distribution of Shields to the Panelists

Annexure-III: List of Participants

Sr. #	Name & Designation	Organization
1	Dr. Noor Khan, Professor	UET, Lahore
2	Mr Kifayet Zaman, Director General	Federal Water Management Cell
3	Mr Zameer Ahmad Soomroo	Water Expert, ADPC
4	Mr Abdul Wajid Rana, Country Representative	IFPRI, Pakistan
5	Mr Muhammad Riaz, Director General	PMD
6	Mr Ziaul Haq, Deputy Director	PCRWR
7	Ms. Bareerah Fatima, Deputy Director	PCRWR
8	Ms. Farah Naz	PCRWR
9	Mr. Anwaar Ahmed Qureshi, Anthropologist	PCRWR
10	Engr. Ayuob Ahmed Soomro, Additional Sec (Tech)	Irrigation Department, Govt. of Sindh
11	Ms. Erum Gul, RO	PCRWR
12	Mr. Hafiz Muhammad Yasir, Chief Engineer South	Irrigation Department, KP
13	Mr. Raza Shah, NPO	UNESCO Office, Islamabad
14	Mr. Mohsin Masood, Assistant Director	PCRWR
15	Ms. Sadia Bibi, Student	PCRWR
16	Ms. Sumaira Farrukh, Assistant	PCRWR
17	Mr. Abdul Rashid, Civil Engineer	WAPDA, Lahore
18	Dr. Zakir Hussain Dahri,	NRD, PARC
19	Mr. Muhammad Farooque, Sr. Engineer	WAPDA, Lahore
20	Ms. Sajida Shamsi, Secretary General	PNCU
21	Dr. Muhammad Riaz, Director Monitoring (PMIU)	Irrigation Department, Lahore
22	Mr. Ahser Hayat, Executive Engineer, Irrigation Div	Irrigation Deptt, Govt. of Balochistan
23	Mr. Alamgir Khan	Hazaara University
24	Mr. Nazar Gul, Deputy Director	PCRWR
25	Mr. Faakhar Raza, Director	PCRWR
26	Mr. Naveed Iqbal, Director Hydrology	PCRWR
27	Mr. Dilshad Arshad, Deputy Director (Incharge)	PCRWR
28	Mr. Shafiq ur Rehman, Senior Research Officer	PCRWR
29	Muhammad Riaz, Director General	Pak. Meteorological Deptt.
30	Prof. Dr. M. Abid	COMSATS University, Wah Cantt
31	Mr. Muhammad Arshad, Deputy Director	PCRWR
32	Mr. Ishtiaq Alam	Planning Commission
33	Mr. Muhammad Ismail	ICIMOD
34	Ms. Saiqa Imran, Senior Research Officer	PCRWR
35	Mr. Sher Jahan	Water Management, GOGB
36	Mr. Abdul Samad	Student
38	Mr. Usman	Student
39	Mr. Almas	Student
40	Mr. Umer Saeed	Student

41	Ms. Afifa Kanwal	Student
41	Ms. Maryam Bibi	Student
42	Ms. Yusra Ayub	Student
43	Ms. Uzma Moeen	Student
44	Mr. Reza Shah	UNESCO
45	Mr. Faizan ul Hasan	PCRWR
46	Dr. Naveel Iqbal	PCRWR
47	Dr. Hifza Rasheed	PCRWR
48	Ms. Mufeezah Ahsan	PCRWR