



O/o CEA/CFFC
M/o Water Resources



SDG 6.5.1 Stakeholder Consultation Report Pakistan

September 28, 2023

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Pakistan

in collaboration with

Pakistan Water Partnership (PWP)

Stakeholder Consultation Report on SDG 6.5.1

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Stakeholders Consultation Report on SDG 6.5.1

Executive Summary

The office of Chief Engineering Adviser/Chairman Federal Flood Commission (O/o CEA/CFFC), jointly with Pakistan Water Partnership (PWP) conducted a multi-stakeholder consultation to assess the degree of implementation of Integrated Water Resources Management (IWRM) i.e. Sustainable Development Goal (SDG) Indicator 6.5.1 in Pakistan for reporting cycle 2023. The National Focal Point for SDG 6.5.1, Mr. Ahmed Kamal, Chief Engineering Adviser/Chairman Federal Flood Commission (CEA/CFFC) initiated the stakeholders consultation process in June 2023 through sending official communications (via email and mail) to key stakeholders asking them to complete an online questionnaire through IWRM portal. Stakeholders included federal and provincial government organizations, academic institutes, public and private sector organizations and NGOs. Accordingly, 32 responses were received within the deadline of August 15, 2023.

Following the above, O/o CEA/CFFC and PWP jointly organized a multi-stakeholder workshop in Islamabad on August 21, 2023 at Best Western Hotel, Islamabad which was funded by UNEP-DHI Centre on Water and Environment through Global Water Partnership (GWP). Invitations were sent to the above mentioned stakeholders along with the survey questionnaire; few participants from remote areas who work at grass root level in areas with severe water scarcity, were also invited. More than 40 participants attended the workshop in person, whereas some participants also attended the workshop online through a dedicated link provided by the O/o CEA/CFFC.

Mr. Sardar Muhammad Tariq, Chief Executive Officer, Pakistan Water Partnership opened the workshop and explained the participants about SDG Indicator 6.5.1. He recalled the efforts of Global Water Partnership (GWP) to include water and sanitation as a separate goal in Sustainable Development Agenda 2030. He spoke about the concept of IWRM and informed that Pakistan has been working on IWRM even decades before the term IWRM was coined in 1996. He mentioned that the Water and Power Development Authority (WAPDA) Act of 1958 explicitly emphasizes on coordinated development and management of water, land, and energy resources, which is the essence of IWRM. Referring to country's first ever National Water Policy (NWP) approved in April 2018, he stated that policy guidelines have been prepared on the concept of IWRM. He then explained the application of IWRM principles in the context of Pakistan by stating that the total water entering Pakistan through transboundary rivers are governed under Indus Water Treaty (IWT) of 1960 between India and Pakistan and distributed among the provinces according to the Inter-Provincial Water Apportionment Accord of 1991. Both Indus Water Treaty 1960 and Inter provincial WAA 1991 are governed by the inbuilt dispute resolution mechanism.

The Chief Executive Officer, Pakistan Water Partnership further clarified that within the Provinces, all sub sectors, using water, are provided share based on IWRM pillars i.e. social equity, economic efficiency and environmental sustainability. The final outflow caters to maintain river biodiversity before discharging into the sea. **Figure 1** highlights the concept of IWRM being practiced in Pakistan.

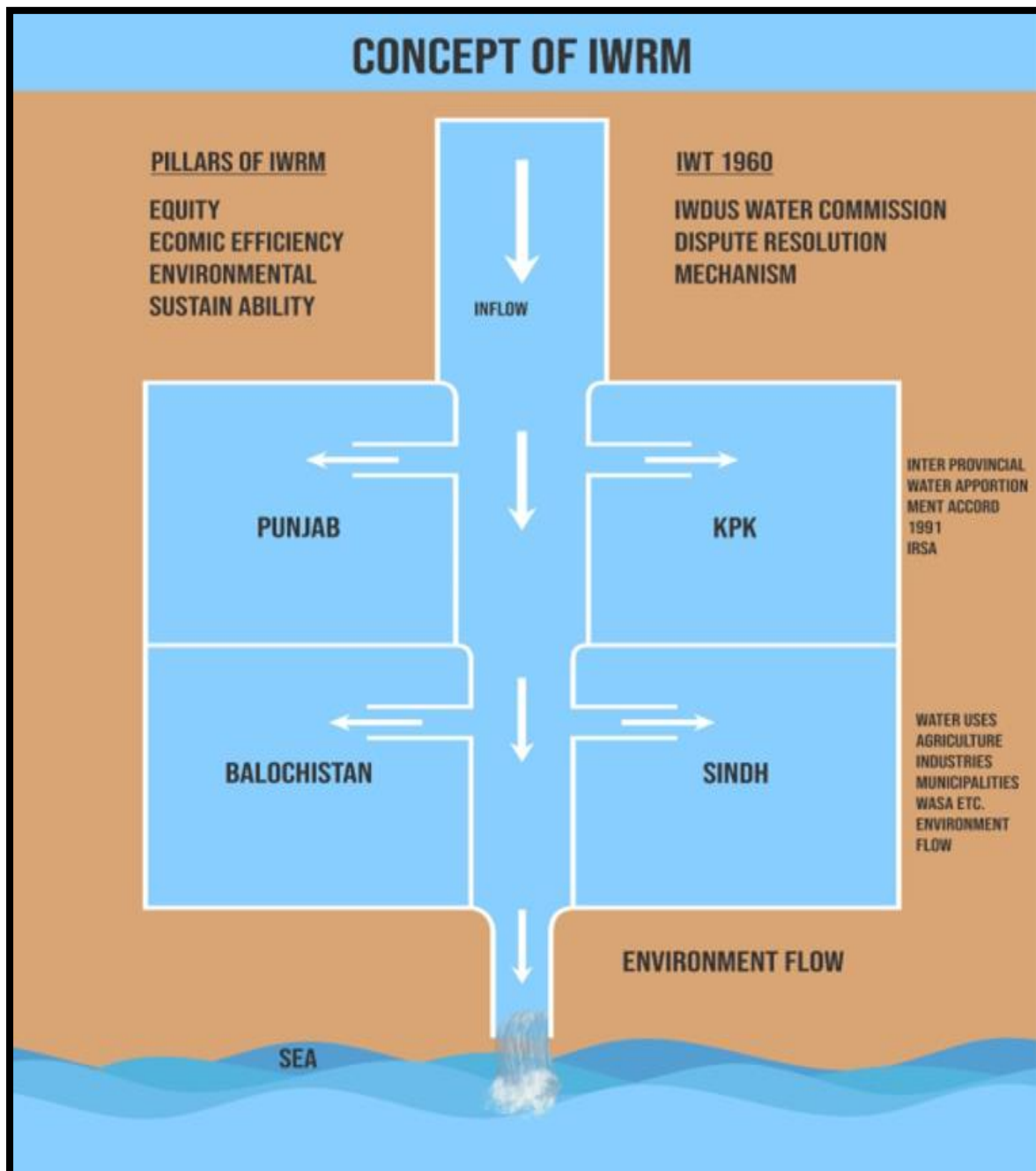


Figure 1: IWRM Principles as applied to Pakistan

Mr. Ahmed Kamal, CEA/CFPC presented the recent developments in the water resources sector of Pakistan. He stated that Pakistan has become highly vulnerable to climate induced natural disasters i.e. droughts/ heatwaves, cyclones, floods and erratic monsoon rains like the unprecedented above-normal rains and subsequent heavy torrential and pluvial flooding experienced in 2022 monsoon, especially in the provinces of Sindh and Balochistan. He pointed out that one of the important lessons learnt from 2022 floods was to ensure in future the sustainable spatial water & land use planning and improve flood forecast & early warning system. For this purpose, a dense telemetry network of instruments is direly needed for acquiring real time hydro- meteorological information. Federal Flood Commission (FFC) alongwith WAPDA, PMD, Provincial Irrigation Departments (PIDs) and other stakeholders, thus

formulated the country’s first ever National Master Plan for Flood Telemetry for improved flood forecasting and real time warning dissemination in the country. The expanded telemetry network will ensure that exact/real-time estimate of flood discharges, entering from secondary and tertiary rivers into River Indus and its main tributaries (Jhelum, Chenab, Ravi, Sutlej & Kabul rivers), is available to PMD/FFD Lahore for precise flood forecasting & issuance of flood warning. Besides, this regular supply of real-time flow data will also ensure to have fair water balance in the country.

Regarding implementation process of National Master Plan for Flood Telemetry, National Focal Person apprised that Phase-I of the Telemetry Master Plan (of installation of 457 out of total 707 stations) has been included in umbrella PC-I of updated Flood Protection Sector Project-III (FPSP-III) approved by ECNEC¹ on June 27, 2023. The updated FPSP-III is Phase-I of updated National Flood Protection Plan-IV (NFPP-IV) which is being updated with support from Asian Development Bank in line with the directions of the Government of Pakistan issued in wake of 2022 floods. The updated NFPP-IV would, inter alia, include climate resilient interventions like Early Warning & Telemetry Systems, NbS², Urban Flood Risk Management, Structural Measures for Riverine, Pluvial, Coastal Flooding and GLOFs³ (e.g. Dikes, Dams, and Drainage), Hill Torrents Management works and the Institutional & Legal Framework.

The Workshop facilitator, Mr. Muhammad Ukasha, briefed the participants on the methodology for scoring the SDG Indicator 6.5.1. Following this thirty three (33) survey questions covering four (04) dimensions of IWRM were scored in two (02) facilitated discussion sessions. During facilitated session, detailed discussion was carried out to score each question. All questions were scored with the agreement of the participants. The overall score of SDG Indicator 6.5.1 for Pakistan came out to be 63, which is 8 points better than survey of 2020. However, the implementation status remained at “Medium-High” level. **Table 1** compares the section wise scores of surveys conducted in 2020 and 2023.

Table 1: Comparison of sectionwise scores for surveys conducted in 2020 and 2023

Section	Average Score for 2020	Average Score for 2023
Section 1: Enabling Environment	61	76
Section 2: Institutions and Participation	60	67
Section 3: Management Instruments	49	54
Section 4: Financing	53	55
Indicator 6.5.1 score = Degree of IWRM implementation (0-100)	56	63

¹ Executive Committee of National Economic Council

² Nature based solutions

³ Glacial Lake Outburst Floods

The participants discussed in detail the recent interventions in water sector including approval of implementation framework of the first ever National Water Policy (NWP) and its emphasis on IWRM implementation at different levels. The forum discussed the current conditions of transboundary water management arrangements and recommended measures to improve them. The participants noted that stakeholder consultations for water resources planning, development and management has substantially increased in last few years, e.g. for formulation of (i) NWP Implementation Framework, (ii) updated National Flood Protection Plan-IV, including for its Phase-I i.e. updated FPSP-III; (iii) National Master Plan on Flood Telemetry; (iv) National Master Plan on Flood Drainage; & (v) National Watershed Management Plan etc.

Institutional arrangements for implementing IWRM were discussed and efforts being taken for capacity building of Ministry of Water Resources and associated departments (PCIW, O/o CEA&CFPC, IRSA and PCRWR), to lead effective IWRM implementation, were appreciated and encouraged. The forum discussed that monitoring of surface water is being improved at most of the levels, however, monitoring of groundwater is unsatisfactory. The participants appreciated increased role of gender in IWRM activities and suggested to further strengthen the mechanism in order to make planning process more inclusive. However, the participants were concerned about the arrangements made so far for control of water pollution and protection of water-related ecosystems.

In the concluding remarks, Mr. Sardar Muhammad Tariq, CEO PWP thanked all the participants for making the workshop successful. He suggested that Ministry of Water Resources to play active role in collecting information on efforts and financial support by the Government and donor agencies for improving the level of implementation of sustainable development goals in Pakistan. The Ministry's response was positive and encouraging. Mr. Ahmed Kamal, CEA/CFPC, National Focal Point for SDG 6.5.1 summarized the key findings.

The participants took active part in assigning scores to the survey questions and setting national targets to be achieved by 2030. Completed survey instrument and its annexes representing the collective effort of the multi-stakeholders participation can be found in the end of the report as SDG651_2023_IWRM_Survey_EN_filled.

1. Preface

The United Nations Environment Programme (UNEP) plays a Pivotal & Key Role in tracking the overall progress and supporting UN Member States for achieving 17 SDGs and associated 169 targets through 244 indicators. SDG-6 is a dedicated goal on water and sanitation to ensure availability and sustainable management of water and sanitation for all. It includes 8 targets and associated 11 indicators. Indicator 6.5.1 tracks the degree of Integrated Water Resources Management (IWRM) Implementation in countries and the National SDG 6.5.1 score represents a degree of Implementation of IWRM on a scale of 0 to 100 (Very low to Very high).

Ministry of Water Resources on February-18, 2020 designated the Chief Engineering Advisor for Ministry of Water Resources and Chairman, Federal Flood Commission (the CEA & CFFC) as the National Focal Point to report Pakistan's progress to UNEP on SDG Indicator 6.5.1, as a degree of Integrated Water Resources Management (IWRM) Implementation. To get feedback of the key stakeholders on SDG 6.5.1 Questionnaire, organizing a consultative workshop is an essential requirement set by the UNEP.

Quality progress on Indicator 6.5.1 for Pakistan was collected through a Survey Questionnaire available at <http://iwrmdataportal.unepdhi.org/currentdatacollection> as 'SDG 6.5.1 Survey Instrument 2023'. Two similar workshops were also successfully organized in Islamabad in 2017 and 2020 by the Office of CEA/CFFC, Ministry of Water Resources in collaboration with Pakistan Water Partnership (PWP).

For conducting SDG 6.5.1 Survey for 2023, a communication was made with UNEP on March 16, 2020 seeking collaboration of PWP; a country chapter of Global Water Partnership (GWP) which focuses on supporting countries to achieve the water-related Sustainable Development Goals (SDGs), particularly via SDG 6.5 target on IWRM.

Adopting a proactive approach, sample response on 'SDG 6.5.1 Survey Instrument 2023' alongwith supportive material was shared with all concerned federal and provincial organizations on July 21, 2023 requesting them to prepare their similar institutional inputs through an online survey available at IWRM portal for finalization during the Consultative Workshop. Besides consistent follow up of the case through reminders dated August 10, 2023 and August 16, 2023, preliminary inputs were received from sizable number (32) of organizations.

In order to obtain cogent feedback from all the main stakeholders, in collaboration with Pakistan Water Partnership (PWP), a one-day Consultative Workshop was organized by O/o CEA & CFFC, Ministry of Water Resources on August 21, 2023 at Best Western Hotel, Club Road, Islamabad.

The honorable Secretary, Ministry of Water Resources was invited to grace the occasion as Chief Guest and formally inaugurate the Workshop, however, because of a major shuffle in federal bureaucracy, he could not come. Key findings of the consultative conference and Way Forward regarding assessment and monitoring of SDG indicator 6.5.1 in future are described in the succeeding sections of this report.

2. Conclusions from facilitated discussions on Section 1: 'Enabling Environment'

The forum was apprised that implementation framework for the first ever National Water Policy (NWP) has been approved. Given that NWP is entirely based on the evolvement of Integrated Water Resources Management (IWRM) at all levels, implementation strategy and framework for action specifically addresses IWRM implementation through 163 identified interventions on ground. Three (Punjab, Sindh & Khyber Pakhtunkhwa) of four Provinces got approved their respective provincial water policies that are prepared according to the guidelines of NWP with emphasis on IWRM. Based on this, dedicated Water Regulatory Authorities stand established in the province of Punjab & Khyber Pakhtunkhwa. Water Policy in Balochistan is also being prepared.

In addition, National Water Conversation Strategy has been also prepared according to which major reservoirs will be constructed in next 5-10 years. Stakeholders consultative process for updation of National Flood Protection Plan-IV (NFPP-IV) has been completed on August 29, 2023, its final report is likely to be submitted within October 2023. Besides, a National Master Plan on Flood Drainage is also being prepared in order to address inter-provincial concerns related to drainage of torrential flash flooding.

National Climate Change Policy and National Adaptation Plan also includes measures to ensure implementation of IWRM on order to adapt and fight climate change. The participants, however, generally noted that most of the issues raised and recommendations made still remain unimplemented.

a) What are the main challenges to progress in the country?

- The inadequate surface water supplies have led to excessive abstraction of the groundwater to meet irrigation demands.
- Groundwater management/ monitoring mechanism is weak
- As far as the enabling environment is concerned, transboundary water management arrangements have not significantly improved over last few years. Environmental flows are not part of transboundary agreement i.e. Indus Basin Treaty (IBS) 1960.
- Lack of sustainable spatial/ land & water use planning
- Water use efficiency and water productivity is low
- Environmental flows to preserve aquatic ecosystem have been rarely achieved.
- Available database of canal withdrawals and river reach losses is not reliable for national/ provincial scale monitoring and compliance.

b) How can the main challenges be addressed?

- Enhance reliance on surface water supplies through construction of new storage dams. Urban groundwater abstractions be supplemented by surface water.
- Promote real time monitoring of the groundwater and update the groundwater maps/ Atlas etc.
- Provinces to pass respective Groundwater Regulatory Acts and enact them through Water/ Groundwater Regulatory Authorities (As already enacted in Punjab & Khyber Pakhtunkhwa provinces while yet to be established in Sindh & Balochistan).
- Disaster-development nexus should be studied in order to promote flood-adaptive water and land use

- Re-visiting the transboundary water arrangement as per the current and future scenarios. There is an immediate need to coordinate with Afghanistan on sharing of Kabul river basin.
- Measures for enhancing water use efficiency and increased productivity through climate resilient cropping patterns and introducing low delta crops
- Expansion of telemetry system for harmonizing the water distribution between provinces – Proper water accounting at the provincial level should be put in place.
- Provinces to put more emphasis on controlling pollution of surface and groundwater resources.
- Realistic water pricing system in order to recover also the investment cost for groundwater recharge projects

c) At the question level or in general, what is the perceived rate of progress, and what is the likelihood of reaching High or Very high implementation by 2030? Is there a need for national (interim) target setting (which may be taken up in more detail in Stage 2 of the SDG 6 IWRM Support Programme)?

- Pakistan has set its National Developmental Goals (NDGs) in line with the SDGs. Thus, NWP Implementation Framework and National Water Conservation Strategy have been prepared to be followed at the National and Sub National level with proper monitoring and reporting mechanism.
- Government of Pakistan has increased the funding for water sector projects and started the construction of two (02) mega dams to overcome vast variations in seasonal water availability for food security and environment sustainability. On the other hand, enabling environment depends on the socio-political conditions of the country.
- In the light of current political fiasco, the country is not likely to achieve High implementation status by 2030 unless specific immediate interventions are under taken with firm commitment.

d) What are the major point's stakeholders do not agree on and why?

- The stakeholders' mostly agreed with no major opinion of difference. Some aspects where stakeholders were not satisfied are reflected in the scoring pattern.

e) Other Interesting Points of note from the discussion?

- Ministry of Water Resources to lead the effective implementation of IWRM. In this respect, process for the institutional reforms/ capacity building of the departments attached with the Ministry, has already started.
- Office of the Pakistan Indus Water Commissioner (O/o PCIW) responsible for Indus waters treaty should be made proactive with its capacity enhancement and quality leadership
- Pollution of fresh water bodies and over extraction of ground water needs immediate attention of Policy Makers. Tube wells inventory including domestic, Industrial, commercial , agricultural etc. needs to be prepared and monitoring mechanism be put in place.
- Over use of water in agriculture sector needs serious and immediate attention

- Under climate change and global warming, the Policy Makers should also look towards the coastal region for water and food security instead always looking towards Himalaya melting glaciers in the north as water basket
- To cater for rapid growth in the population and urbanizations, coastal areas development with livelihood opportunity needs attention
- Environmental protection act (EPA) needs to be strictly enforced to address water borne diseases and reduce mortality rate
- Water conservation, recycling of water and rain water harvesting should be encouraged to address water security issues
- Flood waters in particular of hill torrents need to be tapped and diverted to irrigate barren lands/deserts of Punjab, Sindh and Balochistan

3. Conclusions from facilitated discussions on Section 2: 'Institutions and Participation'

The forum discussed the institutional arrangements at different levels and participation of stakeholders to support the implementation of IWRM. The forum was of the opinion that there are various organizations at federal and provincial levels dealing with the water sector. Strong coordination among these organizations was evident during the 2022 floods. To effectively lead the implementation of IWRM, mechanisms to strengthen the collaboration between the stakeholder organizations is essential. The participants appreciated the process of consultation with different stakeholder groups for formulation of NWP Implementation Framework and other related plans/projects/activities.

a) What are the main challenges to progress in the country?

- There are many organizations in the country managing water resources at different levels. These organizations are well coordinated, however, collaborations needed to be developed for accelerated and effective implementation of IWRM.
- The O/o PCIW is looking after implementation of Indus Basin Treaty transboundary water management now and in the future, and the mechanisms for. The existing arrangements are insufficient to address the problems with resolving disputes need to be improved.
- Although water is a provincial subject, this mandate would seem to lie at the provincial level. However, as the floodwater crosses provincial borders and as the spatial development (encroachment of flood plain, development of structures) affects storm water removal/ evacuation, it becomes a federal issue. At federal level the O/o CEA & Chairman Federal Flood Commission is the most appropriate entity to coordinate integrated floodwater management.
- The existing competencies of Office of CEA/ CFCC mainly revolve around the core subjects of civil and electrical engineering mainly focusing on river hydrology, river hydraulics, catchment hydrology, dams & barrage engineering, power engineering with traditional practices being used at country-wide basis. Due to shortage of technical staff owing to non-filling of vacant posts and challenging water sector issues in the country, there is dire need to restructure the O/o CEA/ CFCC and transform it into a National Engineering and Flood Management Authority, by filling of vacant positions and provision of additional staff as well as provision of new tools/ technologies to handle water sector issues.

- Public and private sector consultations have seen marked increase in all aspects of water sectors including policy formulation and its implementation management
- Planning Commission of Pakistan has a special cell dealing with SDGs. They have been extended the invitation but the Cell representatives were unable to attend the Workshop due to prior other engagements.

b) How can the main challenges be addressed?

- Develop collaboration among government organizations for water resources planning and management. Ministry of Water Resources to continue leading the efforts to achieve IWRM at all levels and provide a platform for collaboration among the concerned organizations.
- Office of CEA/ CFFC should be transformed into an Authority by also giving the organization some administrative and regulatory roles to ensure holistic flood management in the country. Development of standards is an essential responsibilities assigned to regulatory bodies. O/o CEA/CFFC may be authorized to regulate flood plains and associated land-use besides to develop and enforce standards with respect to a large number of areas including flood resilient construction; protection of below ground structures; anti flooding devices for buildings; flood protection products; flood control materials etc.
- Capacity of local level organizations to implement water laws implementation is inadequate and need immediate attention.
- Transboundary water management organization should be research driven and consist of highly skilled professionals competent enough to advise government of Pakistan in resolving transboundary issues/disputes in line with treaty's clauses safeguarding Pakistan's interest and capable of dealing future implications of the Treaty.
- Enhance the capacity of the local level organizations mandated to implement local water laws and related legislations.
- The forum agreed to the Public-Private Partnership (PPP) approach for developing and managing water resources.
- The NWP implementation framework and National Water Conservation Strategy prepared for expediting actions of National Water Policy needs to be implemented in letter and spirit.

c) At the question level or in general, what is the perceived rate of progress, and what is the likelihood of reaching High or Very high implementation by 2030? Is there a need for national (interim) target setting (which may be taken up in more detail in Stage 2 of the SDG 6 IWRM Support Programme)?

There are serious efforts underway to enhance the capacity of organizations including Ministry of Water Resources to lead the implementation of IWRM. To achieve High status for the "Institutions and Participations" dimension of IWRM implementation, consistency and continuity of leadership, conducive environment and increased collaboration among organizations and other stakeholders need to be ensured. However, under the prevailing economic and political conditions, it is difficult to maintain the pace and achieving High status of IWRM implementation seems challenging.

d) What are the major points stakeholders do not agree on and why?

Participants had a difference of opinion on the following points:

- Coordination between government authorities on implementing IWRM is not efficient.
- There is no single organization who is maintaining record of all SDG's in respect of financial support and implementation status.
- One of the participant was of the view that there is no organization that can implement all elements of IWRM by itself.

e) Other interesting points of note from the discussion?

National Water Weeks were held in 2021 and 2022 were great success where multiple stakeholders interacted to solve critical water resources challenges of Pakistan.

4. Conclusions from facilitated discussions on Section 3: 'Management Instruments'

The forum discussed that the capacity of federal level organizations to monitor surface water availability has been enhanced. For example, Telemetry system of IRSA is conceived now and work initiated for its implementation on ground, moreover, plans are underway to monitor small channels through installation of telemetry systems at 457 locations. The participants stressed that groundwater monitoring is limited. The Water Apportionment Accord (WAA) tool of IRSA, which is developed with the assistance of Commonwealth Scientific and Industrial Research Organization, has improved IRSA's capacity to automate the process of fair distribution of waters of Indus river among provinces.

It was discussed that implementation of "Management Instruments" for pollution control and protection of water-related ecosystems is lacking. However, participants appreciated that with the initiation of Recharge Pakistan and Living Indus Initiative projects, the management of ecological health of river Indus and dependent ecosystems will improve.

The forum shared serious concern on the non-continuous sharing of the data by India which is the violation of Indus Basin Treaty. It was suggested to build capacity in collecting and processing remote sensing information to analyze transboundary waters.

Mr. Ahmed Kamal, CEA/CFPC, apprised the forum about the advancements in disaster risk reduction measures including installation of new Weather Radars and Procurement of mobile radars to monitor localized system for generating floods . He informed that updated National Flood Protection Plan-IV (NFPP-IV) is expected to be finalized in October, 2023. Besides, JICA will be conducting embankment assessment to strengthen existing flood protection and mitigation network. He added that model River Act, already prepared in 2016, has been shared with the provinces in order to delineate the river width and mark the encroachment zones.

Participants were informed that data and information sharing arrangements have improved since the last reporting period. Representatives from Ministry of Climate Change & Environmental Coordination apprised about climate dashboard and MIS portal developed by the Ministry through which data is freely accessible to all including general public.

a) What are the main challenges to progress in the country?

- Irrigation consumes over 90% of the country's water resources. Irrigation practices are highly unsustainable and result in loss of significant amount of water. Water returns in term of unit of land and water are one of the lowest in the world.
- Very limited implementation of pollution control laws.
- Limited management of water-related ecosystems.
- Inadequate groundwater management plans.
- Uncertainty in availability of transboundary water data for flood management.
- More work need to be done to bring water data into public domain for easy access.

b) How can the main challenges be addressed?

- Introduction of water conservation technology and techniques, and high efficiency irrigation system. Training of farmers to enable them to optimally utilize the water resources and to make them aware of their critical role in water management.
- Move towards planting crops that require less water and have more economic value.
- Pakistan is already facing climate change impacts. For sustainable cropping pattern revised agro-climate zoning of whole of Pakistan has to be carried out
- Capacity building of organizations responsible for implementing the National Environmental Quality Standards (NEQS) to effectively control the water quality.
- Establishment of consortium of government organizations, NGOs and private sector to raise the awareness on management and conservation of water-related ecosystems. Encourage practices to protect such ecosystem and recommend implementation framework for legislations pertaining to the protection of water-related ecosystems.
- Provinces need to expedite the process of formulation and implementation of groundwater regulatory act and establishment of groundwater regulatory authorities as guided by the NWP.
- Pakistan shall make use of global and remote sensing datasets that are available through multiple platforms to access transboundary waters.
- The forum put a strong emphasis on the creation of unified national dataset that shall be publicly available.

c) At the question level or in general, what is the perceived rate of progress, and what is the likelihood of reaching High or Very high implementation by 2030? Is there a need for national (interim) target setting (which may be taken up in more detail in Stage 2 of the SDG 6 IWRM Support Programme)?

Management Instruments are one of the main focus of national and provincial (where applicable) water policies, however, in some fronts the progress is slow or stagnant e.g. pollution control and management of water-related ecosystems. There is a dire need to set immediate dedicated targets to improve on these aspects. The transboundary water management is an issue of great concern, which requires due consideration and cooperation of regional and global stakeholders. In addition fresh water bodies which existed in abundance either have come under new housing schemes or their catchment areas have been subject to encroachments and water bodies have disappeared over the time. These water bodies played a positive role in ground water recharge and maintained atmospheric moisture.

d) What are the major points stakeholders do not agree on and why?

The stakeholders' mostly agreed with no major opinion of difference. Some aspects where stakeholders were not satisfied are reflected in the scoring pattern.

e) Other interesting points of note from the discussion?

- Most aspects of “Management Instruments” dimension of IWRM are covered in NWP.
- Management tools for public needs to be user friendly and easily understandable.
- Telemetric system is important to get real time data for better water management to enhanced water benefits
- Use of satellite technology to monitor real time water flows including Transboundry rivers to manage the flooding with in the country is urgently needed.

5. Conclusions from facilitated discussions on Section 4: 'Financing'

The forum highly appreciated that “Financing” for water resources activities has increased from 3.4% in 2020 to 16% in 2023 of Annual Public Sector Development Programme (PSDP) allocation. The involvement of Supreme Court of Pakistan has helped a lot in enhancing water sector financing and through public funding effort Supreme Court has collected PKR 10 billion for construction of major reserviors. It is expected that water sector financing will significantly increase through the international commitments under Loss & Damage Facility established during COP 27.

a) What are the main challenges to progress in the country?

- Revenue generation and collection from the use of water is inadequate to meet future development and O&M cost
- Slow disbursement of funds due to inadequate capacity of organizations to carry out projects and programmes at the required pace
- Thin spreading of water sector through Annual Development Programme is mainly responsible for cost overrun and time over run. Priority needs to be set to fully finance limited priority interventions.

b) How can the main challenges be addressed?

- Main focus needs to be on realistic water pricing mechanism for each sub sector of water and water revenue collection
- Realistic allocation of funds as planned in approved PC-I
- Capacity building of organizations to accelerate funds utilization by completing activities on time

c) At the question level or in general, what is the perceived rate of progress, and what is the likelihood of reaching High or Very high implementation by 2030? Is there a need for national (interim) target setting (which may be taken up in more detail in Stage 2 of the SDG 6 IWRM Support Programme)?

- Approved NWP stipulates the gradual increase of water sector allocation to 20% of PSDP in year 2030. In order to fully utilize the envisaged budget in NWP and achieve High status, capacity enhancement of relevant organizations to manage and effectively disburse these funds is required.

- A new water pricing structure has to be introduced in each sub sector of water uses including the river management.
- Funds are diverted on other SDG's and targets for which no record is available. Proper inventory needs to be maintained.

d) What are the major points stakeholders do not agree on and why?

The stakeholders' mostly agreed with no major opinion of difference.

e) Other interesting points of note from the discussion?

- Substantial funds are required for proper functioning of Ministry of Water Resources to lead effective IWRM implementation in the country.
- Organizations dealing with water sector need technical professionals in the key positions for better water management
- General lack of record keeping makes some vital SDGs interventions going un-noticed.

6. Next Steps

Mr. Sardar Muhammad Tariq, CEO PWP, thanked all the participants in attending physically the workshop in extreme times and giving their valuable input for the completion of the survey. He mentioned that we came a long way since last reporting period and we expect to be at a better position by the next reporting round in 2026. He mentioned that we need to keep moving as still a lot need to be done specifically in groundwater, environmental flows, ecosystems, and management of transboundary waters. The external factors such as climate change entail significant threat to water-food-energy nexus of the country. He further explained that over 400 million gallons of polluted industrial and domestic waste from Karachi city is daily being dumped in to the Karachi sea which has disasters effect on marine life, the future food basket of Pakistan.

Mr. Ahmed Kamal, CEA/CFPC, National Focal Point for SDG Indicator 6.5.1, added that water is the life-line of the country and poor management of flood waters resulted in loss of water whose economic value is equal to billions of dollars. Sustainable development of water resources in line with the SDG-6 targets is critical for the well-being of upcoming generations. He mentioned that as a next step, priority action areas to accelerate implementation of IWRM can be extracted from the workshop report and plan(s) to address those action areas need to be formulated. He thanked his team and PWP professionals for successfully organizing the event. He also thanked UNEP-DHI and GWP for their support in organizing this 3rd Country Stakeholders Conference on SDG Indicator 6.5.1.

In the end, Mr. Sardar Tariq and Mr. Ahmed Kamal gave souvenirs to the Area Water Partnerships Representatives who were working in remote areas to ensure food and water security for vulnerable groups, as well as the youth coordinator from PWP who offered their support for the implementation of IWRM activities. Both the dignitaries were especially appreciative of the efforts made by the Area Water Partnership while working in the Cholistan desert in temperatures as high as +50 °C.

List of participants

List of Participants for the One Day Stakeholders Workshop on Sustainable Development Indicators 6.5.1 on IWRM in Islamabad- 21st August, 2023

Sr.#	Name	Designation	Organization	Address	Tele	Email
1.	Mr. Sardar Muhammad Tariq	Chief Executive Officer/Ex-Advisor on Large Dams (MOWR)	Pakistan Water Partnership (PWP)	Village & Post Office Kot Najibullah, Haripur	03028505538	smtariq@pwp.org.pk
2.	Mr. Ahmad Kamal	Chief Engineer Advisor / Chair FFC	Ministry of Water Resources, GOP	Plot#6 Attaturk Avenue, G-5/1, Islamabad	0300-5278981	ifmengineer@gmail.com
3.	Mr. Sahibzad Khan	Director General	Pakistan Meteorological Department	Pitras Bukhari Rd, H-8/2, Islamabad,	(051) 9250360	sahibzad@gmail.com
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Annex 2: Agenda

3rd Country Stakeholder Workshop for SDG 6.5.1
Best Western Hotel,
6 Club Rd, Near Rawal Dam Interchange Islamabad
Monday Aug 21, 2023

Programme

09:30 – 10:00 Hours	Registration of Participants (30 min)
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10:00-10:30 Hours	Welcome and Introduction (30 min)
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- Welcome and Introduction to the meeting by Sardar Muhammad Tariq, Chief Executive Officer Pakistan Water Partnership.
- Official Opening of the meeting by Ministry of Water Resources high-ups.
- Brief presentation of the stakeholders participating by Mr. Ahmed Kamal, Chairman Federal Flood Commission/Focal Point SDG 6.5.1

10:30-11:00 Hours	SDG 6.5.1 - Background and overview (30 min)
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- Presentation on SDGs implementation and progress status in Pakistan, speaker TBD
- Background to SDG 6.5.1 and the survey, and an overview of the questionnaire by Dr. Muhammad Ukasha, Facilitator.

11:00-11:15 Hours	Tea Break (15 min)
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11:15-13:15 Hours	Facilitated discussions (2 h)
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Section 1 and 2: 'Enabling Environment' and 'Institutions and Participation'

- Introduction and support to understand the sections
- Roundtable discussions

Q1a: What is the status of policies, laws and plans to support Integrated Water Resources Management (IWRM) at the national level?

Q1b: What is the status of policies, laws and plans to support IWRM at other levels?

Q2a: What is the status of institutions for IWRM implementation at the national level?

Q2b: What is the status of institutions for IWRM implementation at other levels?

- Reporting back and discussion - including agreeing on scores for the questions under section 1 and 2 in the questionnaire and capture 3-5 key points from the discussion for the narrative sections to support the rationale or capture divergences

13:15-14:00 Hours	Lunch/Prayer Break (45 min)
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14:00-16:30 Hours	Facilitated discussions Continued (2½ h)
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Facilitated discussions Continued on Section 3 and 4: 'Management Instruments' and 'Financing'

- Introduction and support to understand the section and the questions
- Roundtable discussions

Q3a: What is the status of management instruments to support IWRM implementation at the national level?

Q3b: What is the status of management instruments to support IWRM implementation at other levels?

Q4a: What is the status of financing for water resources development and management at the national level?

Q4b: What is the status of financing for water resources development and management at other levels?

- Reporting back and discussion - including agreeing on scores for the questions under section 3 and 4 in the questionnaire and capture 3-5 key points from the discussion for the narrative sections to support the rationale or capture divergences

16:30-16:45 Hours	Tea Break (15 min)
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16:45-17:30 Hours	Wrap up and Closing of the meeting (45 min)
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- Follow up on any loose ends from the previous discussions by Mr. Ahmed Kamal, Chairman Federal Flood Commission/Focal Point SDG 6.5.1
- Agree on next steps for follow up and monitoring of the SDG 6.5.1 indicator by Mr. Ahmed Kamal, Chairman Federal Flood Commission/Focal Point SDG 6.5.1
- Wrap up and closing remarks of the workshop by Sardar Muhammad Tariq, Chief Executive Officer Pakistan Water Partnership.

Annex 3: Facilitator's Comments

The number and diversity of stakeholder's who participated in the workshop is encouraging. Representation from gross root level was ensured by PWP through inviting the members of Area Water Partnerships (AWPs) of remote areas.

The participants actively took part in the scoring process and confidently raised their concerns. Most of the questions were scored after rich discussions and agreement of the present stakeholders.

Support of UNEP-DHI and GWP was instrumental in successfully organizing the workshop. Many opportunities for supporting Stage-2 of the IWRM implementation process can be extracted from the multi-stakeholder consultations.

The facilitator is very much thankful to PWP, GWP, O/o CEA/CFPC and UNEP-DHI for providing this opportunity.

Annex 4: Photos





SDG Indicator 6.5.1: Survey

DEGREE OF INTEGRATED WATER RESOURCES MANAGEMENT (IWRM) IMPLEMENTATION

Reporting Year: 2023

(Reviewed version dated November 29, 2023 separately attached)