

Balochistan Integrated Water Resources Management and Development Project

**Three Day Training Workshop
on
Sustainable Use and Management of Groundwater**

Duration: July 23-25,2023

Venue: IWMI Pakistan Office, Quetta, and Field Visit to Pishin

Day 1 (Sunday, Field Visit)

Time	Topic (Subject Area)	Resource Person
9:00- 9:30 am	Registration	IWMI
9:30- 10:30 am	Introduction to the field instrumentation for efficient irrigation and groundwater monitoring	Dr. Sarfraz Munir, IWMI Dr. Abdul Hakeem, IWMI
10:30- 11:00 am	Tea Break and Getting Ready for Field Visit	IWMI
11:00- 12:30 pm	Travel from Quetta to Pishin	IWMI
12:30- 2:00 pm	Lunch in Pishin and Prayer Break	IWMI
2:00- 2:45 pm	Geotagging of tube wells. (Practical Exercise)	Dr. Sarfraz Munir, IWMI
2:45- 4:00 pm	Exposer visit and practical demonstration of installation, operation & maintenance, and management of drip irrigation system for orchards and vegetable farms (Practical Exercise)	Dr. Sarfraz Munir, IWMI Dr. Abdul Hakeem, IWMI
4:00- 5:00 pm	Travel from Pishin-Quetta	IWMI

Day 2

Time	Topic (Subject Area)	Resource Person
9:00- 9:30 am	Registration	IWMI
9:30-9:35 am	Recitation of the Holy Quran	Najeeb Ullah, IWMI
9:35- 10:00 am	Welcome Remarks and Introduction to IWMI	Dr. Mohsin Hafeez, IWMI
10:00- 10:10 am	Remarks by Project Director, BIWRMDP	Engr. Barkat Ullah Kakar, Irrigation Department, GOB
10:10-10:20 am	Remarks by Director General OFWM	Mr. Ali Raza Jamali, Agriculture and Cooperative Department, GOB
10:20- 10:30 am	Remarks by the Chief Guest	Mr. Umaid Ali Khokhar Secretary Agriculture and Cooperatives, GOB
10:30- 11:00 am	Tea Break and Group Photo	IWMI
11:00- 12:00 pm	Significance of Groundwater and its Management for Balochistan	Dr. Muhammad Ashraf, Chairman, PCRWR
12:00- 1:00 pm	Groundwater Depletion and Land Subsidence in Balochistan	Dr. Din Muhammad Kakar, Balochistan
1:00- 2:00 pm	Lunch and Prayer Break	IWMI
2:00- 3:00 pm	Remote sensing and GIS use for sustainable management of groundwater resources	Dr Mohsin Hafeez, IWMI
3:00- 3:30 pm	Integrating gender concerns in policy decisions	Ms. Khadija Begum, IWMI
3:30- 3:45 pm	Tea Break	IWMI
3:45-4:30 pm	Groundwater quality for drinking and agriculture use	Mr Shakeel Badshah - PCRWR
4:30- 5:30 pm	Practical Exercise of Water Quality Testing	Mr. Shakeel Badshah - PCRWR

Day 3

Time	Topic (Subject Area)	Resource Person
9:00- 9:30 am	Wrap-up of Day 2	Dr. Mohsin Hafeez, IWMI
9:30- 10:30 am	International case studies - Management of groundwater resources in the Yellow river basin China and Murray Darling Basin Australia	Dr. Mohsin Hafeez, IWMI
10:30- 11:15 am	Groundwater Modelling Platforms	Dr. Sarfraz Munir, IWMI
11:15- 11:30 am	Tea Break	IWMI
11:30-12:15 pm	Integrated Water Resources Management key concepts and challenges	Dr. Muhammad Arshad, IWMI
12:15- 1:00 pm	Management of Depleting Aquifers Managed Aquifer Recharge a leading-edge technology for replenishing depleted aquifers.	Dr Muhammad Arshad, IWMI
1:00- 2:00 pm	Lunch and Prayer Break	IWMI
2:00-2:45 pm	Design of Solar Pump-based Irrigation System	Dr Abdul Hakeem, IWMI
2:45- 3:45 pm	Groupwork Designing a Solar Irrigation System by participants	Dr Abdul Hakeem, IWMI
3:45- 4:00 pm	Tea Break	IWMI
4:00-4:45 pm	Presentation by Groups	Group Representatives
4:45- 5:15 pm	Closing Remarks and Certificate Distribution	Engr. Abdul Fatah Bhangar Secretary Irrigation, GOB
	Group Dinner	IWMI