

WATER & CLIMATE SEMINAR SERIES



BACKGROUND

Pakistan's food, energy and economic security are predominantly dependent upon water resources, where the availability of water resources is under immense threat mainly due to depletion and degradation as well as an increase in demand. The International Water Management Institute (IWMI) and its key stakeholders are putting substantial efforts into discovering innovative solutions to the overarching challenges in sustainable water resources management through research for development. In this collective effort, sharing knowledge with peers and learning from each other's experiences is highly worthwhile. With this context, IWMI Pakistan has started Water and Climate Seminar Series and inviting distinguished researchers to share their knowledge.

PRESENTER



Dr. Muhammad Arshad

Dr. Muhammad Arshad, International Researcher (Integrated Water Resource Management) IWMI Pakistan: Dr. Muhammad Arshad has over 20 years of experience in the water science and technology. His doctorate studies at the Australian National University developed a cost benefit model to assess economic viability of MAR under uncertain conditions. The results of his research have been published in the open access "Water" journal (Arshad et. al. 20014, available at <http://www.mdpi.com/2073-4441/6/9/2748/htm>). Arshad has published ten peer reviewed scientific papers on MAR, technology and on MAR economics and governance.

TOPIC: MANAGED AQUIFER RECHARGE FOR FUTURE WATER SECURITY

Managing groundwater depletion is a primary concern of the National Water Policy and the public at large. In Pakistan, groundwater is the most intensively used and poorly regulated resource. Aquifers across the country are heavily exploited and groundwater use already exceeds recharge, with a negative balance. Additional storage of water is a potential option to meet future water security goals. Financial comparisons are needed to improve decision making about whether to store water in surface reservoirs or below ground, using Managed Aquifer Recharge (MAR). In some places, the results of cost-benefit analysis show that MAR is financially superior to surface storage. However, uncertainty often exists as to whether MAR systems will remain operationally effective and profitable in future, because profitability of MAR is dependent on many uncertain technical and financial variables. This seminar unfolds the feasibility of MAR under uncertainty. Uncertainties are assessed by identification of cross-over points in break-even analysis. Cross-over points are the thresholds where MAR and surface storage have equal financial returns. Such thresholds can be interpreted as a set of minimum requirements beyond which an investment in MAR may no longer be worthwhile.

DAY/DATE/TIME		
WEDNESDAY	JULY 12	1500 - 1630 (PST)

FOR MORE INFORMATION PLEASE CONTACT :

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