

The specific objectives of the workshop are:

- Skill development in sustainable watershed management practices;
- Sharing of regional knowledge, especially among Pakistan, Nepal and Sri Lanka;
- Dissemination of promising watershed management technologies;
- Linkages development among national and international organizations.

Focus Areas

- Climate change and food security issues;
- Watersheds sustainability evaluation;
- Prioritizing site specific and best watershed management practices;
- Climate change impacts on watersheds and climate resilient practices;
- Dissemination mechanism to end users.

Collaborating Institutes

- Asia Pacific Network for Global Change Research (APN_{gcr});
- Global Climate Change Impact Study Centre (GCISC);
- Pakistan Council of Research in Water Resources (PCRWR);
- Natural Resource Management Center (NRMC) Sri Lanka;
- Nepal Academy of Science and Technology (NAST);
- The Small Earth Nepal, (SEN) Nepal

Key Speakers

Mr Fazal Abbas Mekan, Secretary MNFS&R;
Dr Amir Muhammad, Ex-Chairman PARC;
Dr Yusuf Zafar T.I., Chairman PARC;
Dr Muhammad Ashraf, Chairman PCRWR;
Dr Tariq Banuri, Executive Director GCISC;
Dr Munir Ahmad, Member NRD/PARC;
Dr Muhammad Azim Khan, D.G. NARC.

Workshop Venue

- 1: NARC Auditorium, Chak Shahzad, Islamabad on December 26, 2017
- 2: Dreamland Hotel, Murree Road Islamabad on December 27, 2017
- 3: Field visit to PARC- Rawal Watershed Field Station for demonstration of best watershed management technologies on December 28, 2017

Workshop Resource Persons

Dr Muhammad Munir Ahmad, CAEWRI-NARC

Mr Arif Goheer, GCISC, Pakistan

Prof. Dr Madan Lall Shrestha, NAST, Nepal

Dr S.H.S. Ajantha De Silva, NRMC, Sri Lanka

Dr B.V.R. Punyawardena, NRMC, Sri Lanka

Mr Dilli Ram Bhattarai, SEN, Nepal

Dr Ghani Akbar, CAEWRI-NARC

Mr Aftab Ahmad Khan, GCISC, Pakistan

Potential Participants & Project Partners

- Agriculturists;
- Hydrologists;
- Environmentalist;
- Social scientists;
- Extension workers;
- Community workers.

Contact for further details and registration

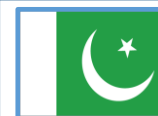
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Improving Skills for Promoting Sustainable Watershed Management Practices in South Asia

Training Workshop – December 26 to 28, 2017

Organized by



**Pakistan Agricultural Research Council
National Agricultural Research Centre
Climate Change, Alternate Energy and
Water Resources Institute (CAEWRI)
Integrated Watershed Management Program**



Introduction

A watershed is the area or region drained by a body of water (reservoir, river, stream etc.) as illustrated in Figure 1. Sustainable watershed management brings the management of water, land, crops and energy together for sustainable agriculture and improved livelihood of watershed communities. Pakistan lies in the worst climate change zone and has been ranked among the top ten countries at risk to climate change in the world. The major climate change impacts are frequently observed in the form of floods, droughts, non-availability of water at the right time and degradation of natural resources.



Figure 1: Layout of a conceptual watershed

The traditional watershed management practices cannot cope with the rapidly emerging climate change risks in these areas. Sustainable watershed management practices may enhance the resilience of natural resources to climate change induced risks (floods/droughts) but lack of knowledge, skills, resources and awareness are the main impediments in changing the local community attitude and behaviour towards a positive change. Nevertheless, climate risks

forecasting and assessment has been largely focussed in the past, but promoting climate risk reduction/mitigation through best adaptation practices on farm are largely overlooked.

Therefore, the Pakistan Agricultural Research Council (PARC) has initiated its watershed management activities since early 1980s in different parts of the country. Both wet and dry watersheds have been targeted to develop practical solutions. Major watershed management activities were conducted in Potohar Region (humid watersheds), Mithanwan D.G. Khan, Thana Boula Khan, Sindh, Uplands of D.I. Khan, KPK and Barkhan areas of Baluchistan (dry watersheds) and developed affordable technologies for these areas through R&D initiatives. The different watershed management interventions (Figure 2-3) were demonstrated and research outcome were disseminated through capacity building for the adaptation of site specific technologies.



Figure 2: Micro catchment for rainwater harvesting



Figure 3: Sprinkler irrigation for efficient use of harvested rainwater at Satrameel field station

Workshop Objectives

This workshop has been organized as part of PARC endeavours to develop regional linkages for sustainable watershed management practices in South Asia, especially, in Pakistan, Nepal and Sri Lanka, with the financial support of Asia Pacific Network for Global Change Research (APNgr) Japan. Sustainable watershed management practices may include soil, water and energy conservation practices, potential use of harvested rainwater using solar/electric/diesel powered high efficient irrigation systems (drip, Sprinkler, furrow bed irrigation systems) for high value agriculture. Now to seek further insight into shortlisting and further dissemination of the most promising practices and sharing of the new knowledge, as per site specific climate change scenarios in Pakistan, this training workshop has been organized for 20 potential Pakistani professionals, whose domain of expertise & official responsibilities match with the above technologies and intervention.