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National Conference on Pak-Agriculture at Cross Road of Water Scarcity and Climate Change

Date: 8-9th November, 2018

Organized By



Department of Agronomy
Pir Mehr Ali Shah Arid Agriculture University
Rawalpindi Pakistan

In Collaboration with



Pakistan Society of Agronomy

Conference Venue

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Background

Water use has been growing globally at more than twice the rate of population increases in the last century, and an increasing number of regions are reaching the limit at which water services can be sustainably delivered. Essentially, demographic growth and economic development are putting unprecedented pressure on renewable, but finite water resources, especially in arid regions. By 2025, 1800 million people are expected to be living in countries or regions with “absolute” water scarcity ($500\text{ m}^3\text{ per year per capita}$), and two-thirds of the world population could be under “stress” conditions (between 500 and $1000\text{ m}^3\text{ per year per capita}</math>). The situation will be exacerbated as rapidly growing urban areas place heavy pressure on neighboring water resources. Moreover, environmental services and ecosystem functions cannot be treated any longer as the residuals of all water users. In the future, climate change and bio-energy demands are expected to amplify the already complex relationship between world development and water demand. The concept of scarcity is somewhat ambiguous and complex to be defined as it implies different dimensions or facets.$



Scarcity needs to be understood as a relative concept, i.e., an imbalance between “supply” and “demand” that varies according to local conditions. It intensifies with increasing demand by users and with the decreasing quantity and quality of the resource. Water is expected to become increasingly scarce in the future, and this is partly due to climate change. Water scarcity caused by climate change wreaks havoc on economies, especially ones that are still developing. Approximately 98% of our water is salty and only 2% is fresh. Warming causes polar ice to melt into the sea, which turns fresh water into sea water. Another effect of warming is to increase the amount of water that the atmosphere can hold, which in turn can lead to more and heavier rainfall when the air cools. Although more rainfall can add to fresh water resources, but heavier rainfall also leads to more rapid movement of water from the atmosphere back to the oceans, reducing our ability to store and use it.

Pakistan, being a 6th high-risk climate change vulnerable country is facing critical challenges of adopting climate change measures. Pakistan falls in the water stressed regions. Water availability per capita in Pakistan has depleted to a level of 850 m^3 lower than scarcity threshold of 1000 m^3 . It is a considered view that the country will run out of water by 2025. A growing competition for water from different sectors, including industry, agriculture, power generation, domestic use, and the environment, is making it difficult for people to access this scarce resource for productive, consumptive and social uses.



National conference on

“Pak- Agriculture at Cross Road of Water Scarcity and Climate Change”

will serve an effective platform to discuss the issues and extent of water scarcity and climate change effects on Pakistan agriculture and economy and role of different stakeholders. The outcomes of this highly interactive conference will contribute to local capacity building on water scarcity and climate change awareness and adaptation strategies. This Conference is being organized by the

Department of Agronomy,

PMAS, Arid Agriculture University Rawalpindi

With collaboration of Pakistan Society of Agronomy.

Objectives

The objective of the conference is to highlight threat of water scarcity and food security due to climate change and its consequences on the country.

The conference will provide a platform to academia, faculty members, researchers, Extension workers, Progressive farmers, policy makers and other stakeholders to share their worth being knowledge and experiences pertaining to climate change effects on water scarcity and crop production and intend to conclude the smarter and sustainable ways to utilize water resources and adaptation strategies to ensure water and food security.

Conference Theme

Conference will focus but not limited to the following major themes:

- 1.Pak-Agric an outlook of Past, Present and Future Scenario
- 2.Agriculture research- Present orientation and future challenges
- 3.Water availability, management and challenges
- 4.Next generation mechanization
- 5.Seed Sector analysis, challenges and opportunities.

Who Should Attend the Conference and Why?

Policy makers, Agriculture related stakeholders, researchers, Faculty members, progressive farmers, extension workers, MS/Ph.D students, young scholars and members of agronomic society from all over the Pakistan having interest in climate change and water scarcity, a burning issue of the day will be welcome to share their research findings and discuss their obligations to manipulate smart and worth being adaptation strategies for the sake of prosperity at country level.





Expected Outcomes

The conference is expected to develop a shared vision on climate change threats to Agriculture and water security. It will establish a platform for further networking and synergies of stakeholders regarding research, education and policy dialogue for practical and realistic adaptation measures.

Conference Organization

Patron in Chief

Prof. Dr. Sarwat N. Mirza

(Vice Chancellor)

Patron

Prof Dr. Nadeem Akhtar Abbasi

(Dean, FC & FS)

Organizers

Prof. Dr. Fayyaz-ul-Hassan
Prof. Dr. Zammurad Iqbal Ahmad
Dr. Ghulam Qadir
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Dr. Safder Ali
Dr. Adeel Anwar

(Chairman/ Convener)

Secretary of Conference

Dr. Mukhtar Ahmed



