



2nd INTERNATIONAL CONFERENCE

SOIL, PLANT AND ENVIRONMENTAL HEALTH UNDER CHANGING CLIMATE

APRIL | 16th - 17th | 2024

ORGANIZED BY
DEPARTMENT OF SOIL AND ENVIRONMENTAL SCIENCES
MNS UNIVERSITY OF AGRICULTURE MULTAN



CONFERENCE OVERVIEW

Food security (food availability, accessibility, utilization, and food system stability) is dependent on climate. To sustain food for production of the burgeoning human population, there is a great interest to discover vulnerabilities and adaptive measures in managed ecosystems. One such potential vulnerability is climate change. Climate plays a pivotal role in determining growth, development, and perpetuation of all organisms on the earth. There is a need to understand the nature and consequences of the climate crisis, and to develop evidence-led strategies to respond.

In recent decades, changes in climate have caused impacts on natural and human ecosystems on the earth. Impacts are due to observed climate change, irrespective of its cause, indicating the sensitivity of natural as well as managed ecosystems to such change. This occurs as a result of a variation in the climatic system functioning, interacting among its components, or changes in external forces either naturally or due to anthropogenic reasons. The ecological, environmental, and economic costs of not understanding these interactions can be substantial. Rising atmospheric CO₂ and temperatures are expected to pose both direct and indirect consequences for agricultural production, sustainability, and food security.

Pakistan is one of the most vulnerable countries to climate change despite being a low carbon emitter. Pakistan is at risk of extreme weather variations and unexpected occurrences. The gradual increase in air and soil temperature will cause water scarcity, while recurring heatwaves will intensify the situation and worsen droughts.

There is a pressing national and international need to understand the nature and consequences of climatic change and to develop adaptation strategies. 2nd International Conference on Soil, Plant and Environmental health Under Climate Change will cover climate impacts, methodological approaches, climate change economics and policy, vulnerability and adaptation. Event will provide an interdisciplinary academic environment for understanding the socio-political, technological and institutional complexities associated with the transition to a low carbon economy and climate resilient adaptation.

SCOPE

The conference will provide opportunities for systematic understanding of climate change and its implications for food security, energy and water nexus, livelihoods, demonstration of methodological research and policy competence for issues related to climate change, land use, soil and plant health under changing climate, forge long-term partnerships for sustainable development and deliberate on socioeconomic perspective including geopolitics, economics and ethics of climate change as well as other related issues and aspects.

The registered participants will have an opportunity to meet and greet with world-renowned scientists, researchers, and academicians to discuss research challenges and solutions, unleash and share new ideas and avenues, and initiate joint projects and collaborations with industry and research institutes. The stakeholders including political leadership, government officials, academia, and researchers together with growers, input suppliers and service providers will participate in this distinguished event to find out solutions of contemporary issues in the backdrop of climate change through recent technological advances. Emerging challenges and associated trade-offs for their management will be considered and pragmatic strategies will be chalked out.

We cordially invite you and your organization for an active participation and looking forward to welcome you at conference. For further information about conference, please feel free to email at schc@mnsuam.edu.pk.

VISAS

Participants from other countries will make their own arrangements for obtaining the Pakistani visa by contacting the Pakistani Embassies and Consulates in their home countries. If needed, the organizers will send official letters to the interested people confirming their participation in the conference.

VENUE

The conference will be held at MNS-University of Agriculture, Multan, Pakistan. It is an emerging public sector university with good linkages with progressive farmers of the area, research institutes and agricultural departments present in the periphery of the Varsity. Multan is the sixth largest city of Pakistan, is the center of Islamic mystical Sufis rich culture, and earned the title of city of saints. The city is surrounded by historical Islamic sites "a collection of the famous master piece of sufi shrines along with the neighboring city of "Uch Sharif". The city is well connected with the world through Multan International Airport with frequent national and international flights and connected to the rest of Pakistan through local air flights, railways and all type of public transport.

THEMES

CLIMATE CHANGE AND CLIMATE SMART AGRICULTURE

- Climate change mitigation strategies and climate smart agriculture (crops, livestock, agroforestry, aquaculture and fisheries etc.) through sustainable use of natural resources
- Development of climate resilient crop varieties/animal breeds
- Modeling for predicting climate change events and decision support
- Climate resilience in the Indus Delta

SUSTAINABLE SOIL AND ENVIRONMENT HEALTH IMPROVEMENT

- Regenerative agriculture
- Biological and management interventions for improving soil and environment health
- Crops and livestock residue management for conservation/protection of environment
- Innovative technologies for safe use of sewagewater and bio-solids
- Innovative technologies and use of microbes for improving soil organic matter
- Use of microbes for efficient utilization of fertilizers
- Management of pesticide and heavy metal residues soil and food chain
- Voluntary carbon markets
- Community access to clean energy

CROP PRODUCTIVITY ENHANCEMENT

- Breeding crops and vegetables for high yield, nutritional quality and biofortification, resistance to biotic and abiotic stresses
- Crop nutrition management
- Production technologies for various cropping systems and climatic zones
- Converting marginal lands and deserts in green lands

IMPROVED CROP PROTECTION

- Conservation strategies of insect pollinators
- Surveillance technologies and methodologies for effective monitoring of insects, pests and diseases of crops

THEMES

CROP DIVERSIFICATION

- Commercial production of indigenous and exotic medicinal plants and high value crops
- Adoption of new crops and fruits for diversification and improving farm income
- Risk management strategies in agriculture

MODERN INNOVATIVE TECHNOLOGIES

- Biotechnological, genomics and bioinformatics approaches for improving plant traits
- Plant microbe interaction and metabolic engineering
- Use of nanotechnologies in improving agriculture
- ICT tools for decision making
- Digital agriculture

RESOURCE CONSERVATION AND EFFICIENT UTILIZATION

- Efficient use of energy resources and development of renewable energy systems
- Innovative technologies for the use of biomass and wastes
- Hydrogeology
- High efficiency irrigation systems and other technologies for improving water and land use efficiency
- Developing new production technologies of crops for efficient utilization of inputs
- Water, sanitation and hygiene

ECONOMIC POLICY PERSPECTIVE FOR CHANGING CLIMATE

- Strategies to mitigate climate and disaster risk
- Strategies for uplifting socio-economic conditions of the communities
- Economically viable labour saving technologies
- Increasing income from small farms
- Developing economically viable decent work in agriculture
- Exploring the productivity and poverty nexus
- Unlocking climate finance for resilient food systems and nutrition
- Social entrepreneurship for climate resilience

Important Dates

Sr.No.	Subject	Date
1	Abstract submission	February 28, 2024
2	Acceptance/Rejection	March 15, 2024
3	Submission of full length paper	March 25, 2024
4	Conference	April 16-17, 2024

Registration Fee

Sr.No.	Subject	Before Feb. 28 2024	After Feb. 28 2024
1	Students	1200PKR	1700PKR
2	Researchers/Faculty/Academia	3000PKR	3000PKR
3	Company Representatives/Govt. Officials	3500PKR	4000PKR

Conference registration fee can be deposited in the following account:

PK82UNIL0109000232871481

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