



THE UNIVERSITY OF
ALABAMA



USAID's Higher Education System Strengthening Activity

Pakistan Climate Resilience Research Coordination Network (PAK-Climate RCN)

Inaugural Workshop
July 12-14, 2023

Workshop facilitators

Dr. Jennifer Weidhaas
Associate Professor, Civil and Environmental Engineering
Director Environmental Sustainability and Urban Resilience laboratory (E-SURe)
University of Utah, USA

Dr. Steven Burian
Professor, Department of Civil, Construction and Environmental Engineering
Executive Director, Cooperative Institute for Research to Operations in Hydrology (CIROH)
Director of Science, Alabama Water Institute
The University of Alabama, USA

Dr. Asim Zia
Professor of Public Policy & Computer Science
Department of Community Development and Applied Economics & Department of Computer Science
Director Sustainable Development Policy, Economics & Governance Ph.D. Program
Director Institute for Environmental Diplomacy and Security
Co-Director: Social Ecological Gaming and Simulation Lab
University of Vermont, USA

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Envisioning the PAK-Climate Research Coordination Network

Motivation for the Research Coordination Network

The world faces incredible challenges that are being driven in many ways by climate change. In Pakistan in June and August of 2022, torrential rains led to unprecedented disaster. Affecting over 33 million people and displacing over 8 million, the flooding impacted over one third of the country. In total, 1700 people died as a result of the flooding. Climate extremes leading to floods, drought, heat exposure, crop failure, livestock fatality, water quality degradation, and more are projected to increase in intensity and frequency in the coming years and decades as a result of climate change. Pakistan is considered the eighth most at risk country to the manifestations of climate extremes.

HESSA provided a forum November 30 to December 2, 2022 for dialog about climate change as part of its International Summit on Higher Education and Workforce Development in the 21st Century. Major conclusions included the following calls to action for higher education:

1. Integrate climate change in higher education.
2. Expand interdisciplinary research and knowledge on prediction and adaptation to climate change.
3. Characterize the national baseline picture of Pakistan's current climate adaptation level.
4. Assess institutional capacities to advance adaptation efforts.
5. Provide guidance from stakeholders and policy makers about the future scope of (climate adaptation) action.
6. Coordinate and synthesize adaptation-related research in Pakistan to establish what is worth scaling up and how, identify gaps in adaptation knowledge, and define future adaptation roadmap.
7. Undertake climate profiling of vulnerable geographical pockets to advance adaptation planning and prioritizing actions to safeguard livelihoods and assets at risk.
8. Implement incremental solutions as they become available rather than waiting for the perfect solution to emerge.

A mandate issued to the higher education sector was to take a leadership role in catalyzing teams and ideas to help communities adapt and build resilience through teaching, research, and local community service rather than waiting to seek guidance or support from the Ministry of Climate Change, Higher Education Commission, or other government office. In response to these calls to action, HESSA proposes to organize the Pakistan Climate Research Coordination Network (Pak-Climate RCN). The overall goal of the RCN is **advance the capability of researchers to co-produce science-to-action interdisciplinary research, education and workforce development that improves climate adaptation and resilience in Pakistan**. HESSA proposes to accomplish this goal by:

1. Establishing a research coordination network steered by participating HESSA HEI researchers and guided by shared goals, a collaborative mindset, and a plan for sustained engagement.
2. Strengthening the capabilities of participating faculty in research development, grant writing, and research methods.
3. Building transdisciplinary teams around critical focal research areas.
4. Mobilizing research teams to identify funding opportunities and write proposals.
5. Launching international research partnerships aligned with key focal research areas.

The Pak-Climate RCN participants are envisioned to include a multi-sector collection of individuals in Pakistan and internationally, involved in climate research and education, including but not limited to:

- Academic faculty and their students
- Government officials
- Funding agencies
- Non-governmental organizations
- Businesses, Agriculture, Industry
- Public health professionals
- Community leaders

PAK-Climate RCN inaugural workshop

Workshop Goal

The aim of the inaugural workshop is to bring academic, government, nonprofit, and private sector researchers together to exchange ideas, facilitate collaborations, and identify new use-inspired research ideas that advance climate resilience in Pakistan. The workshop will allow thought leaders, government officials, businesses, civil society, and the international donor community working on climate change issues the opportunity to guide the development of research project ideas and a critical path forward for mobilizing Pakistan's higher education sector to improve Pakistan's climate resilience.

Major outcomes of workshop

Proposed outcomes from the inaugural workshop include:

1. Assemble a core of individuals from HESSA HEIs involved in climate research or climate change adaptation in Pakistan;
2. Engage a broad sector of potential research partners and sponsors;
3. Synthesize near term climate change science-to-action research ideas of most value to building Pakistan's climate adaptation and resilience capacity;
4. Generate proposal contents and research teams to address near term, science-to-action research ideas; and
5. Define initial activities of the Pak-Climate RCN.

Invited participants

Invited participants to the Pak-Climate RCN inaugural workshop will include:

- Faculty engaged in climate change research
 - Academic faculty from HESSA HEIs identified by Vice Chancellors
 - Academic researchers involved in climate change issues
- Funding agencies
 - Higher Education Commission (HEC)
 - Pakistan Science Foundation (PSF)
- Governmental organizations
 - Ministry of Climate Change
 - Global Change Impact Studies Centre (GCISC)
 - Pakistan Council for Research on Water Resources (PCRWR)
 - Pakistan Agriculture Research Council (PARC)-Islamabad
- Businesses and Professional Organizations
 - Pakistan Business Council (Karachi)
 - Pakistan Engineering Council (PEC)
 - Pakistan Medical Association (PMA)
- Non-governmental organizations
 - Sustainable Development Policy Institute (SDPI)
 - International Water Management Institute (IWMI)
 - International Union for the Conservation of Nature (IUCN)
 - World Wildlife Fund (WWF)
- International aid organizations
 - International Committee of the Red Cross (ICRC)
 - International donors (e.g., USAID)
 - United Nations Development Program (UNDP)

AGENDA

Day 1: July 12, 2023

| Time | Session |
|-------------|---|
| 9:30-11:00 | Welcoming Remarks from HESSA and USAID Keynote speaker: Nadia Rehman, Member Climate Change and Food Security-Planning Commission of Pakistan Topic: Science of Climate Change in Pakistan Keynote speaker: Nisar A Memon, Chairman Water Environment Forum Pakistan Topic: Overview of Pakistan's Climate Change Policies |
| 11:00-11:20 | Break |
| 11:20-1:00 | Panel Discussion: Cross-Sector Perspectives of Climate Change Challenges, Opportunities, and Resilience Solutions Panelists from agriculture, business, public health, engineering, technology and environment, including: <ul style="list-style-type: none"> • Dr. Adnan Khan, CEO ResDev • Ahmed Umair, CEO Vital Agri Nutrients Ltd, Senior Specialist Merged Areas Government Project, UNDP • Syed Hasan Raza, Chief Executive Dairy Solutions Pvt Ltd • Iskander M Khan, Director Premier Group of Companies • Ms. Saima Munawar, Deputy Director (Research and Investigation) Environmental Protection Agency • (Air Commodore Retd) Tanveer Paracha, Director Coordination, National Disaster Management Authority |
| 1:00-2:00 | Lunch |
| 2:00-4:00 | Breakout sessions: Identifying climate change impacts driving cross-institutional, transdisciplinary research needs for adaptation and resilience in Pakistan Track 1: impacts to water resources and interconnected infrastructure systems Track 2: impacts to public health, justice and equity Track 3: impacts to agriculture and food security |
| 4:00-4:15 | Break |
| 4:15-5:00 | Facilitated discussion of use-inspired problem and research need lists |

Day 2: July 13, 2023

| Time | Session |
|-------------|---|
| 9:00-10:00 | Keynote speaker: HEC Research Office Topic: Climate Adaptation and Resilience Research Opportunities with the HEC Keynote speaker: Muhammad Shehryar Topic: Energy Solutions in Pakistan: Connections of Climate Research and Technology Development to Business |
| 10:00-10:15 | Break |
| 10:15-12:00 | Breakout sessions: Generating research ideas and teams aligned with near term research needs to improve Pakistan climate resilience |
| 12:00-12:30 | Facilitated discussion: Review of use-inspired research ideas and discussion of funding and implementation |
| 12:30-13:30 | Lunch |
| 13:30-14:00 | Presentation: Dr. Jennifer Weidhaas, University of Utah Topic: Drafting Winning Transdisciplinary Proposals |
| 14:00-15:30 | Breakout sessions: Developing a user-inspired research project outline |
| 15:30-15:45 | Break |
| 15:45-17:00 | Breakout sessions: Developing a user-inspired research project outline |
| 17:00 | Close Day |

Day 3: July 14, 2023

| Time | Session |
|-------------|--|
| 9:00-10:00 | Team project pitches of use-inspired, cross-institutional, transdisciplinary ideas. Feedback on pitches from stakeholders. |
| 10:00-11:30 | Presentation: Dr. Asim Zia, University of Vermont Topic: Stimulating Team Science for Use-Inspired Climate Adaptation Presentation: Dr. Steven Burian, University of Alabama Topic: Creating a Cooperative Research Institute to Address the Critical Water Challenges in the United States Presentation: Mr. Mohammad Jehanzeb Khan, SAPM Governance Effectiveness Topic: Cooperative Research Institute needs in Pakistan Closing Remarks from Additional Secretary Ministry of Climate Change |
| 11:30-11:45 | Break |
| 11:45-12:15 | Breakout session: Mobilizing the RCN |
| 12:30-1:00 | Facilitated discussion: RCN advancement and next steps |
| 1:00 | Adjournment |