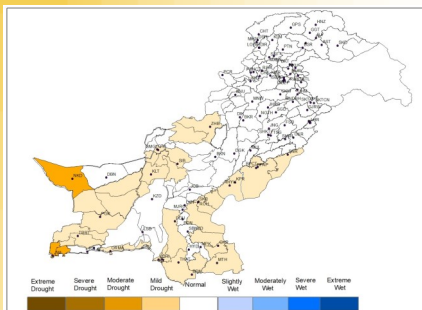
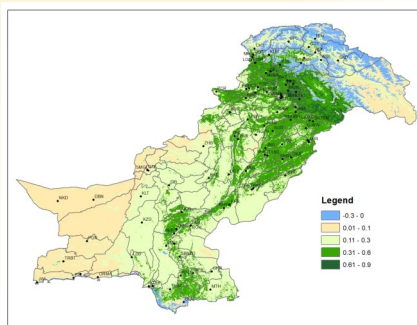


## Drought Monitor



## Normalized Difference Vegetation Index (NDVI)



## NATIONAL DROUGHT MONITORING AND EARLY WARNING CENTRE, PMD

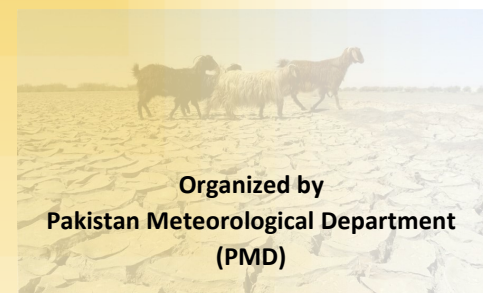
National Drought Monitoring Centre is the only dedicated Centre in South-Asia for drought monitoring serving since 2005. Main objectives:

- Serve as a hub for the collection, consolidation and analysis of drought related data from all possible sources in the country.
- Prepare and issue monthly drought bulletins & moisture stresses in different regions of country based on various indices.
- Advising government agencies on drought related matters including drought declaration.
- Conduct research in drought related issues and develop statistical models for improved drought

### Workshop Coordinator:

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## International Workshop on “Droughts over Pakistan in the Changing Climate”



February 21-22, 2024

Hosted by  
International Centre for Climate Change, Food  
Security & Sustainability (ICCFs), The Islamia  
University Bahawalpur (IUB)



Venue: IUB, Bahawalpur



## Abstract

With climate change intensifying, drought has emerged as a critical challenge for regions like Pakistan, where water scarcity can have profound socio-economic implications. Pakistan has a history of experiencing droughts, with varying degrees of severity and impacts on different regions of the country. The causes of droughts in Pakistan are diverse, including climatic factors, such as irregular rainfall patterns and high temperatures, as well as anthropogenic factors, including population growth, deforestation, and water mismanagement. This workshop targets to explore cutting-edge concepts and methodologies for drought monitoring tailored to the evolving climate changes in Pakistan.

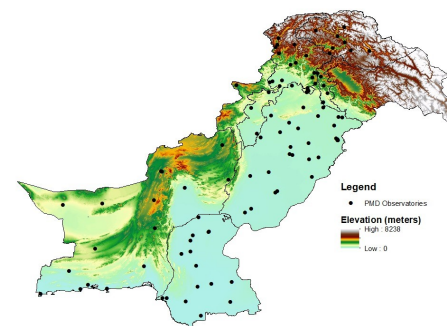
## Key Concepts to Explore:

**Climate Data Analytics:** Analyzing historical climate data to identify patterns and trends related to drought occurrence. Incorporating climate models for future projections and scenario planning.

- **Climate Data Analytics:** Analyzing historical climate data to identify patterns and trends related to drought occurrence. Incorporating climate models for future projections and scenario planning.
- **Integrated Remote Sensing and GIS Technologies:** Utilizing satellite imagery and geographic information systems (GIS) to monitor changes in land cover, vegetation health, and water resources.
- **Community-Based Monitoring and Early Warning Systems:** Engaging local communities in monitoring and reporting drought impacts.
- **Integrated Data Platforms:** Discuss the development of integrated data platforms that combine meteorological data, hydrological data, and socio-economic indicators to provide a comprehensive understanding of drought dynamics and their impacts on communities.
- **Localized Impacts and Policy Frameworks for Drought Resilience:** Analyze the localized impacts of drought on various sectors and examine the current policy and anticipatory actions.

- **Collaboration, Capacity Building and Public Awareness:** To raise awareness about drought risks and sustainable water use. Building the capacity of relevant stakeholders, including government agencies, NGOs, INGO's and local communities. Collaboration among stakeholders by synthesizing different government and non-government agencies.

This workshop aims to foster an inclusive and multidisciplinary dialogue, bringing together experts from meteorology, hydrology, agriculture, policy-making, and community development. By synthesizing diverse perspectives, we hope to develop actionable strategies that can enhance drought monitoring and resilience in the face of a changing climate in Pakistan.



PMD Observational Network