

Online Workshop on
**Climate Change Impact on
Agriculture and Biodiversity in
North-East India**
(1st – 5th March 2022)



Organized by
**DST's Centre of Excellence
Department of Environmental Science
Tezpur University
Assam**

About Tezpur University

Tezpur University was established by an Act of Parliament in the year 1994 with a vision to develop human excellence and inculcate leadership through hard work and creativity. The university campus is located at Napaam about 15 km east of Tezpur, the headquarters of the Sonitpur district of Assam. In the year 2016, the university has been awarded as Visitor's Best University. The university is also able to achieve 5th rank among the universities in an assessment of higher education institutions in India conducted by the Ministry of Human Resource Development (MHRD), Government of India, through the National Institutional Ranking Framework (NIRF). The university has been re-accredited with "A" grade with a CGPA 3.25 by National Assessment and Accreditation Council (NAAC) which was valid up to 2021. Tezpur university holds 46th position in MHRD NIRF Ranking 2021.

About Department of Environmental Science

The Department of Environmental Science, Tezpur University was established in the year 2004. The department provides M.Sc. and Ph.D. programme with a mission to *impart knowledge with quality teaching and research to answer fundamental questions before mankind in regard to environmental challenges with a special focus on contemporary national needs*. The department is supported by UGC-SAP and DST-FIST. The department is carrying out various research project to produce quality information about the environment and to identify the immediate measures for mitigation of environmental degradation. DST's Centre of Excellence project on "*Climate Change Impact on Agriculture and Biodiversity in North-East India*" under the **Climate Change Programme Division** as part of **National Mission for Sustaining the Himalayan Ecosystem (NMSHE)** focus on the assessment of the effect of changing climate and environmental conditions on sustainable livelihoods of people inhabited in different eco-climatic zones of Northeast Eastern region.

Background

Climate change is a complex alteration of weather system, which is responsible for increasing in severity and frequency of the occurrence of drought, complex seasonal variation of rainfall and intense heat waves. Such change in weather patterns may affect natural as well as socioeconomic systems. The urgent need to both mitigate and adapt to global climate change has been identified as a concern which requires developing adaptive practices and models based on traditional and contemporary knowledge about natural system. The workshop will focus on the likely impacts of climate change on bio-resource and explore approaches for choosing climate resilient practices in the fields of forestry, agriculture and bio-resource conservation for improving the livelihood of the local community.

Organizing Committee

- Chief Patron: Vice Chancellor
- Patron: Pro Vice Chancellor
- Chairman: R.R. Hoque, HoD, Department of Environmental Science
- Co-Chairman: A. K. Das
- Convener: Ashalata Devi
- Co-convener: Nirmali Gogoi, Amit Prakash and Sumi Handique
- Members: S.S.Bhattacharya, Nayanmoni Gogoi, Santa Kalita and Pratibha Deka

Themes:

1. Adaptation and resilience in agriculture and forest ecosystem
 - Role of change markers
 - Cost of adaptation
 - Decision support systems
2. Biomes, biozone and bioresources
 - Forest reductions, hydrological cycles and ecological surprises
 - Understanding thresholds of North East India
 - Global climate change and regional rates of forest shrinkage
3. Climate vulnerability and modeling approaches
 - Projection, analyses and assessment
 - Tools and approaches for resilience
 - Abrupt events in North East India

Resource persons

Dr. Arup Kumar Sarma (Prof., Dept. of Civil Engg., IIT-G)

Specialisation: Modeling and Simulation in Free Surface Flow, Heuristic Methods in Reservoir Optimization, GIS Based Watershed Modeling

Dr. Arun Jyoti Nath (Assoc. Prof., Assam University, Assam)

Specialisation: Plant Ecology and Management, Adaptation and Mitigation Strategy for Climate Change, Biocarbon Sequestration

Dr. Ramachandra T. V. (Scientific Officer - Gr 1, Centre for Ecological Sciences, IISC, Bangalore)

Specialisation: Energy Planning, GIS and Remote Sensing, Aquatic Ecosystems (Lakes, Ponds, rivers), Bioremediation, Constructed wetlands, Natural Resources Management, Spatial Decision Support System, Western Ghats Ecology and Biodiversity, Urban Planning.

Dr. H. Suchitra Devi (Scientist/Engineer SF, NESAC, Shillong)

Specialisation: Remote Sensing and GIS applications in forest resources mapping and wildlife habitat management, and species distribution modelling.

Dr. Sudip Mitra (Assoc. Prof., Head, Centre for Disaster Management, IIT-G)

Specialisation: Natural Resources Management and Livelihood, Vulnerability & Adaptation in Agriculture sector

K.S.P.V. Pavan Kumar (Member Secretary, ASBB, Assam)

Specialisation: Forest and Biodiversity Conservation

Dr. S. Chakraborty (Scientist F, IITM, Pune)

Specialisation: GHGs dynamics, Atmosphere-biosphere interaction, Isotope Hydrology, Paleoclimatology

Dr. Ujjwal Kumar (Asst. Prof., Doon University, Uttarakhand)

Specialisation: Statistical/Time Series Modelling and Forecasting, Data Assimilation, Chemical Transport Models (CTMs), Atmospheric Remote Sensing, Aerosols, Black carbon, Nonlinear Dynamics and Chaos Theory, Coupling of CTMs and climate models

Dr. D. C. Baruah (Prof., Dept. of Energy, Tezpur University)

Specialisation: Bioenergy, Rural and agriculture energy management

Dr. K. K. Baruah (Prof. & Dean, Royal Global University, Assam)

Specialisation: Green House Gas emission and mitigation, Stress Physiology & Biochemistry and Carbon sequestration

Dr. K P Sarma (Retd. Prof., Dept. of Env. Sc., Tezpur University)

Specialisation: Environmental pollution and remediation

Dr. A. K. Das (Prof., Dept. of Env. Science, Tezpur University)

Specialisation: Riverine hazards, landforms, Socio-environmental issues

Target Participants

The workshop is aimed at professionals/scientists/researchers/students who are intended to acquire additional knowledge on recent advances in bioresource management to cope with the changing climate.

Registration fee: Free

How to apply

Interested participants must submit the filled-in google form using the link <https://forms.gle/DGqZoNa1xUgupfDS7> before 25th February 2022. Sign-in URL's will be emailed to each confirmed participant.

Certificate: E-certificates will be issued upon filling up of feedback form.

Contact address:

Convenor

DST's Centre of Excellence

Department of Environmental Science

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Sonitpur, Assam

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