



ICBBES-2023



MZU-IES Conference 2023

**International Conference
on
Biodiversity, biogeochemistry, and
ecosystem sustainability in changing
environment**

(14th - 16th June 2023)



**Organized by,
Department of Forestry
School of Earth Sciences & Natural Resource
Management
Mizoram University
(A Central University)
Aizawl- 796 004, Mizoram**

BACKGROUND

The natural environments in which human societies have evolved, particularly the forests found in the tropics, are crucial to our very survival. In order to obtain the products and services that were in equilibrium in the prehistoric times, these civilizations



engaged with many components of natural ecosystems. Developmental activities ushered in the anthropocene era, during which humans consumed more than 60 percent of the planet's natural resources and dumped their industrial and domestic wastes in natural/derived ecosystems, making them the dominant species on Earth. The upshot has been a decline in biodiversity, productivity, and predictability in weather, all of which have had a severe impact on human health and the ability of these ecosystems to supply goods and services. Because of this, food security is at risk in many areas, which lowers standards of living and threatens the continued existence of humanity.

With only 2.4% of the world's geographical area, India is one of the mega diversity rich countries thanks to its 8% part of the world's biodiversity and its high degree of endemism. India is home to not one, not two, but four of the world's 35 biodiversity hotspots: the Western Ghats and Sri Lanka; the Himalayas; Indo-Burma; and Sundaland. Large numbers of plants and animals, many

of them endemic, are found in these regions; many of them are also included in IUCN's red data book. A wide variety of forest types, from tropical moist evergreen to sub-alpine and alpine, are found in the region. With such a high degree of interdependence between species and ecological processes, tropical rain forests are an exceptionally delicate and difficult ecosystem to study. Therefore, the extinction of a single species has the potential to have a catastrophic effect on other species and the various ecosystem processes that rely on that species. In addition to providing a wide variety of non-timber forest products (NTFPs) as a means of ensuring food security, these forests also play an important role in regulating the hydrological cycle, the dynamics of carbon and nitrogen, the decomposition process, and the conservation of soil and moisture.

Traditional farming methods have resulted in an abundance of agro-biodiversity in areas controlled by



indigenous people. Of the 320 wild relatives of cultivated plants, 132 are found in the North-eastern region and 82 in the Eastern Himalayas; many of these are endemic or uncommon taxa. For plant breeders, the wild cousins of cultivated plants are an invaluable source of genetic variety for creating new climate-resilient agricultural crop varieties.

In collaboration with Indian Ecological Society

Changes in land use and land cover, rising temperatures, and shifts in eco-system bio-geochemistry resulting from various anthropogenic activities are the key contributors to the decline of biodiversity, ecosystem functioning, and sustainability in these regions.



The rural population of northeast India mostly relies on shifting cultivation as their primary means of subsistence, and this practise dates back millennia. There has been a recent shift toward shorter fallow periods and more widespread use of shifting agriculture in the area, both of which have negative effects on the native and derived ecosystems and the services they provide. To ensure their own survival, people overexploit forest resources, which has a negative impact on natural forests and biodiversity and poses a severe threat to the civilization through forest degradation, decreases in soil fertility, agricultural yields, food security, and ecological equilibrium.

Wildlife habitats are being destroyed, important plant and animal genetic resources of rare/endemic taxa are thus being lost, and the hydrological cycle is being disrupted, all of which can lead to disastrous events like floods and droughts as a result of the conversion of forested land to other uses, such as agriculture, mining, and the establishment of new industries.

This international seminar will focus on the ways in which human activities are altering the biodiversity, ecosystem functioning, and food security choices in the tropical terrestrial ecosystems. The conference will also look into ways to improve food security in rural areas by recommending measures to preserve biodiversity and creating a plan for long-term economic growth.

MAJOR OBJECTIVES

- To identify the challenges & drivers for change in biodiversity conservation, ecosystem functioning and food security options and to understand the role of policies and their impacts.
- To discuss opportunities for sharing practical knowhow and experiences on the subject.
- To create an opportunity to gain insight to develop preparedness for adopting various management practices to adopt and mitigate anthropogenic effects on ecosystem.



TECHNICAL SESSIONS

- Biodiversity in ecosystems
- Agribiodiversity and food security
- Natural Resources Management
- Biodiversity conservation-issues & challenges
- Biogeochemistry and soil fertility
- Climate change and ecosystem functioning
- Sustainable Livelihood
- Policy issues in biodiversity and food security
- Indigenous Traditional Knowledge
- Ecorestoration of degraded ecosystems
- Soil and water conservation
- Soil microbial ecology
- Rhizosphere Ecology
- Dendrochronology

AWARDS

- Best Oral Presentation Awards
- Best Poster Presentation Awards

ABOUT THE UNIVERSITY

Mizoram University (MZU) was established on July 2, 2001, by an Act of Parliament that was published in the Indian Gazette on April 25, 2000, as a Central University with His Excellency, the President of India as its Visitor.



As per the Act, the University's objectives are "to disseminate and advance knowledge by providing instructional and research facilities in such branches of learning as it may deem fit, to make provisions for integrated courses in humanities, natural and physical sciences, social sciences, forestry and other allied

disciplines in the educational programmes of the University; to take appropriate measures for promoting innovations in teaching-disciplinary studies and research; to educate and train man-power in the development of the state of Mizoram; and to pay special attention to the improvement of the social and economic conditions and welfare of the people of that State, their intellectual, academic and cultural development". Keeping these goals in mind, the University has launched a number of academic and administrative growth programmes over the years.



ABOUT THE DEPARTMENT

The Department of Forestry was established in 1990 as a campus of the North Eastern Hill University, Shillong with an aim to undertake teaching and research activities in frontier areas of forestry to cater human resource that can support livelihood options for the region. After the establishment of Mizoram University, a Central University, passed by the act of Parliament in 2000, the Forestry continued its education and research programs as a full-fledged department under the umbrella of the Mizoram University.

The department has established as a leading centre of forestry research and education in the region by producing number of skilled human resources who are actively involved in biodiversity conservation and sustainable forest

management through their activities in teaching, research, administration and NGOs.

ABSTRACT AND FULL PAPER

Abstracts are invited from Teachers/ Research fellows, post graduate students, NGOs and industries etc. Abstracts can be submitted under broad thematic areas of the conference within 400 words using 12-point font in Times New Roman and 1.5 line spacing. The abstracts can be mailed to icbbesce@gmail.com. All the abstracts will be reviewed by an expert committee and the selected authors will be further intimated by email on or before 1st June 2023.

Important dates

- Receipt of Abstract : 31st May 2023
- Last date for receipt of Full Text of paper : 31st May 2023

How to Register

- Applicants should fill in the prescribed Application Form given at the end of the this brochure and submit it by e-mail to icbbesce@gmail.com. In case of any difficulties, contact Prof. S.K. Tripathi, Department of Forestry, mobile phone +91 9436353773.
- **Last date for submission of Application and registration fees is 31st May, 2023.**

Registration charges:

	Early registration on or before (10 th May, 2023)	Registration before (31 st May 2023)	Spot registration
Overseas participants	US\$ 350	US\$ 400	US\$ 450
Overseas students	US\$ 150	US\$ 200	US\$ 250
Participants from SAARC countries	US\$ 100	US\$ 150	US\$ 200
Students from SAARC countries	US\$ 80	US\$ 100	US\$ 120
Indian participants	Rs. 2500	Rs. 3000	Rs. 3500
Indian students	Rs. 1500	Rs. 2000	Rs. 2500
Participants from Industry	Rs. 3000	Rs. 4000	Rs. 5000

Mode of payment: Registration fee may be deposited directly to the account given below.

Account number: 1548050000408

Swift code: PUNBINBBISB

IFSC code: PUNB0154820

Scanned/soft copy of registration fee along with registration form may be sent to Convener, "ICBBESCE" at e-mail icbbesce@gmail.com

Accommodation:

Accommodation will be arranged in University guest house and hotels in Aizawl on written request from participants specifying their requirement. The free accommodation will be provided only to selected candidates depending on the grants available with the Organizing Committee.

Exposure Visit:

Exposure visit for all the participants will be arranged on the last day of conference.

How to reach Aizawl ?

Aizawl is well connected by air transport through Lengpui Airport which provides connectivity to Kolkata, Guwahati and Imphal airports and also connected by Rail through Silchar Railway Station located about 170 km away from Aizawl.

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