





'International Conference on Bioresources & Bioeconomy' (ICBB-2025)

Organized by

Department of Botany, Nagaland University, Lumami 798 627, Nagaland, India

<u>September 15-17, 2025</u>

Conference webpage: <u>https://icbb2025.nagalanduniversity.ac.in/</u>

For Registration, please visit website or follow <u>https://forms.gle/CQp9ybQ8nbTsX8MZ6</u> Organizing Committee

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- 14. Dr. S. S. Samant, Former Director, ICFRE-HFRI, Shimia, Emeritus Scientist, UCOST-Manaskhand Science Centre, Almora, Uttrakhand, India.

About Department of Botany, Nagaland University: The Department of Botany was established on September 6, 1997, and commenced its operations on September 19, 1997. It offers comprehensive Postgraduate and Doctoral (Ph.D.) programs. The Department has been recognized with significant national accolades, including the 'Centre for Biodiversity Studies' under the UGC-SAP (DRS-I, II, and III) program by the University Grants Commission, New Delhi. Further support comes from the Department of Science & Technology (DST-FIST) and the Department of Biotechnology (Advanced Level Institutional Biotech Hub), both from the Government of India. In addition to these institutional grants, the Department has actively secured substantial research funding from various leading government agencies such as CSIR, GBPIHED, DBT, DST, MoEF&CC, and UGC, successfully completing over 37 major research projects. Equipped with modern research facilities, the Department also proudly maintains its own Botanical Garden, Experimental Garden, and Orchidarium, fostering a rich environment for academic and scientific pursuits.

Theme of the Departmental Research is 'Inventory of Plant Genetic Resources of Nagaland, Conservation and Sustainable Development'. Beside R&D activities, Department also endeavored in 'Human Resource Development' through 'Skill Development Programmes (regular 'Hands on Training Programmes' for 'Research Scholars, Faculties, SHGs). Emphasis is given to maintain high quality research and equip the students to serve the society efficiently through transfer appropriate technology to the local community for sustainable growth. Some of the ongoing research activities focused on- Inventory of Plant Genetic Resources of Nagaland with Special Reference to Orchid, Wild *Musa*/Banana, Wild Mushrooms, Underutilized Wild Edible Plants, Plant Biodiversity Register, Ethnobotanical research and floristic studies; Macro and micro propagation of RET and economically important plants and conservation; Microbial resources exploration from unique ecological niches and mycorrhizal application for reforestation programmes; Molecular Taxonomy; Molecular Biotechnology; Fermented food and food processing; Forest ecology etc.

About the Conference

In 2025, India is making significant strides in its bioeconomy, aiming for a \$300 billion sector by 2030. This focus on bioresources and the development of a circular bioeconomy is driven by a commitment to innovation, sustainability, and inclusive economic growth. The goal is to become a global hub for bio-manufacturing, particularly in bio-pharma and bio-agriculture. Bioresources play a crucial role in building a sustainable and circular economy by providing renewable alternatives to fossil-based resources and promoting waste reduction and resource efficiency. This involves utilizing renewable biological resources to produce food, materials, and energy while minimizing waste generation. The bioeconomy is the use of renewable biological resources to produce food, energy and industrial goods, which supports sustainability and economic growth. Innovations like gene editing and bio-printing are driving progress, while integration across sectors strengthens long-term impact. By aligning biotechnology with digital tools and circular economy principles, the bioeconomy offers sustainable solutions to environmental challenges and promotes overall societal well-being.

India's vision for the bioeconomy is rooted in innovation-led growth, sustainable development, and inclusive economic progress. The country aims to become a global hub for bio-manufacturing, backed by strong R&D infrastructure, cutting-edge technologies, and a skilled scientific workforce. The focus is on creating a resilient industrial ecosystem that promotes the development and commercialization of new biotech products, while unlocking opportunities in both urban and rural regions. With an ambitious target of achieving a \$300 billion bioeconomy by 2030, India also seeks to lead globally in bio-pharma, including vaccines, diagnostics, and therapeutics. This strategy directly contributes to the broader goals of India@2047, emphasizing sustainability, economic self-reliance, and green growth.

Biotechnology is emerging as a transformative force in addressing global challenges related to environmental sustainability and energy conservation. By leveraging cutting-edge innovations in bio-manufacturing, bioresources, and bioenergy, India is actively advancing its commitment to green growth and a sustainable future. The Department of Biotechnology (DBT) has been at the forefront of driving policy reforms and research initiatives aimed at fostering a bio-based economy that aligns with the nation's environmental and economic goals. India's bioeconomy, leveraging biotechnology for sustainable and circular practices, is experiencing rapid growth. This includes using bioresources for energy, bio-based products, and promoting circular economy principles like waste reduction and resource efficiency. Government initiatives, like the National Bio-economy Mission and the Biotechnology Industry Research Assistance Council (BIRAC), are supporting this growth, fostering innovation and commercialization in the sector.

According to India BioEconomy Report (IBER 2024), India's Bioeconomy nearly doubled in value from \$86 billion in 2020 to \$165.7 billion in 2024. It currently contributes 4.25% of India's GDP. The sector has shown a Compound Annual Growth Rate (CAGR) of 17.9% over the past four years (which covers the period from 2021-2024). The report also mentions that the initial target of \$150 billion by 2025 was surpassed,

reaching \$165.7 billion in 2024. Further, the report states that "If favourable business environment is created, the biotechnology and healthcare sectors combined will be able to grow at a rate of 25-30% and have the potential to create \$300 billion Bioeconomy by 2030" (IBER, 2024).

Bioresources and Bioeconomy are beyond an economic sector as it affects the ethical values of relationship between society and nature and their consequences. Hence, it should honour the different social and economic circumstances of different countries and areas. It also cohesively attached with efforts to mitigate challenges of climate change, a driving force of future global economy as desired in the UN sustainable development goals. Any effort towards the development of bioeconomy and the value associated with it go beyond financial, technological and or statistical dimensions. During this 3 days International Conference experts and researchers in the field will deliberates on the different spheres of the domain and will come out with future course of strategies.

A conference with the theme "Bioresources & Bioeconomy (ICBB-2025): Innovating for a Sustainable and Circular Future" aims to achieve significant outcomes that go beyond just presenting papers.

I. Knowledge Advancement & Dissemination:

- Presenting and discussing the latest breakthroughs in bioresource discovery, sustainable processing technologies, novel bio-based product development, and bioeconomy modeling.
- Highlighting successful implementations of bioeconomy principles from around the world, and particularly within India, demonstrating tangible positive impacts on sustainability, circularity, and economic growth.
- Pinpointing areas where more research is needed, fostering collaborative initiatives, and shaping future research agendas in bioresources and bioeconomy.
- Bringing to light the unique bioresource strengths of regions like Northeast India (including Nagaland) and exploring how they can contribute to the national bioeconomy.

II. Collaboration & Networking:

- Facilitating direct interactions between researchers, industry leaders, policymakers, and startups to translate scientific discoveries into market-ready products and sustainable solutions.
- Fostering interdisciplinary and inter-institutional partnerships, both national and international, to tackle complex challenges in the bioeconomy.
- Providing a platform for emerging bioeconomy start-ups to showcase their innovations, attract investment, and receive mentorship.
- Engaging policymakers to discuss current bioeconomy policies, identify barriers, and formulate actionable recommendations for creating a more supportive regulatory and investment environment for a circular bioeconomy in India.
- **III. Capacity Building & Human Resource Development:**
- Offering workshops or specialized sessions that train young researchers and students in advanced techniques (e.g., omics, bioinformatics, and bioprocess optimization) relevant to bioeconomy.

• Motivating students and young professionals to pursue careers in bioeconomy-related fields, thereby building a skilled workforce for India's growing bio-based industries.

IV. Impact & Outcome-Oriented Achievements:

- Potentially contributing to a national or regional roadmap for accelerating the transition to a sustainable and circular bioeconomy, outlining key milestones, policy interventions, and investment priorities.
- Highlighting specific bio-based technologies or products that have the highest potential for immediate commercialization and significant impact on sustainability goals.
- Demonstrating how innovations in bioresources and bioeconomy directly contribute to achieving various SDGs, particularly those related to food security, clean energy, responsible consumption and production, climate action, and biodiversity.
- Raising public awareness about the importance of bioresources and the bioeconomy for a sustainable future, potentially influencing consumer choices and fostering a greener mindset.
- Showcasing the economic viability and sustainability potential of bio-based industries, thereby attracting national and international investment into India's bioeconomy sector.

Ultimately, the conference aims to serve as a catalyst, moving research from the lab to real-world applications, fostering an ecosystem of collaboration, and providing tangible inputs for policy and industry to drive India's transition towards a robust, sustainable, and circular bioeconomy.

Sub-Themes for Abstract and Paper Presentation

- 1. Sustainable Sourcing and Characterization of Bioresources
- 2. Bio-based Products, Bioenergy and Waste-to-Wealth Solutions
- 3. Sustainable Agriculture and Food Security
- 4. Biopharmaceuticals, Nutraceuticals, and Healthcare
- 5. Environmental Biotechnology and Bioremediation
- 6. Bio-Tourism and Bio-Entrepreneurship
- 7. Bioresources(Fauna & Flora) Conservation and Sustainable Utilization
- 8. Value Addition to Local Bioresources and Livelihood
- 9. Opportunities around Jhum Cultivation, Biodiversity and Intervention for Sustainability.
- 10. NGOs/SHGs/Social Entrepreneur/ Community Participation in indigenous Bioresource Management
- 11. Digitalization, AI, and Big Data in Bioeconomy
- 12. Policy, Regulations, and Economic Aspects of Bioeconomy
- 13. Any other.

Module of Conference Presentations

1. Conference Theme Keynote Address; 2. Plenary Lectures; 3. Invited Keynote Lectures for each Sub-theme; 4. Invited Lectures; 5. Contributory Research Papers (ORAL and POSTER); 6. Interactive Session of Delegates and Experts 7. Young Researchers Networking session 8. Models of Bioresoruce based products.

Call for Paper

Abstracts are invited on the conference theme and sub-themes from the interested researchers. Abstract within 300 words indication details of all the authors, presenting author, mode of presentation (ORAL/POSTER) may be submitted before the last date through online mode (Please refer the conference website (<u>https://icbb2025.nagalanduniversity.ac.in</u>) for Abstract submission). In case any technical problem/issue, the abstract may be emailed to <u>icbb2025@nagalanduniversity.ac.in</u>/<u>debchitta@nagalanduniversity.ac.in</u>.

Publication Option of Full Paper: Organizers are working on publishing the 'Conference Proceedings' with ISBN incorporating some selective papers. All papers will undergo blind Peer-Review process. Interested contributors may select the option in the registration form for his/her desire for publishing full paper. 'Instruction to Authors' will be mailed to those who are interested.

Contact Us

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Registration Fee: (Registration fee includes Welcome Dinner, Registration Kit, Breakfast, Lunch, Dinner, Tea/Coffee, and Snacks for the conference days). *For Registration, please visit Conference website* (<u>https://icbb2025.nagalanduniversity.ac.in</u>)

Registration Category	Registration Fee		
	(Participants need to pay the reg. fee along with abstract. If any participant		
x th	wishes to withdraw their reg. by 5 th September 2025 than 50% registration		
	fee will be refunded)		
International Delegates (Faculties/Scientists)	150 US\$ /12,000 INR		
International Students/Scholars	75 US\$ /6,000 INR		
Indian Delegates Faculties/Scientists etc.	6,000 INR		
Indian Scholars/ Students	3,500 INR		
PG/UG Students (Indian)	2000 INR		
Scholars/Students from Nagaland, University	2,500 INR		
Accompanying Person (International) (without registration	75 US\$ /6,000 INR		
kit)			
Accompanying Person (Indian) (without registration kit)	3,000 INR		

Industry/Company	40,000.00		
Platinum Sponsor (Full page color advt. inner side of the	50,000.00		
cover of souvenir)	The		
Gold Sponsor (Full page color advt. at the back page)	40,000.00		
	A GY		
Silver Sponsor (Half page color advertisement at the back	30,000.00		
page)			
Normal Sponsor (Only acknowledgement, no advt.)			

Note: No abstract will be published without registration fee. Registration fee non-refundable and there will be no spot registration.

Accommodation Charges: (Only against advance payment)

Category of Room	Tariff (INR/ US\$) (inclusive all charges) per day basis	
	Single	Double Sharing
Executive Deluxe	5000/80	3,500/50
Executive	4,200/65	3,200/40
Deluxe	3,500/55	2,500/ 35
Semi-Deluxe	2500/35	1500/ 25
Dormitory (with limited facilities) (Limited Seats)		800/15 per head

All Registration Fee and Accommodation Charges to be Paid Online.

Bank Account Details

Account Name: Department of Botany Nagaland University

Bank: State Bank of India

Branch: Lumami (NU) Branch, Nagaland, India

Account No. 44156991697; Account Type: Current Account

IFSC: SBIN0013380; MICR: 797002536; SWIFT CODE: SBININBB482

Important Dates

Abstract Submission (online): Till September 05, 2025; Acceptance Letter/Mail: by September 07, 2025.

Registration Form and Fee Deposit: Normal: August 15, 2025; with late fee: September 05, 2025.

Accommodation Requirement Request with Payment: August 30, 2025 (Minimum 2 days booking with advance payment non-refundable). Opportunity to contribute of Full Paper (Optional) for the Conference Proceedings in SCI/WOS indexed Journal (All submissions will be Peer Reviewed as per Journal Policy).