



**International Conference on ‘Bioresources & Bioeconomy’**  
**Organized by**  
**Department of Botany, Nagaland University, Lumami 798 627, Nagaland, India**  
**In Collaboration with**  
**Nagaland Forest Management Project, Department of Environment, Forest and Climate Change, Govt. Nagaland**  
**September 19-21, 2022**

**Conference webpage: <https://icbb-2022.nagalanduniversity.ac.in/>**

### **Organizing Committee**

**Chief Patron: Prof. Pardeshi Lal, Vice Chancellor, Nagaland University**

**Patron: Prof. M. S. Rawat, Dean, School of Sciences, Nagaland University**

**Convener cum Organizing Secretary: Prof. Chitta Ranjan Deb, Head, Department of Botany, Nagaland University**

**Co-Convener: Prof. Talijungla, Department of Botany, Nagaland University**

**Co-Organizing Secretary: (1) Dr. Neizo Puro, Department of Botany, Nagaland University**

**(2) Mr. Spongukshi, IFS, Chief Conservator of Forest, Govt. of Nagaland**

**Treasurer: Dr. M. Romeo Singh, Department of Botany, Nagaland University**

**Members: Dr. Limasenla, Department of Botany, Nagaland University; Dr. A. Paul, Department of Botany, Nagaland University**

### **Advisory Committee**

**1. Prof. Pramod Tandon, Former Vice Chancellor, North Eastern Hill University, Shillong, India**

**2. Prof. G. D. Sharma (Former Vice Chancellor, Nagaland University), Vice Chancellor, USTM, Meghalaya, India**

**3. Prof. K. Kannan, Former Vice Chancellor, Nagaland University, Nagaland, India**

**4. Prof. Bolin Kumar Konwar (Former Vice Chancellor, Nagaland University), Department of Molecular Biology and Biotechnology, Tezpur University. Tezpur, Assam, India**

5. Prof. S. R. Rao, North Eastern Hill University, Meghalaya, India.
6. Prof. Veena Tandon, Former Professor, Department of Zoology, North Eastern Hill University, Shillong, India
7. Prof. A. K. Pandey, Vice Chancellor, Mansarovar Global University, Bhopal, India
8. Prof. A. P. Das, Former Professor, North Bengal University, Siliguri, India.
9. Prof. Mohd. Musharof Hossain, Department of Botany, University of Chittagong, Bangladesh
10. Prof. Kanchit Thammasiri, Department of Plant Science, Faculty of Science, Mahidol University, Bangkok, Thailand

**About Department of Botany, Nagaland University:** Department of Botany was established on 6<sup>th</sup> September, 1997 and started functioning from September 19, 1997. Department offers Post Graduate and Doctoral Programme lead to Ph. D. Degree. Department is awarded with 'Centre for Biodiversity Studies', UGC-SAP (DRS-I, II and III) sponsored by the University Grants Commission, New Delhi, India, DST-FIST by the Department of Science & Technology, Govt. of India, Advance Level Institutional Biotech Hub by the Department of Biotechnology, New Delhi. Department is also in receipt of research grants from different funding agencies of government of India viz., CSIR, GBPIHED, DBT, DST, MoEF&CC and UGC. The Department is equipped with modern research facilities and completed over 35 major research projects funded by different funding agencies. Department is also maintaining Botanical Garden, Experimental Garden, Orchidarium etc.

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.

**Nagaland Forest Management Project (NFMP):** Nagaland Forest Management Project (NFMP), funded by the Japan International Co-operation Agency (JICA) and implemented by the Department of Environment, Forest and Climate Change, Government of Nagaland, India. Jhum practice (*Slash & Burn Cultivation*) in Nagaland, as in many other parts of the North-eastern Region of India, continues to play an important role in augmenting livelihoods and food security to the rural tribal population, while remaining as a way of life, culture and a

sophisticated system of forest management and agro-ecology that conserves biodiversity and support livelihoods. While there have been attempts and interventions to switch to newer methods of agriculture and forest management, the practice continues by evolving and adapting to changing market, climate and local developmental paradigms. As inter-sectoral insights and inter-disciplinary understandings around 'Jhum' as a food production system, livelihoods stratum and forest management paradigm grow and are contested, it is increasingly becoming imperative to engage with this nature-based solution through research and development pathways to build evidence and better inform policy and practice.

Drawing from this dynamism of practices and perceptions around shifting cultivation practices, NFMP agreed to join the Department of Botany, Nagaland University to be the 'Joint Organizer' of the ICBB-2022 and introduce the programme with dedicated two sessions to 'Promote inter-sectoral, inter-disciplinary and multi-level discussions around Jhum and Biodiversity'.

## About the Conference

Human health demands quality environment and environmental health depends on vast bio-resources which have direct impact on human-well being as well. India is a mega-biodiversity country and if the importances of our vast bio-resources are realized, this can be used for income generation (Bioeconomy). During 2020-2022 the spread of COVID-19 which claimed over 4.5 million lives globally highlighted the threats brought about by impact of human activities on climate change, deforestation, biodiversity loss and broader the gap of inequality and other global challenges. It also increased the financial imbalances globally along with unemployment, hunger, poor medical services especially developing and under developed countries.

The changes in the patterns of unsustainable production vs. consumption, improved belongingness accompanied by international cooperation are the need of the hour if we wish ensure route of sustainability. The bioresources and other natural resources can no longer be considered as indefinite due to degradation of different ecosystems. Hence, world need to reorient efforts towards the measures for mitigation and adaptation to the consequences of climate change which will be innovative, focused financial arrangements and improved technological cooperation involving governments, entrepreneurs, conservationists, researchers, indigenous peoples, local communities and academics.

In the recent years 'Bioeconomy' emerged as a leading paradigm for revitalization of global economic systems for sustainable use of bioresources which are renewable in a balanced way which can impact the global economy. Bioeconomy can establish linkage between biotechnology and economy and also between science, industry and society. The challenges and opportunities of bioeconomies are numerous, from resource-based commercial-scale manufacturing of products *viz.* biochemicals, foods, pharma and nutraceuticals, biopolymers, flavors, fragrances etc. for the production of new biomaterials and bioenergy in a sustainable and economic way for ever growing populations of the world. Success factors of bioeconomy of different countries vary widely ranging high-tech bioeconomies, basic bioeconomy to advanced

diversified bioeconomies. Despite the large variety of bioeconomies, several common elements are identified, which are simultaneously needed altogether (India BioEconomy Report, 2021).

According to IBER, 2021 India's Bioeconomy registered 12.3% growth during 2019-2020 and valued at \$70.2 Billion which contributes ~2.7% of national Gross Domestic Product and Bioeconomy's contribution to Indian GDP raised by 22% during the period. 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 \$150 billion Bioeconomy by 2025" (IBER, 2021).

Bioeconomy is 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. 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.

### **Sub-Themes for Abstract and Paper Presentation**

- 1. Plant Bioresources and Conservation**
- 2. Faunal Bioresources, Conservation and Sustainable Utilization**
- 3. Microbial Bioresources**
- 4. Plant-Microbes Interaction**
- 5. Food Processing**
- 6. Phyto-medicines and Nutraceuticals**
- 7. Local Bioresources and Rural Livelihood including Alternative Foods**
- 8. Ecosystems and Bioeconomy**
- 9. Scoping Research Gaps and Opportunities around Jhum Cultivation, Biodiversity and Intervention for Sustainability.**
- 10. Role of NGOs/SHGs/Social Entrepreneur/ Community Participation/IPR**
- 11. Value Addition to Local Bioresources and Livelihood**
- 12. Others**

### **Module of Conference Presentations**

- 1. Conference Theme Keynote Address;**
- 2. Invited Keynote Lectures for each Sub-theme;**
- 3. Invited Lectures;**
- 4. Contributory Research Papers (ORAL and POSTER);**
- 5. Interactive Session of Delegates and Experts**

## 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 for Abstract submission). In case any technical problem/issue, the abstract may be emailed to [icbb-2022@nagalanduniversity.ac.in](mailto:icbb-2022@nagalanduniversity.ac.in)

**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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2. Dr. Neizo Puro, Co-Organizing Secretary, ICBB-2022, Mobile: +91-8837490882

**Registration Fee:** (Registration fee includes Registration kit, breakfast, lunch, dinner, tea/coffee, and snacks for the conference days)

Registration Category	Registration Fee
International Delegates (Faculties/Scientists)	125 US\$ / 10,000 INR
International Students/Scholars	75 US\$ / 6,000 INR
Indian Delegates Faculties/Scientists etc. )	5,000 INR
Indian Scholars/ Students	3,500 INR
Scholars/Students from Nagaland University	2,500 INR
Accompanying Person (International) (without registration kit)	75 US\$ /6,000 INR
Accompanying Person (Indian) (without registration kit)	4,000 INR
Industry/Company	25,000 INR
Industry/Company with Advertisement in Souvenir/Stall	35,000 INR
Sponsorship of a Particular Segment	75,000 INR

**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\$) (including GST) per day basis	
	Single	Double Sharing
Executive Deluxe	4000 / 60	2500/ 35
Executive	3500 / 50	2200/ 30
Deluxe	3000 / 40	1800/ 25
Semi-Deluxe	2000/ 30	1200/ 20
Dormitory (with limited facilities)	-	600 per head

### All Registration Fee and Accommodation Charges to be Paid Online.

#### Bank Account Details

Account Name: **International Conference on Bioresource and Bioeconomy**

Bank: State Bank of India

Branch: Lumami (NU) Branch, Nagaland, India

Account No. **41056317962**; Account Type: Current Account

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

#### Important Dates

**Abstract Submission (online):** Till August 15, 2022

**Acceptance Letter/Mail:** August 17, 2022

**Registration Form and Fee Deposit:** August 20, 2022

**Accommodation Requirement Request with Payment:** August 20, 2022 (Minimum 2 days booking with advance payment).

**Submission of Full Paper (Optional) for the Conference Proceedings with ISBN:** August 30, 2022 (Instruction to authors for full Paper can be downloaded from the Conference website).

**Note:** Publication charge of 3000 INR/50 US\$ per paper will be charged extra.