

**DEPARTMENT OF SCIENCE AND TECHNOLOGY'S
CENTRE OF EXCELLENCE (COE)**

Title of the project: Climate Change Impacts and Adaptation for a Climate Resilient North East India

Name of Mission (NMSHE): National Mission for Sustaining the Himalayan Ecosystem (NMSHE) Department of Science and Technology (DST) (Climate Change programme), GoI.

Broad area of study: Assessment of Climate vulnerability and risk in the Indian Himalayan Region

Sub Area: i) Biodiversity and bioresources in different ecosystem
ii) Climate change impact and vulnerability assessment

Names of PI and Co-PIs, Address, Contact No.:

Principal Investigator	Dr. Ashalata Devi , Professor Address: Dept of Environmental Science, Tezpur University, Napaam-784028, Tezpur, Assam Contact No.: +91 03712 275608 (landline), +91 9435749354 (mobile)
Co-Principal Investigator (s)	Dr. Debendra Chandra Baruah , Professor Address: Dept. of Energy, Tezpur University, Napaam-784028, Tezpur, Assam Contact No.: +91 03712 273677 (landline), +91 9435508563 (mobile)
	Dr. Raza Rafiqul Hoque , Professor Address: Dept. of Environmental Science, Tezpur University, Napaam-784028, Tezpur, Assam Contact No.: +91 03712 275607(landline), +91 9854035935 (mobile)
	Dr. Apurba Kumar Das , Professor Address: Dept. of Environmental Science, Tezpur University, Napaam-784028, Tezpur, Assam Contact No.: +91 03712 275605(landline), +91 9435490582 (mobile)
	Dr. Nirmali Gogoi , Associate Professor Address: Dept. of Environmental Science, Tezpur University, Napaam-784028, Tezpur, Assam Contact No.: +91 03712 275609 (landline), +91 9435083469 (mobile)
	Dr. Sumi Handique , Assistant Professor Address: Dept. of Environmental Science, Tezpur University, Napaam-784028, Tezpur, Assam Contact No.: +91 03712 275611(landline), +91 9435188365 (mobile)
	Dr. Amit Prakash , Assistant Professor Address: Dept. of Environmental Science, Tezpur University, Napaam-784028, Tezpur, Assam Contact No.: +91 03712 275616(landline), +91 7992498305 (mobile)

Mentor: Prof. S. N. Ravindranath, IISC Bangalore, India

Sanction & budget details:

a.	Sanction Number	DST/CCP/CoE/182/2019/(C)
b.	Date of Sanction	26-3-2020
c.	Duration	5 years
d.	Total sanctioned cost of the project	Rs. 6,35,65,808
e.	Dates of Start and completion of the project	16 th June 2020 (Fund received) 15-3-2021 (Joining of Project staffs)

Details of project staff in position against sanctioned posts.

Sl. No.	Name	Designation	Date of joining/leaving	Email
1	Dr. Suhasini Hazarika	RA	15-03-2021(joining)	suhasini340@gmail.com
2	Dr. Anup Kumar Das	RA	19-03-2021 (joining) 01-08-2021 (leaving)	anuplily@gmail.com
3	Dr. Banashree Sarma	RA	03-05-2021 (joining) 28-02-2022 (leaving)	banashree07@gmail.com
4.	Dr. Shilpa Baidya	RA	01-11-2021 (joining)	Shilpabaidya16@gmail.com
5	Dr. Lina Gogoi	RA	15-06-2022 (joining)	lina.dbr@gmail.com
	Dr. Lina Gogoi	JRF	15-03-2021 (joining) 14-06-2022 (leaving)	lina.dbr@gmail.com
6	Ms. Premia Taifa	SRF	22-03-2021 (joining)	nangpremiataifa@gmail.com
7	Ms. Sweeta Sumant	SRF	23-03-2021 (joining)	swetathokhom11@gmail.com
8	Dipshikha Singha	JRF	12-05-2021 (joining) 06-10-2022 (leaving)	dipshikhasingha2@gmail.com
9	Parashmoni Borah	JRF	15-06-2021 (joining)	parashms.borah@gmail.com
10	Mr. K. Zamminson	JRF	30-06-2021 (joining) 25-07-2022 (leaving)	minsiongangte123@gmail.com
11	Manithoi Thingujam Singh	JRF	29.09.2022 (joining)	manithoithingujam@gmail.com
12	Nijara Baruah	JRF	29.09.2022 (joining) 31.05.2023 (leaving)	nijaratjgbaruah15@gmail.com
13	Bijay Thakur	JRF	19.05.2023 (joining)	bijaythakur3095@gmail.com
14	Mr. Anubhav Bhuyan	LA	15-03-2021 (joining)	anubhavbhuyan83@gmail.com
15	Mr. Nayan Jyoti Hazarika	LA	15-03-2021 (joining)	hazarikanayanjyoti12061995@gmail.com

Approved Objectives of the Project:

- i) Inventory of bioresources in different ecosystems to assess how they contribute to vulnerability of the ecosystems to climate change.
- ii) Study on spatio-temporal variation of environmental factors on characterization and utilization of bioresources
- iii) Assessment of climatic impact on different bioresources and identification of vulnerable habitats
- iv) Development of adaptation and resilience building strategies for the vulnerable ecosystems

Expected project outputs dovetailed into the overall development:

- The proposed work will provide comprehensive data on potential threats to the biodiversity of Northeast region of India.
- Assessment of the effectiveness of utilization of bioresources by different communities through traditional ecological knowledge in complementing the measures aimed at the amelioration of the impacts of changing climatic conditions and anthropogenic pressures will be ascertained.
- Ecological monitoring in permanent plots will help to establish the effects of climate change on phenology, nutrient dynamics, and prospects of the future fate of the forest ecosystem.
- Carbon is stored in plant biomass and captured and stored in soil. The study will greatly improve our understanding of vegetation responses to changes in environmental factors such as rainfall, temperature, soils, and land use and land cover changes.
- Further, the project would determine a foundation for future long-term ecological monitoring of many sites at different habitats across the state and region in general.

Expected deliverables:

- Generation of primary data on biodiversity and distribution maps of RET (Rare, Endangered and Threatened) species of flora and fauna found in different ecosystems.
- Harvesting and utilization patterns (economic assessment) of bioresources by local communities associated with their traditional ecological knowledge will be recognized.
- Species sensitive to climatic variability, especially rainfall (water stress) and temperature fluctuations will be identified.
- Quantification of carbon sequestered by forest and agroecosystem will help to address the rate of carbon sequestration at spatial and temporal scales in IHR of northeast India.
- Identification of vulnerable habitats.
- A tool to monitor anthropogenic impacts, including climate change, on bioresources and biodiversity conservation and management.
- Capacity building- Trained manpower to address scientific issues related to climate change, infrastructure development, informed community.
- Strengthening collaboration and coordination among the institutions in Northeast India to address critical issues of bioresources in the face of climate change.

- Scientific publication, policy paper, general articles.

Type of Programmes conducted: Workshop/Training/ Public Awareness/online courses

SI. No.	Type of Programmes	Theme of the training or topics of programmes	Date and Venue	Level of participation	No. of Participants		
					Male	Female	Total
1	Online Workshop	“Climate Change Impact on Agriculture and Biodiversity in North-East India”	1 st March to 5 th March 2022	Academicians, researchers, scientist and students	32	38	70
2	Outreach program	Women leadership in climate change adaptation using traditional knowledge	8 th March 2022 Amolapam Durga Mandap, Amolapan In association with Jeuti Mahila Samiti, Amolapam, Tezpur, Assam	Women of Amolapam, Tezpu	-	200	200
3	Capacity Building Programme	“Tools and Techniques for Conservation of Biodiversity”	21 st Oct. to 26 th Oct. 2022 Dept. of Environmental Science	Academicians, researchers and students	14	24	38
4	Training programme	“Climate impact modelling techniques”	19 th Dec. to 23 rd Dec.2022 Dept. of Environmental Science	Academicians, researchers and students	11	19	30
5	Awareness Programme	“ধেমালিৰ চলেৰে শিকোঁ আহা” on the occasion of International Day for Biological Diversity	22 nd May 2023 Shamdhara High School, Napaam, Tezpur	Students	47	53	100