

7. TARGET AND ACHIEVEMENT OF COMPLETED PROJECT

Project Name: Establishment of Advance Institutional Level Biotech Hub: Phase-II at Dhing College, Dhing, Nagaon, Assam

[Name of the PI/Project Coordinator: Dr. Manoj Kumar Saikia (PI) & Associate Professor Department of Botany, Dhing College [(Retired on 30/09/2023)]

Dr. Sanjeeb Kumar Nath (Co-PI), PI (In-Charge) & HOD, Department of Botany, Dhing College,
Dr. Ujjayanta Das (Co-PI) & Associate Professor Department of Zoology, Dhing College.

[Total Sanctioned Budget: Rs.57,84,720.00 Lakhs; Start of the project date: 01-02-2023;
Duration: 3 years]

➤ **Output Indicators:**

- **Project Status:** Single Institute
- **In case of Multi Institute:** academia-academia collaboration OR industry-academia collaboration): Nil
- **No. of workshop/symposia/brainstorming meeting/ trainings organized in financial year:** 10

➤ **Outcome Indicators:**

Year	1 st Year		2 nd Year		3 rd Year		Total	
Target (T)/ Achievements (A)	A	T	T	A	T	A	T	A
No. of manpower supported/ trained				287		141	428	
No. of female beneficiaries in the DBT funded project						20	20	
No. of publications						01	01	
No. of Patents filed/ granted/commercialized						01	Granted 01 Filed 01	
No. of products or technologies developed/ transferred/commercialized								
Others (Training/STC/ wprkshop/ OP)	3			4		3	10	
Patents				01		01(A/F)	02	

Sanjeeb Kr. Nath

[Signature & Stamp of PI/Project Coordinator]

Quarterly Deliverables

(If multi-centric, separate for each centre)

Proposed Milestone (Months)	Target Deliverables Specified in Proposal	Status & Actual Progress Realized
00 – 06 Months (Q1&Q2)	Identification of Sample site using GPS, Map preparation, specimen collection, preservation, and initial inoculation.	Completed. Field maps locked; Collection of lichen species from field stations (L1-L5) was started. Identification of species and processed into archival paper packets was done simultaneously. 29/37 species secured
07 – 12 Months (Q3 & Q4)	Mass culture of isolates, preliminary chemical colour tests, and bioactivity assays.	Collection of lichen species from field stations (L1-L5) continued. Identification of species and processed into archival paper packets was done simultaneously. Around 29/37 species secured were identified and their photo plates were prepared. Completed. The diversity index of lichen species was calculated using Simpson diversity index. Axenic cultures established. Oxidase/catalase profiles mapped. Initial organic solvent extractions finalized.
13 – 24 Months (Q4,Q5,Q6&Q8)	Extended antimicrobial testing, minimum inhibitory concentration (MIC) evaluations and dual-culture antagonistic assays.	Completed. Polarity-based bioassays compiled for plant pathogens. Antibacterial specificity confirmed.
25 – 36 Months (Q4,Q5,Q6&Q8)	Data consolidation, final confirmatory validation, statistical processing and manuscript generation.	In Progress / Nearing Completion. Statistical matrices are being structured. Final reports and high-resolution microphotographic prints are compiled for official submission to DBT.

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[Signature of PI/Project Coordinator with Stamp]

Coordinator & PI
Biotech Hub
Dhing College

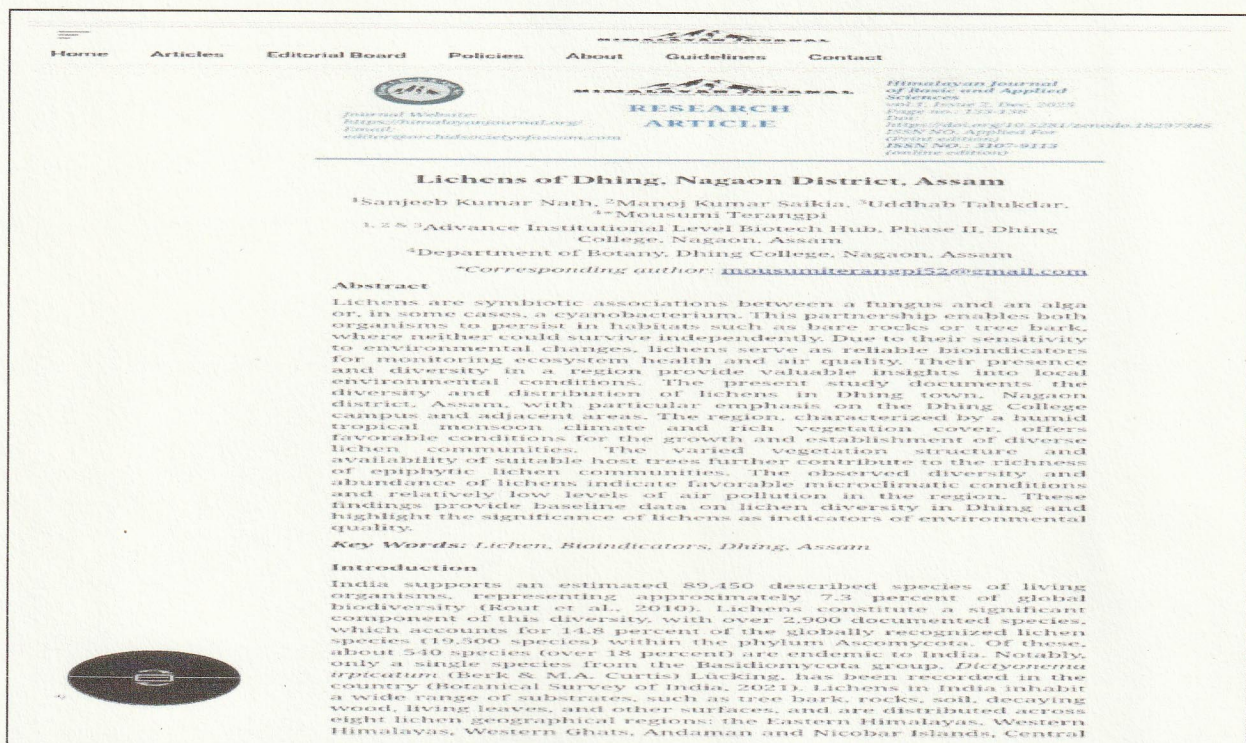
Details of Publications

(If multi-centric, combined details from all the centre)

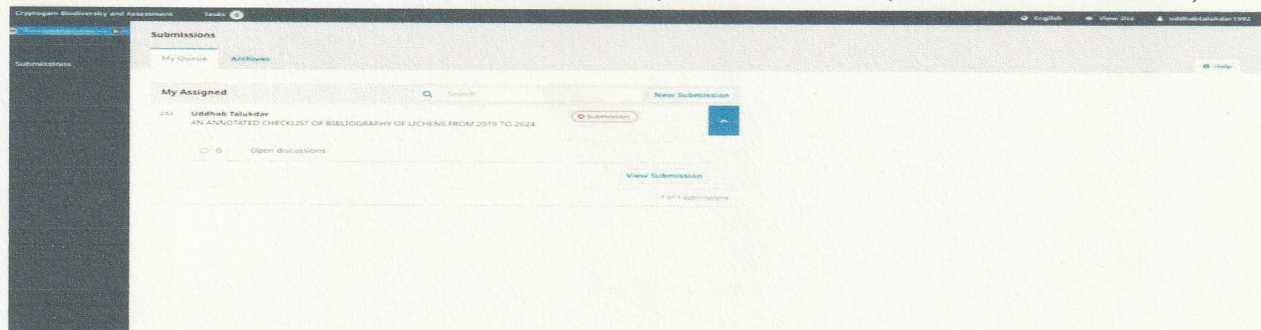
Total no. of publications (If multi-centric project, combined number from all the centre):

Details of the publications [APA Format: Authors name, (Year), article title, Journal name, Volume, page No. (SCI Impact Factor-)]:

- S,K,Nath,M,K,Saikia, U.talukdar, M.Terangpi 2025: Lichens of Dhing, Nagaon District, Assam Himalayan Journal of Basic and Applied Sciences (ISSN 3107-9113) Vol1, Issue 2 Page 133-138 (An open-access, peer-reviewed Journal)



1. Applied for Publication on Cryptogam Biodiversity and Assessment. (Receive letter is enclosed)



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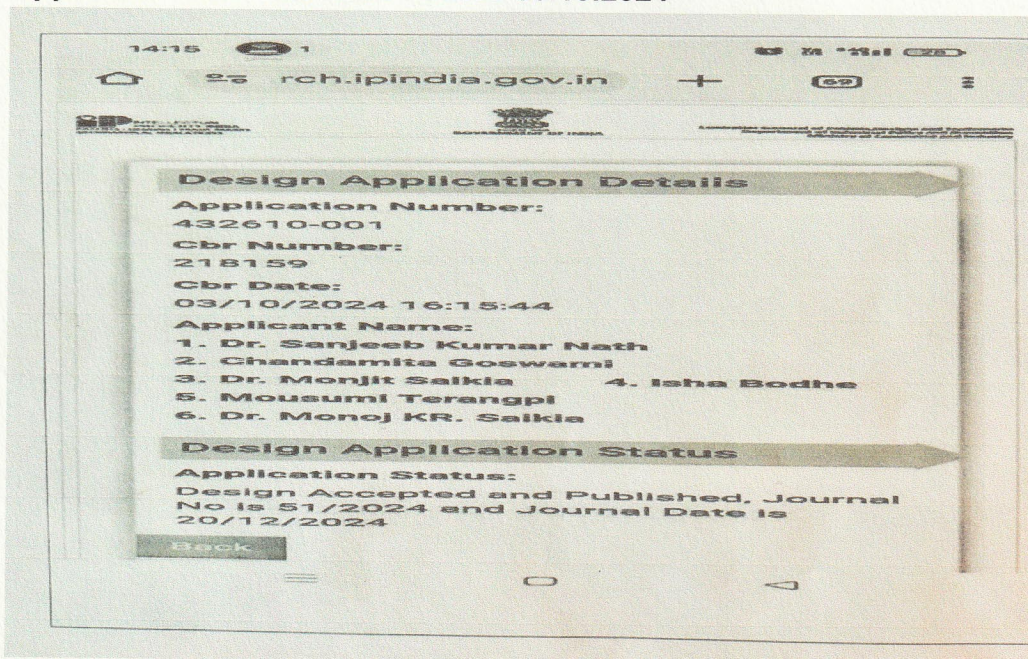
Details of Patents

(If multi-centric, combined details from all the centre)

- Total no. of Patents filed: 02
- Total no. of Patents granted: 01

Details of the Patents filed/Granted [Title, application No.]:

1. Title: GLASS CHAMBER FOR SURFACE STERILIZATION (Granted)
Application No. 432610-001 Dated 03.10.2024



Sanjeeb Kr. Nath
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Coordinator & PI
Biotech Hub
Dhing College

2. Patent applied: Portable Herbarium Preservation Chamber for Lichens

FORM 1

Application for Registration of Design

[See section 5 and 44]

You are requested to register the accompanying design in:

Sr.	Class	Sub Class	Articles
1	24-00-Medical and laboratory equipment	24-01-APPARTUS EQUIPMENT FOR DOCTORS, HOSPITALS AND LABORATORIES	PORTABLE HERBARIUM PRESERVATION CHAMBER FOR LICHENS

In the name of:

Sr.	Name	Nationality	Address
1	Dr. Sanjeeb Kumar Nath	India	Co-PI, Advanced Institutional Level Biotech Hub (Phase II) & Associate Professor & HOD, Department of Botany, Dhing College, Dhing, Nagaon, Assam 782123
2	Dr. Monoj Kumar Saikia	India	PI, Advanced Institutional Level Biotech Hub (Phase II) & Rtd Associate Professor Department of Botany, Dhing College, Dhing, Nagaon, Assam 782123
3	Chandamita Goswami	India	Project Associate, Advanced Institutional Level Biotech Hub (Phase II), Dhing College Dhing, Nagaon, Assam 782123
4	Uddhab Talukdar	India	Laboratory Assistant, Department: Advanced Institutional Level Biotech Hub (Phase II), Dhing College, Dhing, Nagaon, Assam 782123
5	Mousumi Terangpi	India	Assistant Professor, Department of Botany, Dhing College, Dhing, Nagaon, Assam 782123

who claim(s) to be the proprietor(s) thereof.

Four exactly similar representations of the design accompanying this request.

The design is to be applied to **PORTABLE HERBARIUM PRESERVATION CHAMBER FOR LICHENS**,

Details of Technologies Developed/ Transferred/Commercialized

(If multi-centric, combined details from all the centre)

- ☐ Total no. of technologies commercialized : Nil
- ☐ Total no. of technologies transferred : Nil
- ☐ Total no. of technologies developed : Nil

Details of the technologies developed/ transferred/commercialized (As per below format):

1. Nil
2. Nil

Sanjeeb Kr. Nath

[Signature of PI/Project Coordinator with Stamp]

Coordinator & PI
Biotech Hub
Dhing College