



# NERIWALM NEWSLETTER



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**North Eastern Regional Institute of Water and Land Management**  
**Department of Water Resources, River Development & Ganga Rejuvenation,**  
**Ministry of Jal Shakti, Government of India,**  
**Tezpur, Assam - 784 027.**



# TECHNOLOGY INITIATIVES

## IOT-BASED SMART IRRIGATION SYSTEM INSTALLED

NERIWALM has taken a significant step towards modernizing agricultural water management with the installation of IoT-based Smart Irrigation System at its Research Farm on April 2, 2025. This advanced system enables real-time monitoring of soil moisture and climate parameters, ensuring efficient use of water resources. Such smart technology will be demonstrated in institute's training programmes for adopting sustainable and precision farming practices .



## ACCREDITATION & QUALITY ENHANCEMENT

### SECOND NABL ASSESSMENT SUCCESSFULLY COMPLETED

The Soil and Water Testing Laboratory of NERIWALM successfully underwent its second NABL assessment on June 7–8, 2025.

This accomplishment marks another milestone in the institute's pursuit of laboratory excellence. It ensures that the testing services meet national and international quality benchmarks.





"Yoga is the journey of the self, through the self, to the self." – Bhagavad Gita

"Yoga is the pause button that humanity needs - to breathe, to balance, to become whole again." —Hon'ble Prime Minister Shri Narendra Modi

## EVENTS & CELEBRATIONS

### WORLD ENVIRONMENT DAY 2025

To observe World Environment Day on June 5, 2025, a pledge ceremony and plantation drive were organized within the NERIWALM campus.

Participants committed to minimize single used plastic and promote sustainable environment goals. The event echoed global calls to protect and preserve our natural surroundings for future generations.



### INTERNATIONAL DAY OF YOGA 2025

On June 21, 2025, NERIWALM celebrated the International Day of Yoga by organizing a guided yoga session at its campus under the theme '*Harmony between inner health and environmental consciousness.*'

The event shown active participation including Director, officials, students and supporting staffs, encouraging a sense of unity and well-being.





**“Sustainable development of water resources and efficient management of water is the key to water security and economic growth.” MEETINGS**

**-----Hon’ble President of India Smt. Droupadi Murmu**

## **IN-CAMPUS TRAINING PROGRAMMES**

### **APPLICATION OF QGIS IN WATER RESOURCES MANAGEMENT**

 **7-11 APRIL, 2025**



The training aimed to enhance technical skills in geospatial analysis for effective water resources planning and management. A total of 15 officers and staff from NERIWALM actively participated in the program. The sessions covered hands-on exercises on QGIS tools, spatial data handling, and map preparation. The training contributed to capacity building for integrating GIS technologies in water resource projects planning.

### **WATER LITERACY – A PERTINENT ISSUE**

The one-day training program on “Water Literacy – A Pertinent Issue” was conducted for UG and PG students of Darrang College. The session focused on raising awareness about water conservation, sustainable usage, and the role of youth in ensuring water security. A total of 31 students enthusiastically participated in the program, making it a fruitful exchange of ideas and a step forward in nurturing water conscious future leaders.

 **23 APRIL, 2025**



### **INDUCTION LEVEL TRAINING ON OVERVIEW OF WATER AND LAND MANAGEMENT AND SPRINGSHED MANAGEMENT**

 **28 APRIL - 2 MAY, 2025**



The 5 day training Course was conducted for the newly recruited officers of the Central Ground Water Board (CGWB). A total of 26 participants attended the program.

The training aimed to provide foundational knowledge and field exposure on integrated water and land resource management, with a special focus on water and land management and springshed management. The program also facilitated knowledge exchange and strengthened inter-institutional collaboration in the water sector.



**“Reusing more rain water and conserving more fresh water will go ahead to benefit our own ecosystem. Treating and recycling water will boost our economy as it can help to generate income as well”**

**—Hon'ble Prime Minister Shri Narendra Modi**

## **IN-CAMPUS TRAINING PROGRAMMES**

### **WORKSHOP ON “LIVELIHOOD PROBLEMS AND PROBABLE LASTING SOLUTIONS FOR DISPLACED PEOPLE DUE TO BANK EROSION IN THE BRAHMAPUTRA VALLEY**

 **27 MAY, 2025**

The workshop brought together 25 participants, including officers from WRD, Revenue Department, NEHARI, TISS Guwahati, RFRI, as well as representatives from PRIs and farmers. The program focused on understanding the challenges faced by displaced communities and explored sustainable, community-driven solutions. It aimed to promote collaboration among stakeholders to develop effective strategies for livelihood restoration and long-term resilience.



### **TRAINING ON HYDROLOGICAL MODELLING**

 **28-30 MAY, 2025**

The 3 day training was attended by 7 officers from various State and Central Government departments of Arunachal Pradesh, Meghalaya, and Assam. The program featured in-depth classroom deliberations and hands-on sessions, equipping participants with both theoretical understanding and practical skills in hydrological modelling techniques. It aimed to strengthen technical capacities for effective water resource planning and management in the region.





# INPLANT TRAINING PROGRAMMES

## MICRO IRRIGATION, DESIGN, INSTALLATION AND MANAGEMENT

- The first batch, held from 3rd to 6th June 2025, was a self-financed program attended by 11 B.E./B.Tech students from NERIST, Arunachal Pradesh.
- The second batch, conducted from 30th June to 4th July 2025, included 18 B.E./B.Tech students from Assam University and Nagaland University.

The programs aimed to provide students with comprehensive practical exposure to micro irrigation systems, covering key aspects such as system design, field installation, and efficient management practices. The training combined classroom sessions with hands-on field demonstrations, enhancing the participants' technical skills and understanding of sustainable irrigation solutions.



## REMOTE SENSING AND GIS APPLICATION IN IRRIGATION, LAND AND WATER MANAGEMENT

 9-13 JUNE, 2025

The training was attended by 16 B.E./B.Tech students of NERIST, Arunachal Pradesh. The program focused on introducing geospatial technologies and their practical applications in the fields of irrigation planning, land use assessment, and water resource management. Through a combination of theoretical sessions and hands-on exercises, participants gained valuable insights into the integration of Remote Sensing and GIS tools for sustainable resource development.





# INPLANT TRAINING PROGRAMMES

## SURVEY AND DESIGN OF IRRIGATION PROJECT & SOCIO-ECONOMIC ASPECTS

 16-20 JUNE, 2025

The training was attended by 16 B.E./B.Tech students of NERIST, Arunachal Pradesh. The training aimed to equip students with practical knowledge on the planning, survey, and design of irrigation projects, along with an understanding of the socio-economic factors influencing project implementation. The program included both theoretical sessions and field-based learning to provide a holistic understanding of irrigation project development.



## MEASUREMENT OF IRRIGATION WATER AND DESIGN OF STRUCTURES

 23 JUNE-2 JULY, 2025

The training was attended by B.E./B.Tech students of NERIST, Assam University, and Nagaland University. A total of 29 students participated in the training.

The programme aimed to provide technical knowledge and hands-on experience in accurately measuring irrigation water and designing related hydraulic structures. Through a blend of theoretical sessions and practical demonstrations, students gained valuable insights into efficient irrigation management and structural planning.





“ Water conservation is the culture of our society and the centre of our social thinking”

—Hon’ble Prime Minister Narendra Modi

# INTERNSHIP TRAINING PROGRAMMES FOR M.SC STUDENTS OF TEZPUR UNIVERSITY



NERIWALM successfully conducted a series of internship training programmes for 18 Nos. M.Sc students of Tezpur University, aimed at enhancing their understanding and practical knowledge in the field of soil and water management.

- The first programme, on “Basics and Introduction to Soil and Water Chemistry”, was held from 16th to 20th June 2025. It focused on the fundamental concepts and laboratory practices related to soil and water chemistry.
- The second programme, on “Soil/Water Pollution, Impact on Society and Conservation Measures”, was conducted from 23rd to 27th June 2025. The sessions emphasized pollution sources, societal impacts, and practical conservation strategies.
- The third programme, on “Application of Remote Sensing and GIS in Soil and Water Management”, took place from 30th June to 4th July 2025. It provided hands-on training in geospatial tools and their application in sustainable resource management.





# OFF-CAMPUS TRAINING PROGRAMMES

## WATER QUALITY MONITORING FOR NGOS

20-21 MAY 2025

NAGALAND



The two-days training programme was organised for NGOs from Nagaland at the Water Resources Department, Government of Nagaland and included 52 participants. The training focused on enhancing the capacity of NGO representatives in water quality assessment. It included interactive classroom sessions and practical demonstrations on the analysis of key water quality parameters, equipping participants with essential skills for field-level water monitoring and management.

## IRRIGATION WATER MANAGEMENT

20-21 MAY 2025

NAGALAND

Two-days training programme was organised for officers nominated from various divisions of Water Resources Department, Government of Nagaland. The sessions were conducted at the office of the Executive Engineer, Water Resources Department, Government of Nagaland, with a total of 32 participants. The program aimed to enhance the technical knowledge and field-level application of efficient irrigation water management practices.



## STUDENT'S CORNER

26-30 MAY 2025

GUWAHATI



Four M.Tech (Water Resources Management) students from NERIWALM — Shri W. Mangal, Shri Sarfarz Wasy, Miss Dharitri Borah, and Miss Tanisha Talukdar — participated in a five-day training programme on ET-based Irrigation Performance Assessment Tools (EQIPA and EDIPA). The training was jointly organized by the Central Water Commission (CWC), National Institute of Hydrology (NIH), and the Assam State Irrigation Department from 26th to 30th May 2025 at the Chief Engineer Conference Hall, Irrigation Department, Guwahati.



- Shri Bikram Mandal, Research Associate (Agriculture) participated in a virtual training on ISO/IEC 17025:2017 – Risk Management Requirements & Implementation in Laboratories, organized by the TCB Division, NABET, Quality Council of India on 21st April 2025.
- Dr. Luna Moni Das, Assistant Professor (S. Sc) attended and delivered a special lecture on the occasion of Earth Day at Darrang College on 22nd April 2025.
- Dr. Luna Moni Das, Assistant Professor (S. Sc) & Dr. Prianka Paul, Assistant Professor (WRE), Dr. Prarthana Priyom Hazarika, Assistant Professor (Agri) participated in a one-week training program on 'Direct Training Skills' at ISTM, Delhi from 19th to 23rd May 2025.
- Dr. Luna Moni Das, Assistant Professor (S. Sc) & Dr. Prarthana Priyom Hazarika, Assistant Professor (Agri) participated in the training program 'Design of Training' at ISTM, Delhi from 26th to 30th May 2025.
- Shri Shuvajit Das, Laboratory Assistant (Engineering) participated in the training on ET-based Irrigation Performance Assessment Tools, EQIPA and EDIPA, conducted by the Central Water Commission in collaboration with NIH and Assam State Irrigation Department at the Chief Engineer Conference Hall, Irrigation Department, Guwahati from 26th to 30th May 2025.
- Shri Saurav Bhattacharjee, Research Associate (WRE) and Shri Bhaskar Jyoti Buragohain, Young Professional (S.Sc) participated in the training program 'Google Earth Engine for Glaciers and Water Resources (GEE-GWR)' held in hybrid mode from 2nd to 6th June 2025.
- Miss Rimpa Das, Research Associate (Agriculture) and Mrs. Nirmali Hazarika, Draughtsman participated in the Faculty Development Program at NWA, Pune from 16th to 20th June 2025.
- श्रीमती दीपाली मोहन, स्टेनोग्राफर ने "राज्यपाल शासन, गृह मंत्रालय के संकल्प 50 वें पूरे होने के उपलक्ष्य में 'राज्यपाल शासन स्वर्ण जयंती महोत्सव' 2025" के अंतर्गत दिनांक 25 जून 2025 को आयोजित "राज्यपाल नीति/कार्यक्रमों का समाज पर प्रभाव" विषयक प्रतियोगिता (विधेयक एवं अनुबंध नीति/कार्यक्रम) में प्रतिभागिता की। प्रतियोगिता में मौखिक प्रस्तुति हेतु चयनित हुई और माननीय मंत्री महोदय द्वारा प्रमाण पत्र एवं स्मृति चिह्न प्राप्त किया।



## PUBLICATIONS

- Debbarma, S., Tase, V., Buragohain, B. J., Hodam, S., & Bandyopadhyay, A. (2025). Flood risk mapping for Tlawng River Basin in Mizoram. SSRG International Journal of Civil Engineering, 12(4), 87–99. <https://doi.org/10.14445/23488352/IJCE-V12I4P109>
- Hodam, S., Srivastava, R., & Gupta, A. K. (2025). Nature-based solutions for drought mitigation. In N. A. Siddiqui, M. Moizuddin, A. K. Gupta, A. Ziauddin, & P. Mondal (Eds.), Advances in disaster management (Vol. 2, HSFEAS 2023) (Springer Transactions in Civil and Environmental Engineering). Springer. [https://doi.org/10.1007/978-981-96-4047-8\\_23](https://doi.org/10.1007/978-981-96-4047-8_23)



## DIRECTOR'S DESK

NERIWALM has successfully completed its all targeted activities in the last financial year. By and large, we have been successful in reaching out the different stake holders across all the states of NE Region. However, we need to work more to collaborate with the states like Mizoram and Sikkim so that we get more participation from these states. In the last quarter we have started two new projects i.e. 3<sup>rd</sup> party evaluation of HKKP (PMKSY) of Arunachal Pradesh and Comprehensive Sustainable Irrigation Plan for the State of Assam. I personally appreciate the faculty and technical personnel of the Institute for taking up the challenge for preparing the comprehensive irrigation plan for Assam which is going to be a land mark activity of the Institute.



## EDITORIAL BOARD

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**Dr. Uzzal Mani Hazarika, Associate Professor (WRE)**

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## ABOUT NERIWALM

The North Eastern Regional Institute of Water and Land Management (NERIWALM) is under the Department of Water Resources, River Development and Ganga Rejuvenation, Ministry of Jal Shakti, Govt. of India to provide capacity building, undertake research and provide technical services to the line departments in order to manage water and land for improving agricultural production and socio-economic status of the people in North East India.

The Institute caters to all the eight states of North Eastern Region of India namely Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. The technical expertise's of the Institute is also reach out to other part of the country and neighboring countries specially South East Asian countries.



**Director**

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