



REFLECTIONS

*The Quarterly In-House Newsletter of the
North Eastern Space Applications Centre*



Dr. SP Aggarwal
Director, NESAC

HIGHLIGHTS OF THIS ISSUE:

Meghalaya Geospatial
Health Resource
Information System-2

Successful Utilization of
Election - ATLAS in Lok
Sabha 2024 Elections-2

From the Director's Desk

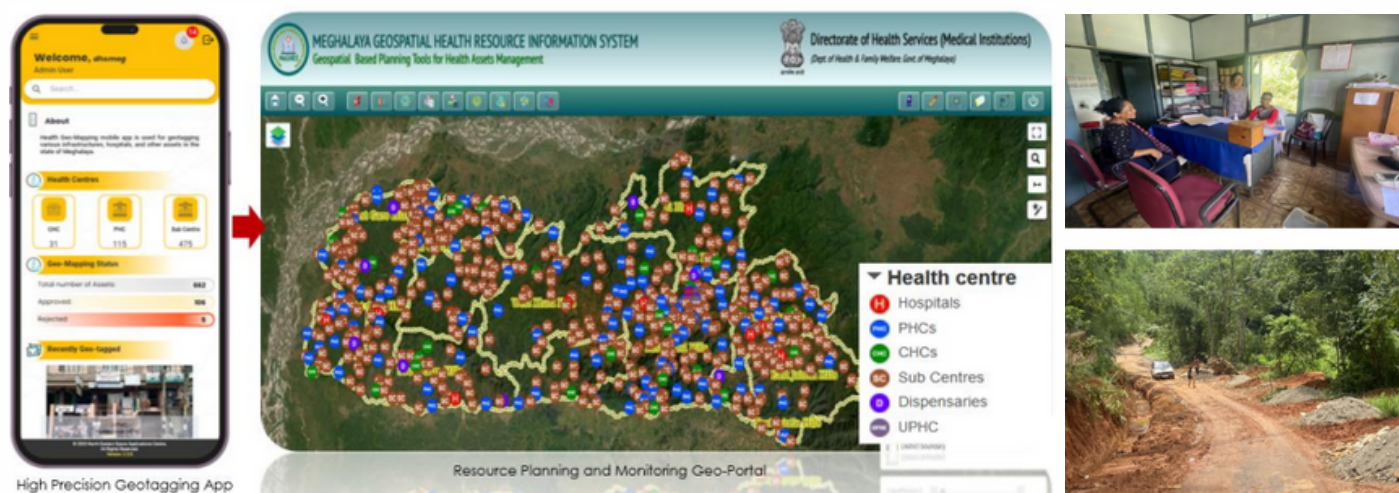
At NESAC, we have concluded yet another productive quarter characterized by a range of activities. One notable achievement during this period is the seamless execution of e-ATLAS, designed to enhance monitoring and tracking during the Lok Sabha 2024 Elections for selected states. This innovative platform effortlessly facilitated the reporting of alerts and incidents across 4892 polling stations in Sikkim, Mizoram, and Manipur. It efficiently tracked the movement of 6392 electoral officials and promptly resolved over 172 incidents, supporting the smooth conduct of the electoral process. This milestone proves the indispensable role of geospatial technology in ensuring the efficient monitoring and management of election related activities. Additionally, I am pleased to inform that we have completed a number of user oriented important projects. As a part of these projects, various workshops and training sessions have been conducted to disseminate project outcomes and take their feedback on the utility of the information provided under these projects.

The onset of the pre-monsoon and monsoon seasons each year brings significant concerns for the northeastern region (NER) due to the prevalence of severe weather events. However, we are fully committed to provide robust space-based support for disaster risk reduction in the region. We are also well-prepared to offer emergency aid for assessing post-disaster damage through space-based inputs and Unmanned Aerial Vehicles (UAVs) based data.

Meghalaya Geospatial Health Resource Information System

PS Singh, Nilay Nishant

The Meghalaya Geospatial Health Resource Information System has been developed to connect maps, applications, data, and people for holistic decision-making. This interconnected system should enhance overall healthcare planning and ensures a more effective response to the healthcare needs of diverse populations, fostering a more resilient and accessible healthcare infrastructure. This project has achieved significant milestones in enhancing healthcare infrastructure and management. Key accomplishments include the successful development and deployment of a High-Precision Mobile App for geotagging health assets. Additionally, an operational geospatial dashboard has been established for comprehensive health asset planning, management, and monitoring. Furthermore, unified decision support tools such as proximity analysts, health accessibility and gap analysis, and Route Finder with direction maps, service area computation, and assessment of health centers and manpower resources relative to population, as well as ambulance availability status, have also been developed.



Successful Utilization of Election – ATLAS in Lok Sabha 2024 Elections

PS Singh, Nilay Nishant, Siddartha Bhuyan, Abu Sahin

The Election –Advanced Tracking Location-based Alerts and Surveillance system, aptly named the e-ATLAS System, was effectively utilized by the offices of the Chief Electoral offices in Manipur, Sikkim and Mizoram during the Lok Sabha 2024 elections. The application was developed in collaboration with the respective State Remote Sensing Centres in NER. The e-ATLAS was designed to plan, monitor and track the electoral process and assets, both before and during polling days. It was developed and customized following the requirements outlined by the Office of Chief Electoral Offices. The system was deployed across 4,892 polling stations in these states to monitor alerts and incidents, as well as to track the movement of 6,322 election officials, including those transporting additional EVM and VVPAT machines. The system could successfully capture 172 critical alerts and incidents in real-time and helping them to be resolved within minutes.



NNRMS sponsored course on – Fundamentals of Remote Sensing and GIS



NESAC conducted a two-week NNRMS sponsored course on 'Fundamentals of Remote Sensing and GIS' using open-source software and python programming during Jan 22 to Feb 2, 2024. Director, NESAC chaired the Valedictory program of the course on 2nd Feb, 2014 and distributed certificates to the participants.

Two weeks short course on – Remote Sensing and GIS Applications in Geoscience



Two weeks short course on 'Remote Sensing and GIS Applications in Geoscience' was conducted by the Geoscience Division (GSD), NESAC from Jan 29 to Feb 9, 2024, at the NESAC Outreach Facility. A total of 14 participants from different parts of the country.

SOI in collaboration with NESAC conducts a training on Continuously Operating Reference Station (CORS) Network

Survey of India (SOI), Shillong in collaboration with NESAC has organized a workshop on the use of Continuously Operating Reference Station (CORS) data on Feb 2, 2024 at NESAC.



Since 2019, ISRO has been running a unique initiative known as "YUva Vlgyani KArayakram" (YUVIKA) aimed at nurturing young minds in the field of Space Technology, Science, and Applications. The upcoming fourth edition of this program, is scheduled from May 13-24, 2024. NESAC, one of the seven esteemed organizations selected for this prestigious event, is honored to host the program for the fourth consecutive time at its premises.



NESAC, in collaboration with the National Remote Sensing Centre (NRSC), ISRO, and the National Institute of Disaster Management (NIDM), MHA is jointly organizing a workshop on "Space Technology in Disaster Risk Management" at NESAC, Umiam during 27-28 May, 2024. The focus of the workshop is to discuss current technological developments in space technology that can be used to manage and mitigate the impact of natural disasters, with a special emphasis on the NE region.

The participation is by the invitation and nominations by the concerned central & state government organisations only

Capacity Building



Shri Neelesh Kumar Dwivedi and Shri Amiyo Kumar Rabha, Officer Surveyors from SOI, Shillong gave a detailed presentation on SOI CORS data access, downloading, and corrections services.

One-week short course for scientists and faculties of AAU, Jorhat



A custom-made one-week short course titled 'Space Technology for Agriculture' was organized during Feb 19 to 23, 2024, at the NESAC Outreach Facility, Umiam. The course included 17 participants from various institutions affiliated with Assam Agricultural University (AAU), Jorhat.

One Week Training Programme on – Basics of GIS & UAV RS



A custom-made one-week short course titled 'Basics of Geographic Information Systems and UAV Remote Sensing' for Army Officials of Umroi

Cantt was organized during March 4 to 8, 2024, at the NESAC Outreach Facility, Umiam. The course was attended by 13 officials of Indian army posted in Umroi Cantt.

5 days training course on – Applications of Remote Sensing and GIS in Disaster Risk Management



NESAC hosted a comprehensive 5-day short course titled 'Applications of Remote Sensing and GIS in Disaster Risk Management' for officials nominated by various state disaster management departments and National Disaster Management Authority (NDMA) from March 11 to 15, 2024, at the NESAC Outreach Facility. A total of nineteen participants from all over India attended the training course.

Two weeks course on – Space Technology Applications to Study Climate Change and it's Impacts



NESAC organized a two-week course on 'Space technology applications to study climate change and its impacts' during March 11 to 22, 2024. The course was designed for the early career professionals and research scholars intending to work in the areas of climate change and its impact. 15 participants from all over India attended the course.

NEWS & EVENTS

Member Secretary & CEO, Central Silk Board visits NESAC

Shri P. Sivakumar, IFS, Member Secretary & Chief Executive Officer (CEO), Central Silk Board (CSB), Ministry of Textiles, Govt. of India, Bengaluru visited NESAC on Feb 8, 2024. He was accompanied by Dr. Kartik Neog, Director, Muga Eri Silkworm Seed Organization (MESSO), CSB, Guwahati, Shri Nagesh, S., Assistant Secretary (Tech.), RO, CSB HQs and Shri R. Wankhar, Deputy Director of Sericulture, Govt. of Meghalaya. Shri P. Sivakumar has expressed his satisfaction over the supports provided by NESAC to the flagship programmes of CSB. He requested NESAC to continue the support in evaluation of the execution of the SILK Samagra-2 programme of CSB.



NESAC observes Swachhta Pakhwada 2024

Swachhta Pakhwada-2024 was observed at NESAC from Feb 2 to 15, 2024. The Pakhwada was inaugurated by Director NESAC on the first day of the Pakhwada. The pakhwada started with activities such as Pledge Signature campaign and mass cleaning drive. Various other cleaning activities were observed during the pakhwada such as plogging run, cleaning of nearby villages etc. Awareness campaign about Swachhta was also conducted involving school children and nearby villagers. This year, cleaning of water bodies such as lakes, rivers, rain water harvesting, ponds etc. were also included. Various competitions such as painting, quiz, elocution, selfie at swachhta banners were conducted involving staff and school children. A talk was arranged on solid waste management, which was delivered by Dr. Ganesh Chandra Dhal from NIT, Meghalaya. The valedictory program was attended by RJ Nicky from Radio Mirchi, Shillong.



Celebration of National Science Day 2024

NESAC celebrated National Science Day on Feb 28, 2024, organized under the aegis of Indian Society of Geomatics (ISG)-Shillong Chapter, Indian Society of Remote Sensing (ISRS)-Shillong Chapter and Indian Meteorological Society (IMS), Shillong Chapter at North Eastern Hill University (NEHU), Shillong.



Installation of 32 m Carbon flux tower at Nongkhylllem Reserve Forest, Ri Bhoi, Meghalayay 2024



A 32m carbon flux tower at Umtasor Range (T), Nongkhylllem Reserve Forest, Ri Bhoi, Meghalaya was inaugurated on March 11, 2024 by Dr. S P Aggarwal, Director, NESAC in the presence of Shri. G. Srinivasa Rao, Dy. Director, Earth & Climate Sciences Area (ECSA), NRSC, ISRO. Scientists from National Remote Sensing Centre (NRSC) and NESAC attended the program.

Consultants from Mott MacDonald Limited, UK Visited NESAC

Consultant representatives Mr. Bartholomeus, Flood Forecasting expert and Mr. Henrik Garsdal, Sr. Hydrologist from Mott MacDonald Limited, UK, visited NESAC on April 29, 2024. Dr. Diganta Barman, Head WRD, Shri Ranjit Das, Sci/Eng. 'SF' and Shri Shanbor Kurbah, Sci/Eng. 'SD' facilitated the meeting and discussion regarding the operational FLEWS project currently running at NESAC.





NESAC and IMS-Shillong Chapter organized World Meteorological Day 2024

NESAC and the Indian Meteorological Society (IMS)-Shillong Chapter, jointly celebrated the World Meteorological Day 2024. A popular talk on “At the Frontline of Climate Action: Issues and Challenges” was delivered by Dr. Arup Kumar Misra, Chairman of the Assam Pollution Control Board.

Visit of US Consulate General, India (Kolkata)

Ms. Pavak Melinda Marie, Consul General, U.S. Consulate visited NESAC on March 7, 2024. Director, NESAC welcomed her and made a presentation on the recent activities and achievements of NESAC. Ms. Pavak Melinda appreciated the diversity and quality of work being carried out by NESAC for societal benefit in the region. She has also mentioned the collaboration with NESAC in the future.



AGI Awards 2024 conferred to NeSDR for Excellence in Regional Collaborations



The North Eastern Spatial Data Repository (NeSDR) clinched the prestigious AGI India Awards 2024 for Excellence in Regional Collaborations. NeSDR is one of the unique and major applications developed by NESAC to facilitate a single-window unified platform for data exploration, analytics, and sharing. The project was sponsored by the North Eastern Council/Ministry of DoNER (MDoNER) and executed in collaboration with the State Remote Sensing Applications Centre (SRSACs) of NE states. At the India Geospatial Leadership Summit (IGLS 2024), held on Feb 20, 2024, Dr. SP Aggarwal, Director of NESAC, was honored with the award.



In addition to receiving the accolade, Dr. SP Aggarwal actively participated as a Panellist during the Technical Session on “Geospatial Applications Aiding National Programmes,” offering valuable insights and perspectives.

NEWS & EVENTS

Geospatia Excellence Award was conferred to NESAC

The Geospatia Excellence Award was conferred to NESAC for admiration and recognition of its outstanding contribution to the field of Geospatial Technology & its applications for the nation's development on March 15, 2024, at the Anthropological Survey of India in Kolkata. Additionally, he delivered keynote addresses on Panel-III Session, focusing on the National Geospatial & Space Policy and chaired the session. Dr. SP Aggarwal was also honored with the prestigious Prof. H.R. Betal Memorial Award in admiration and recognition of his outstanding contribution to the field of Geospatial Science & Governance.



ISRS Executive Council Election Results 2024-26

Dr. S. P. Aggarwal has been elected as president of the Indian Society of Remote Sensing for the duration of 2024-26. Additionally, Dr. Shyam S Kundu, Head of SASD at NESAC, has been elected as the Joint Secretary of the ISRS executive council for the same period.



Student's Visit



Students from William Carrey University visited NESAC on March 18, 2024



Students from Don Bosco University, Assam visited NESAC on March 20, 2024

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