



MIRSAC Newsletter

Mizoram Remote Sensing Application Centre
(An Autonomous Govt. Institution under Science & Technology, Planning Department, Govt. of Mizoram)

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Pu Lalnunmawia Chuaungo
Chairman
MIRSAC Gov. Body



Dr. C. Vanlalramsanga
Vice Chairman
MIRSAC Gov. Body

Governing Body of MIRSAC

Chairman : Chief Secretary
Govt. of Mizoram

Vice Chairman : Secretary
Planning & Prog.
Implementation Dept.
Govt. of Mizoram

Member Secretary : Chief Scientific Officer
Dte. Science & Technology

Members : 16 members from various
Depts. of the State, viz.,
Planning & Prog.
Implementation, Finance,
Environment Forest &
Climate Change, PWD,
PHED, P&E, DM&R, Irrigation
& Water Resources, UD&PA,
Agriculture (Crop Husbandry),
Horticulture, Rural Dev.,
Land Resources, Soil & Water
Conservation, Land Revenue &
Settlement, Geology & Mineral
Resources, & Sericulture.

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COVID-19 MONITORING & SUPPORT DASHBOARDS LAUNCHED BY HON'BLE CHIEF MINISTER OF MIZORAM

In the wake of COVID-19 pandemic reaching the state of Mizoram, the Centre with its motive to support the State Government, has designed and developed GIS based dashboards and decision support application to assist in the process of COVID-19 related decision-making and planning. The support extended by the Centre is mainly focused for concerned state departments involved in the current COVID-19 crisis management and administration.

The entire solution & support was developed under the ESRI's Disaster Response Program in which technical support and software was provided by ESRI, a renowned GIS software service and solutions company based in Redlands, California, US. The development process has resulted in the design of 4 (four) COVID-19 monitoring dashboards and a GIS web-based decision support application that provides quick visual metrics & analytics. All of these solutions are collectively hosted on a dedicated Geo-portal which can be accessed from the Centre's official site - www.mirsac.mizoram.gov.in



The Geo-portal/Hub-site (Dashboards & application) was launched by Pu Zoramthanga, Hon'ble Chief Minister of Mizoram on 9th June, 2020 at Chief Minister's Conference room, Aizawl. A brief live demo of the dashboards (COVID-19 Status monitoring, Quarantine facilities monitoring, Critical Facilities support & Health facilities monitoring) and Decision support Web application was presented by Pu Robert Lalchhanhima Sailo, Senior Scientist prior to the launch, highlighting the interactive functions of each and scope for its live implementation in COVID-19 situational awareness scenario. The programme was attended by important Government officials, representatives of Science NGOs, MISTIC Governing body members and media personels.



Interactive COVID-19 Dashboards for Mizoram



From Editor's desk



As speculations and hope for a better year ahead were all in line, 2020 ushered in what was mostly feared and dreaded. Phases of unforeseen events; that in its most likelihood could disrupt the very fabric of a progressively developing society, was what we were faced with. Yet in these looming phases of chaos and fear, GIS technology in its innate and innovative form has again proven a stronghold by providing valuable services and assistance to the communities in need and Government. As professionals in this field, it is our sole responsibility to render all possible aspect of services and solutions to curb the impending need for strategic decision making and implementation through the power of mapping and geographic analysis. Recent interventions made at local levels has made society and government spatially aware and provoked a sense of importance of spatial patterns and its impact for recovery strategies. The technology will continue to support this and a wide variety of other applications & analytics in other spectrum of solution services as well. Eventually, going beyond to fundamentally advance how we deal with problems in the future.

NeSDR Training for Mizoram Node



The Geo-portal designed for the Mizoram state node has undergone its testing phases and in this connection four Scientists of MIRSAC were given hands-on training for basic management of the geo-portal by M/S ScanPoint Geomatics Ltd. on 31st January, 2020 at MIRSAC. The NeSDR project workflow for Mizoram node has completed initial stages of data standardization, GIS layer updations, server node installation, networking linkages and design of state Geo-portal. The official launch of the portal is still awaited from the co-ordinating agency - NESAC, Dept. of Space.

CONSULTATIVE MEETING ON RECENT NATURAL DISASTERS IN MIZORAM

Recent natural disasters (landslides & earthquakes) in the state had triggered uneasiness and panic among the masses. A series of seismic events of varying magnitude occurred having its epicenter on the eastern part of Mizoram followed by series of foreshocks for a span of almost six days. The highest recorded earthquake being 5.5 Magnitude occurring 27km SSW of Champhai town on 22nd June, 2020 around 04:10:52 IST as per data from National Center for Seismology. In the context of these natural disasters, the State Government had initiated preparedness and measures to mitigate a catastrophic disaster that might result from these recent cases in the state. Concurrent to these events, there has also been reports of massive landslides occurring in and around the city which had caused damage to property, road infrastructures and even claimed human casualties.

As a step in this direction is the need of the hour, a consultative meeting to address these issues was convened by the Chief Secretary, Govt. of Mizoram on 24th June, 2020 to discuss on matters concerned with recent landslide incidents in Aizawl, building regulations and mitigation measures at hand, with concerned urban authorities/departments & Aizawl Municipality Corporation. Scientists from the Centre were invited to present recent project findings related to Landslide hazard zones in the state. The presentation was given by Pu ZD Laltanpuia, Senior Scientist on the related topic and additionally focusing on the hazard zones within urban conglomerates, particular within Aizawl city. Further discussions followed with a consensus to prepare a concise hazard zone map generated from present data available at MIRSAC and referenced with relevant data collected from Aizawl Municipality Corporation and Directorate of Geology & Mineral Resources.

Following this and in connection with recent seismic events in the eastern parts of the State, another natural disaster related meeting to discuss issues and preparedness levels for earthquake, in particular, was convened by the Hon'ble Chief Minister of Mizoram on 26th June, 2020 at the Chief Minister's Conference room, Aizawl. The Chief Minister addressed the meeting stating that during a short span of time a series of earthquake had occurred which caused panic to the residents in the nearby epicenter areas. The Chief Minister also stated that there were no reported human casualties and that the supply of essential commodities was not disturbed. Further, he expressed his deep gratitude towards the MLA of the respective constituency, Directorate Geology & Mineral Resources and MZU team for their quick response to assess the





situation affected by the earthquakes. The meeting was attended by State Ministers - Dr. R. Lalthangliana (Minister, Health & Family Welfare, etc), Pu Lalchamliana (Minister, GM&R, Home, etc), Pu K. Lalrinliana (Minister, FCS&CA, etc), Pu Ramthanmawia (MLA, East Tuipui), Chief Secretary, DIG & Secretaries along with representatives from concerned departments.

Scientists from the Centre- Pu ZD Laltanpuia, Senior Scientist and Pu R. Lalfamkima, Scientist were invited to present recent developments/findings made in this aspect that could support decision making and mitigation measures towards disaster risk reduction and allied planning processes. Presentations on project study findings and tools developed were demonstrated by the Scientists, mainly from the recently completed Hazard Risk & Vulnerability Analysis project and recently launched COVID-19 support tools and applications. The presentation on "Earthquake Hazard mapping in Mizoram" given by Pu ZD Laltanpuia, additionally focused on earthquake hazard zones in different parts of Mizoram with emphasis on zones in and around Aizawl city. It was also further discussed about the importance of having a seismological center within the State - in view of the frequency of earthquake in the region. The presentation given by Pu R. Lalfamkima demonstrated how the recently developed COVID-19 dashboards and web based GIS applications could be simultaneously used in the event of future disaster as well.



Presentation & Online Demonstration by MIRSAC Scientists



ON-GOING PROJECTS

1. Monitoring of IWMP activities using Geospatial tools

Summary Report for Champhai and Kolasib district is completed and submitted. Remaining districts will undergo change mapping and summary report preparation.

2. CHAMAN Project - Site Suitability study for Dragon fruit in Aizawl & Serchhip District

Ground data collection, site suitability validation and project report for the two districts is completed. The final project reports for the two districts was submitted to NESAC & MNCFC.

3. North East Spatial Data Repository (NeSDR)

The State level server node has been installed and is now functional. State level data feed and its repository is also configured for use through portal based access. Hands-on training for administering state node geo-portal is also completed.

4. Fostering Climate resilient Upland farming System (FOCUS) project

Atlas compilation for Mamit and Serchhip districts is completed and submitted to SCRAM (FOCUS-Miozram). Additionally, village-wise land use maps were also prepared for all the project districts and handed to the agency too.

5. National Wetland Inventory & Assessment (NWIA) project - Mizoram

Ground data collection and post field corrections has been completed. A second stage interpretation using LISS-IV imagery will commence for mapping of wetlands for which satellite data and training is awaited.

6. Use of Geo-Informatics in Rural Road Projects under PMGSY Project : Preliminary interpretation of PMGSY roads and ground verifications has been completed. Additional data entry suggested by NRSC is being done.

7. Geo-tagging of assets created under NERTPS programme : The project is a joint venture with NESAC, Dept. of Space and Central Silk Board, Ministry of Textiles, Gol to monitor and create an inventory of sericulture related infrastructures and plantations in the state using GIS technology - Geotagging of sites in particular. Field work is yet to be executed.

8. Space base Information Support for Decentralized Planning (SIS-DP)-Update : The project is a continuation of the first phase of SIS-DP and will be execute with main focus on updation of data created during the first phase.

Obituary

Our dear colleague, Mr. Vanlaldina - age 26 yrs, who passed away on 6th June 2020 will be dearly missed by the MIRSAC fraternity. The news of his death came as a shock to all of us and is indeed very untimely when so much is yet to be achieved. Madina (as he is called by us) was a calm, collected and friendly employee of MIRSAC, with multivariate music skills. We have lost a dear friend, a keystone in the cartographic unit of MIRSAC and a valuable standpoint in co-circular activities of the centre. We will miss him sorely.

Born and brought up in Aizawl, Mizoram, he joined MIRSAC in 2015 as Cartographer and was serving in this post till his last breath. He is survived by his parents and two elder brothers.





NEWS & ACTIVITIES

MIRSAC AT A GLANCE

* *Pu H.Lalhmachhuana, Scientist was detailed for ground data collection within Lunglei, Lawngtlai & Siaha districts under the National Wetland Inventory Assessment Project from 9^h - 16th January, 2020.*

* *Pi Rosy Vanlalzarzovi, Scientist was detailed for ground data collection within Champhai district under the Rural roads monitoring (PMGSY) project from 22nd - 25th January, 2020.*

* *Pu Robert Lalchhanhima Sailo, Senior Scientist attended the EQC meeting for CHAMAN (Phase-II) Project at NESAC, Umiam from 28th - 31st January, 2020.*

* *A Hands-on training programme for NeSDR Geo-Portal - Mizoram state node was organized on 31st January, 2020 at MIRSAC. Mr. Rahul Kumar, Project Co-ordinator, NeSDR, M/s ScanPoint Geomatics Ltd. imparted training to the Scientists of MIRSAC.*

* *Pu H.Lalhmachhuana, Scientist was detailed for project work under NWIA Project at Space Application Centre, Ahmedabad from 17th - 21st February, 2020.*

* *Walk-in-interview for Project Assistants under Geo-tagging of Sericulture assets Project was conducted at Science & Technology Conference room on 2nd March, 2020.*

* *Pi Rosy Vanlalzarzovi, Scientist was detailed for ground data collection within Mamit, Serchhip & Kolasib districts under the Rural roads monitoring (PMGSY) project during March, 2020.*

* *Pi Hmingthanpuii, Principal Scientist and Pu Robert Lalchhanhima Sailo, Sr.Scientist attended the Online Review Meeting of CHAMAN (Phase-II) Project organized by MNCFC, New Delhi & NESAC, Dept of Space on 29th April, 2020.*

* *Pu Vanlalnghaka, Scientist and Pu C.Lalzawngliana, FA were detailed for ground data collection within Lawngtlai, Lunglei & Siaha districts under the Rural roads monitoring (PMGSY) project from 25th - 29th May, 2020.*

* *Pi Rosy Vanlalzarzovi, Scientist was detailed for ground data collection within Aizawl district under the Rural roads monitoring (PMGSY) project from 1st - 2nd June, 2020.*

* *GIS-based COVID-19 monitoring dashboards and Geo-portal to support the Govt. of Mizoram prepared by the Centre was launched by Pu Zoramthanga, Hon'ble Chief Minister of Mizoram on 9th June, 2020 at the Chief Minister's Conference room.*

* *A meeting to demonstrate functionalities of COVID-19 dashboard & Geo-portal was conducted for concerned line departments of the state on 10th June, 2020 at Chief Secretary's Conference room. The meeting was chaired by the Chief Secretary, Govt. of Mizoram.*

* *The Governing Body Meeting of MIRSAC was convened on 23rd June, 2020 at Chief Secretary's Conference room. All governing body members were present at the meeting which was chaired by the Chief Secretary, Govt. of Mizoram.*



Site Validation for Dragon fruit @ E. Phaileng - CHAMAN (Phase-II)



Online Demo of COVID-19 dashboards @ CM Conference room



Data collection under Rural roads monitoring (PMGSY) project



Governing Body Meeting - MIRSAC @ CS Conference room