



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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HAZARD ZONATION WITHIN AIZAWL CITY (Towards safer & resilient infrastructure development)

In the light of the disastrous incidents within Aizawl city during monsoon season, a meeting spearheaded by the Chief Secretary was convened on 24th June, 2020 to glance through risk-zoning activities undertaken by various departments/stakeholders, and to look for ways to streamline and collate such hazard risk zones. The meeting had decided to form an action committee under the guidance of Secretary, UD&PA Dept. & constituting of Aizawl Municipal Corporation (AMC), MIRSAC and Geology & Mineral Resources (G&MR) Dept. to look into the zonings and come up with final zoning plans.

The committee upon deliberations resolved to conduct an in-depth ground survey constituting a team of officials/scientists from G&MR and MIRSAC. In this context, six very high risk zones were identified for intensive study & survey, i.e, Hunthar, Bawngkawn, Ramthar- Sihpui, Zuangtui-Muana veng, Ramhlun Sports Complex and Hlimen. Consequently, AMC and LR&S Dept. were also detailed to assist the team to accurately demarcate areal extent of these zones by using DGPS instrument.



Detailed geological survey was conducted with the aid of images taken from UAV and analysis of the imagery performed using GIS software. Field records for structural orientation of bed (dips & strike) was done. Detailed studies of past landslides and assessment for possible triggering factors for future risk of landslides in the identified areas was also carried out. In every site a minimum of ten DGPS ground control points were recorded to have more precise and accurate horizontal & vertical location for the study. The team demarcated potential high risk sites where pillars were to be erected to delineate the boundary of the risk zones.

A meeting held to discuss the report on ground survey conducted at the selected Very high Hazard Risk zones within Aizawl city was held on 2nd November, 2020 under the chairmanship of the Chief Secretary, Govt. of Mizoram. A presentation on the report was given by Pu Malsawmdawngliana, Scientist, MIRSAC which was followed by discussions. The report findings emphasized on the need to declare the surveyed sites as very high risk zones and marked as "No Development Zones". It was also further suggested that asset mapping be undertaken after ground demarcation of the zones which may be executed by Aizawl DDMA assisted by the Ground survey team.





From Editor's desk

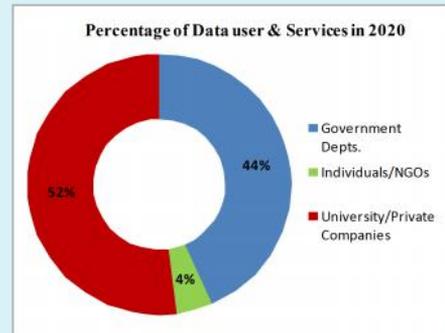
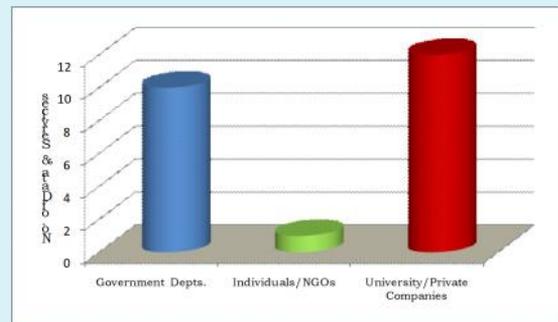


2020 - what a year to remember, atleast in the light of how technology has changed almost every nook and corner of society and the Government. The world would have been paralyzed if it was not for the technological innovations that came in to the rescue for supporting basic needs of the common man. Generations- young and old had to succumb to the COVID-19 pandemic which disrupted our very freedom and to a great extent our values to life. Yet, as humans, we have learnt to be resilient and carry on with what we had in hand- our technology support systems. This was where we drew the line between a civilized-well-equipped world and an era which fell apart.

It was also indeed a realization moment for the technological capabilities of Geospatial services. From basic location based data to in-depth spatial analytics that assisted in the combat against the crippling grip of the pandemic. The power of where, why, what & when is here to stay and will do so as long as it is needed.

In our efforts to bring better and reliable services towards robust disaster management in the future, there will be continous strides of upgrading geospatial tools, knowledge and applications wherever it is required.

Summary of User Data & Services



A rough analysis of user data & services provided by the centre during 2020.

FOCUS PROJECT TRAINING FOR USE OF GIS DATA

The FOCUS (Fostering Climate Resilient Upland Farming System in the Northeast) - Mizoram Project coordinated and funded by SCRAM (Society for Climate Resilient Agriculture in Mizoram) & IFAD (United Nations - International Fund for Agriculture Development) had given the task of carrying out land use mapping and crop site suitability analysis to the Centre. The role of the Centre in preparation of base layers, land use maps and suitability studies was initiated from November 2018 with key importance given to the pragmatic use of GIS data for realizing the objectives laid out by the FOCUS project. The last phase of FOCUS project culminated with capacity building of the FOCUS project staff and field technicians on use of the various GIS data generated for the project. This involved all the base layers as well as data & map based decision-making for site suitability selection of identified crops.

The training for FOCUS staff was conducted in all the four districts covered in the project - Kolasib, Serchhip, Mamit & Champhai. To start off this phase of capacity building, Project staff and technical personnel from the Main FOCUS Office in Aizawl were given training on how to use the GIS data generated in the project as well as directions for further value addition in their perspective action plans. Presentations on Land use mapping and Crop suitability analysis which were the core objectives of the project was given by Pu Robert Lachhanhima Sailo, Senior Scientist & Pi Vanlalmuansangi, Scientist. Demonstration of using Mobile based application for data visualization and data collection was given by Pu R.Lalfamkima, Scientist. This was followed by hands-on exercises of using/capturing GIS data on smartphones which were distributed to all the trainees. Similar mode of training was conducted in the 4 project districts.



Pi Hmangaihzuai, Dy.Dir. (Horti.) receiving Smartphones on behalf of trainees from Member Secy, MIRSAC



Training programme for FOCUS Staff of Aizawl under chairmanship of Dr.R.K.Lallianthanga, CSO & Member Secy., MIRSAC



Hands-on demonstration for Smartphone data collection & GIS data visualization



Following the training programme in Aizawl, subsequent capacity building for FOCUS field staff in other districts were organized. Topics for the training followed similar context-specific presentation of land use mapping & crop suitability analysis as well as hands-on demonstration of mobile applications. The training for FOCUS field staff of Kolasib district was organized on 19th October, 2020 at Conference Hall, DAO Office, Kolasib and was convened & chaired by Pu J.Rothanga, DAO, Agriculture Dept., Kolasib district. A total of about 40 trainees along with a few invitees from district Agri-based agencies & media personnel attended the training programme. Training for Serchhip district staff was organized on 21st October, 2020 at Farmer's Training Hall, DAO Complex, Serchhip, and chaired by Pu C.Lalnithanga, DAO, Agriculture Dept., Serchhip. About 35 trainees & staff under FOCUS project attended the training programme. Training for Mamit district was conducted on 23rd October, 2020 at Chhim veng Hall, Mamit, convened by Pu Lalengzauva, DAO, Agriculture Dept., Mamit. A total of about 50 trainees under the FOCUS project attended the training. The district-wise training programme finally culminated with Champhai district where the programme was conducted on 19th November, 2020 at I&PR Conference hall, CHANEM building, Champhai. The programme was convened by Pu George Lalthangura, DAO, Agriculture Dept., Champhai and was chaired by Pi Maria C.T Zuali, Deputy Commissioner, Champhai district. The training had a total attendance of about 60 trainees including staff of FOCUS Champhai. The training was conducted in two shifts/batches adhering to the COVID-19 SOP that was required to follow. The training received positive feedbacks from the trainees and a more practical approach towards the use of GIS data was suggested which would facilitate better planning and implementation processes of agri-based schemes and projects.



Training at Kolasib



Training at Serchhip



Training at Mamit



Training at Champhai

ON-GOING PROJECTS

1. Monitoring of IWMP activities using Geospatial tools

Land use interpretation within identified watersheds of Champhai district is initiated following a revised methodology received from NESAC & NRSC. Results and findings from the district will serve as baseline framework for analysing subsequent watersheds in other districts of the state.

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

The second stage of interpretation of wetlands for some parts of the state has commenced. Remaining satellite imagery pertaining to LISS IV covering the entire state is awaited for continued mapping of wetlands.

3. Use of Geo-Informatics in Rural Road Projects under PMGSY Project

The requested corrections and data entry from NRSC is completed. The project has been finalized for completion from the Centre's perspective and entire data has been submitted to NRSC.

4. Geo-tagging of assets created under NERTPS programme

Field work relating to the geo-tagging of sericulture related infrastructures and development sites has been completed by field staff recruited under the project. Further necessary work for data compilation and inventory will be taken up by NESAC.

5. Space base Information Support for Decentralized Planning (SIS-DP)-Update

The project is initiated with base layer updations, land use / land cover interpretation and change mapping using satellite data of 2018. The work is being executed on a Block-wise basis within each of the 11 districts of Mizoram along with necessary base layer updation.



NEWS & ACTIVITIES

MIRSAC AT A GLANCE

*** UAV Based Reconnaissance survey of Landslide hazard zones in Aizawl city was executed on 18th July, 2020 at prominent and susceptible landslide areas within the city. Pu C.Vanlalengkima, Pu Lalramdina & Pu Malsawmdawngliana, Scientists were detailed to carry out on-site survey and UAV mapping of the landslide hazard zones.**



*** Training programme for use of GIS data under FOCUS Project was organized in 4 district headquarters - Kolasib (19th October), Serchhip (21st October), Mamit (23rd October) & Champhai (19th November). Pi Hmingthanpuii, Principal Scientist; Pu Robert Lalchhanhima Sailo, Senior Scientist; Pu R.Lalfamkima, Scientist; Pi Vanlalmuansangi, Scientist; and three Field Assistants - Pu Lalfakawma Royte, Pu C.Lalzawngliana & Pu David Vanlalfela Pachuau were detailed for conducting this training programme.**



*** Geotagging of NEC Projects in Mizoram - a collaborative project with NESAC. Location based tagging of ongoing projects using GPS enable smartphone was carried out in Aizawl, Kolasib, Mamit & Hnahthial districts during initial phase. Pu C.Vanlalengkima, Scientist & Pu David Vanlalfela Pachuau, FA were detailed for on-site data collection at these districts.**

