



MIRSAC Newsletter

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

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Pu Lalmalsawma
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.,
State Planning Board,
Finance Department,
Environment & Forest,
PWD, PHE, P&E,
Minor Irrigation,
Agriculture (Crop Husbandry),
Horticulture, Geology &
Mineral Resources,
Soil & Water Conservation,
Rural Development,
Land Revenue & Settlement,
DM&R, UD&PA, & Sericulture

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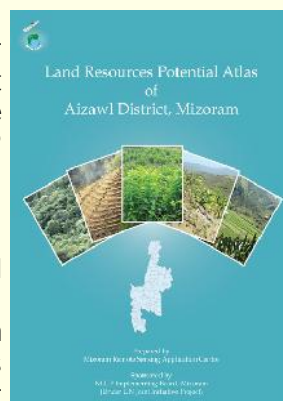
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LAND RESOURCES POTENTIAL MAPPING OF AIZAWL DISTRICT USING REMOTE SENSING & GIS (A Collaborative project with NLUP Implementing Board & UN Joint Initiative team)

A project for mapping the land resources and assessing potential areas for taking up sustainable forms of land development in Aizawl district has been taken up by the Centre under the collaborative efforts of NLUP Implementing Board, Govt. of Mizoram and funding of the UN Joint Initiative Project, UNO. As per MOU signed with the collaborating agency, the main project will cover both Aizawl & Lunglei district. The main focus and objectives of this project has been on preparation of spatial data pertaining to potential areas where land resources can be utilized for



development of various land based activities in Aizawl district. The norms set by NLUP for sustained utilization of land and water resources have also been referred to while execution of this project. The land development plans generated in a GIS environment has also been studied for its pragmatic application at operational level by conducting ground surveys and validation of the generated GIS plans in identified locations of the district. The generation of land development plan has taken into consideration various suitable and alternate activities that can be practiced in lieu of shifting cultivation, while still focusing on conservation of valuable and existing forest resources. This concept also adheres to the norms being set under the Government flagship programme of NLUP. The proposed activities/plan falls under different agricultural practices such as WRC, Agri-horti plantations, Agro-horticulture, Terrace cultivation & Pasture land. The analysis taken up in this project has shown that there is 1891.89 sqkm of land available in Aizawl district for taking up sustained form of land development activities. The data and results obtained from this project has been represented in the form of maps and statistics, prepared in a concise Atlas showing village-wise maps and statistics of land resources.



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From Editor's desk



Bringing in the concept of simplicity & accountability in the use of today's technological advances has been a key factor to bring in innovative ideas and use of technology in everyday life.

Pursuing for the widespread use of geospatial technology in public/private enterprises and local Government setups, agencies dealing with this technology has developed a number of new approaches towards simplifying the use and operations of spatial data for decision making and planning. The scope of its use could be endless depending on the analysis of data that the user puts in. The advent of geo-portals have also opened a gateway in how a user effectively utilized these spatial and non-spatial data to derive results from their own specific analysis. It has also changed the way people interact with high-end technologies which were once confined in dedicated systems and operated by trained persons. Now with the incorporation of this technology in smart devices, it is time that agencies like ours look into the opportunities for extending services to meet challenges in this advanced and interconnected world.

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At an official function organised on 14th May 2015 at NLUP Conference room, the Atlas was released and handed over to the NLUP Implementing Board (NIB) as well as representatives of Line departments present at the programme. The function was chaired by Pu H.Liansailova, Vice Chairman, State Planning Board, and hosted by Pu J.H.Rothuama, Chairman, NLUP Implementing Board. Pu P.L.Thanga, Member & Secretary, State Planning Board and Vice Chairman, NIB gave a brief introduction about the initiation of the project, followed by a technical report given by Dr. R.K.Lallianthanga, CSO, Dte. of Science & Technology and Member Secretary, MIRSAC. Dr. Lalnunsiama Colney also gave a presentation on the proceses involved for the execution of the project. The function was attended by Officers from Line Departments, NIB, Science & Technology, and media personnels. The Centre expects that the data provided through this project will be of immense value addition to the implementation objectives of the UN project team as well as the NLUP Implementing Board.

MIRSAC GOVERNING BODY MEETING

The Governing Body Meeting of MIRSAC was held on 19th June 2015 at Chief Secretary's Conference room, New Secretariat Complex at 2 PM. The meeting was presided over by Pu Lalmalsawma, Chief Secretary, Govt. of Mizoram & Chairman, MIRSAC. A total of 15 members representing state Line Departments attended the meeting. The Chief Scientific Officer & Member Secretary, MIRSAC gave a brief report on the activities of the Centre during 2014 - 2015. According to his report, the Centre had completed 3 projects during the reporting year and 4 projects were being executed currently which constitute both National and State level projects. The report also stated that data generated at the Centre were provided to various user Departments/institutions at nominal charges. A list of major data users during the reporting year was also presented before the meeting. The draft Annual plan for the forthcoming year 2015 - 2016 with a financial target of ₹.401.86 lakh was elaborated and approved at the meeting. This included sections of administration, collaborative projects, sponsored projects, publication and data & service charges. The Audit report and summary of Account of the Centre for the year 2014 - 2015 was also duly presented at the meeting and consequently approved. The Member Secretary also reported that the Centre had submitted a project proposal on 'Digital 3D Terrain mapping and modelling of 8 districts of Mizoram using Geospatial techniques' to NEC, Shillong and is under consideration.

The meeting discussed on the importance of sending Scientists of MIRSAC for various training courses offered by renowned National level Remote Sensing and GIS institutes in the country. It was approved for sending one Scientist for such training courses in a year. The concluding part of the meeting had a discussion pertaining to data requirements and comments on project executed by the Centre.





RECENT COMPLETED PROJECTS

Land Resources Potential mapping of Aizawl District using R.S and GIS

A project for mapping the land resources potential of Aizawl district has been completed under the collaborative efforts of NLUP Implementing Board, Govt. of Mizoram and under funding of the UN Joint Initiative Project, UNO. An atlas containing maps and other relevant land resources data & statistics was prepared and handed over to the NLUP Implementing Board at a function organised on 14th May 2015 at NLUP Conference room.

Groundwater Quality mapping under RGNDWM

This nationwide project executed under the collaboration and co-ordination of Ministry of Drinking water & Sanitation and NRSC, Hyderabad is part of the project on Groundwater prospecting and quality mapping under RGNDWM. For the state of Mizoram, the quality mapping has been completed with collection and submission of relevant data to the co-ordinating agency. These data comprised of informations about wells and other surface water features. The prospecting part has already been completed in the earlier phases and submitted to NRSC.

North Eastern District Resources Plan (NEDRP) for Kolasib, Serchhip & Saiha Districts.

A collaborative project executed with NESAC, Dept. of Space, Umiam to provide reliable, relevant, up-to-date and affordable information to the district administration and concerned Line departments for planning development activities in their districts in a user friendly environment using open source GIS software package. All relevant spatial data for each of these districts has been contributed by the Centre (MIRSAC) and organised in the NEDRP portal designed by NESAC. The information content of the portal has three major modules - Natural resources, Action plan and Administrative modules. The NEDRP portal for each district has been installed at the District Commissioner's office and has been inaugurated by each District DC.

PROGRESS OF ON-GOING PROJECTS

1. Mizoram Infrastructure Information & Monitoring System (MIIMS)

The compilation of data and composition of maps for district-wise atlas has been initiated with Aizawl district being completed. Map compositions and atlas preparation for remaining districts is under process. Training for deployment of the system in GIS environment and has also been completed. Creation of a stand-alone system for launching the final infrastructure data is underway and is expected to be operational within a few months.

2. Space Based Information Support for Decentralized Planning (SIS-DP)

With the submission of the land use / land cover mapping of 2 southern districts (Lawngtlai & Saiha) for EOC at NRSC, Hyderabad and NESAC, Shillong, most of the project work under this project has been executed. The Centre was recently visited by project personels from NRSC, Dept. of Space for cross-checking and validation of base and legacy data generated under this project. It is expected that data from this project will be launched on Bhuvan portal soon.

3. Rice Crop Acreage Estimation project (Mizoram)

This is a joint project with NESAC, Umiam wherein rice cultivation areas in the state are mapped using remote sensing techniques. Supervised classification and data analysis with subsequent ground truthing has been completed. The data and draft report has been sent to NESAC for finalization of report and statistics.

4. Land Resources Potential mapping of Lunglei District using R.S and GIS

The mapping for land resources potential areas under Lunglei district is under progress with preparation of GIS system generated land development plan. Validation and ground truthing of potential areas generated in the lab has also been recently completed. Additional data collected from ground-based survey and necessary corrections will be incorporated into the final maps and data prepared for Lunglei district. An atlas for this district will also be prepared once map composition is completed. The project is funded under the joint venture of NLUP & UN Joint Initiative project.

Employees Space

* The Officers & staff of the Centre extends their deepest condolence to Pu C.Lalzawngliana (Field Assistant) & his family on the untimely demise of his mother, Pi Zatluangi who passed away on 7th May 2015 due to heart failure. May her soul rest in peace. Our prayers are with the deceased family and may the Almighty guide and console them at these times of sorrow.

* A heartfelt congratulations to our colleague and fellow scientist, Pu ZD Laltanpuia who has been blessed with a beloved daughter on 14th June 2015.

* The Centre bids farewell to our long serving employee, Pi Rothangi (Sweeper) who retired from her job on 30th June 2015. We thank her for all the services rendered to the centre and wish her good health and success in her future endeavors.



NEWS & ACTIVITIES

* **Dr. C. Vanlalramsanga, Secretary, Planning etc, Govt. of Mizoram visited the Centre on 19th January 2015 and interacted with the Officers, Scientists & Staff of MIRSAC. A short programme was organised at the Centre's Conference room on his behalf.**



Dr. C. Vanlalramsanga, Secretary, Planning etc, Govt. of Mizoram visits MIRSAC.

* **Pu F. Lalramchuana, Sr. SO, Pu R. Lalfamkima, Scientist, Pu Lalthazuala, Cartographer & Pu David Vanlalfela, FA were detailed for ground data collection under MIIMS project within Lawngtlai and Saiha districts during the last part of February.**

* **Pi Hmingthanpuii, Sr. Scientist & Pu Lalfakawma, FA were detailed for ground truthing within Aizawl district under UN funded Land Resources Potential mapping project during the month of March.**

* **Pu H. Lalhmachhuana, Pi Vanlalmuansangi, Scientists and Pu David Vanlalfela, FA were detailed for ground truthing under the project on 'Remote sensing based Rice Crop Acreage estimation in the state of Mizoram' at all districts of the state during 9th - 13th March 2015.**



Ground survey & data collection for interpretation and map validation.

* **Pu Edward Lalzuithanga, Sr. Scientist and Pi Vanlalmuansangi, Scientist were detailed to visit NESAC, Umiam for project work under Remote sensing based Rice Crop Acreage estimation project and also to attend the completed SILKS project review meeting from 16th - 20th March 2015.**

* **Pu ZD. Laltanpuia, Pu R. Lalfamkima, Pu C. Vanlalengkima, Scientists & Pu C. Lalzawngliana, FA were detailed to assist Scientists from NESAC for the inauguration of NEDRP stand-alone systems at DC offices of Serchhip, Saiha and Kolasib districts during 20th-23rd April 2015.**

* **Pu H. Lalhmachhuana, Scientist was detailed for project work at SAC Ahmedabad under the collaborative project of 'Desertification Status Mapping for Mizoram' from 5th-8th May 2015.**



Release of Land Resources Potential Atlas of Aizawl District at NLUP conference room.

* **The 'Land Resources Potential Atlas of Aizawl District' prepared by the Centre under funding of UN Joint Initiative project was released and handed over to NLUP Implementing Board by Dr. C. Vanlalramsanga, Secretary, Planning etc, Govt. of Mizoram on 14th May 2015 at NLUP Conference room.**

* **The Centre was visited by two Research scholars from NRSC, Dept. of Space - Mr. Virat Arora & Mr. Kuldeep, in connection with updation/data quality check of SISDP project, and also for demonstration of Bhuvan Panchayat portal.**

* **Pu Edward Lalzuithanga, Sr. Scientist, Pu R. Lalfamkima & Pu C. Vanlalengkima, Scientists attended a one week training programme on 'ARC GIS Server site configuration and maintenance' & 'Web application building with Java script API' at ESRI, Gurgaon from 25th - 29th May 2015.**



Visitors from NRSC, Dept. of Space with MIRSAC Officers and Scientists

* **Pu H. Lalhmachhuana was detailed for ground truthing within Lunglei district under the project on 'Land resources potential mapping of Lunglei district using Remote Sensing and GIS', from 16th - 19th June 2015.**