MIRSAC Newsletter

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

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MIRSAC Executive Committee Meeting

Executive Committee of MIRSAC

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Member Secretary:		Dr. R.K.Lallianthanga Project Director, MIRSAC

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A BRIEF HISTORY OF MIRSAC

Dr. R.K.Lallianthanga



The race in the field of advancement in Science & Technology for development has necessitated the establishment of Science, Technology & Environment Cell under Planning Department, Government of Mizoram in 1986. Ever since its establishment, despite its limited manpower, Science & Technology has carried out various programmes for the State of Mizoram.

In order to explore the natural resources for planning and execution of various developmental activities in the state, the pre-requisites are up-to-date and reliable data. This led to the establishment of Remote Sensing Centre under Science & Technology in the year 1988.

For effective functioning and flexibility in management and execution of the projects, the centre was re-established as an Autonomous Government Institution under Science, Technology & Environment Wing, Planning Department (Notification No.B.13015/1/2007 – PLG, the 2nd September, 2008), and was registered under Mizoram Society Registration Act No. 13 of 2005 (Reg. No. MSR – 30 of 19.1.2007).

MIRSAC is a nodal agency and apex organisation in the State for advising and disseminating Remote Sensing Technology and Geographic Information System to various Departments in the State. It is also the sole centre in Mizoram that executes projects sponsored by Department of Space, Government of India. We are happy to learn that the data generated by MIRSAC are being utilized by various State Departments/Organizations, etc. in their respective area of developmental activities.

Agro-Met Station at Hnahlan, Champhai district



Agro-Met Station (AMS) was installed under the project 'Energy and Mass Exchange in Vegetative Systems' in collaboration Space Application Centre (SAC) Ahmedabad at Hnahlan, Champhai district, Mizoram. This station has twenty one sensors for dectecting and recording soil and atmospheric conditions like soil moisture, soil temperature, soil heat flux, rainfall, humidity, wind speed, atmospheric pressure, air temperature, Net radiation and diffuse radiation. The station, being automatic, can transmit the data which it generates through satellite network.



This project, funded by ISRO/DOS will yield benefits for the scientific community and the farmers.

From Editor's desk

Approaching the year end and getting a retrospective glimpse of all that has been accomplished, its gives me a sense of pride that the centre has been doing exceptionally well in its project executions and service to the state by providing valuable baseline spatial data. The nature and diversity of these projects indicates the multi-disciplinary work-force backing up the centre in its endeavour to become one of the noteworthy nodal centre for providing today's advanced scientific data and support.

The level of detailed data and village level planning approach which has been initiated this year can be one of the milestones that marks the Centre's capability towards excellence in providing valuable data to the line departments. Realising this effort and capability, the centre's participation in the Government's Flagship programme of NLUP for mapping and monitoring the land use pattern gives us an edge and great sense of responsibility in grassroot development projects of the state.

Important Visitors at MIRSAC



Members of Sericulture Project Monitoring Committee visited the Centre on 18th Nov., 2010.



Dr. Ravi Shankar, Head Land Use Division, NRSC visited the center for quality check of Wasteland Change Analysis, Mizoram.

ON-GOING PROJECTS AT MIRSAC

1. Disaster Management System Project

The project involves mapping and analysis of major natural calamities like landslide, earthquake, cyclone and flood in Mizoram. Besides this, Landslide hazard zonation is being mapped for selected towns of Mizoram including Aizawl City at the scale of 1:5,000.

2. Hazard Risk and Vulnerability Assessment.

This project is funded by Disaster Management and Rehabilitation Department for Aizawl district . The project will cover assessment of all the natural calamities as mentioned in DMS project.

3. Integrated Land Use planning for Serchhip District.

This is an in-house project taken up by the centre to map the land use and prepare a land use plan map for Serchhip district. Preparation of base layers have been completed and the plan maps are at its final stage of integration and generation. Mapping has been done at 1:10,000 scale which will be effective for Operational (Village) level plan preparation.

4. Remote Sensing and GIS inputs for NLUP project.

The Centre involves in preparation of various Remote sensing and GIS inputs for monitoring of land use under the Government flagship programme- NLUP. Following the success of the Pilot project of Land use planning in Zawngling Village, Saiha District and the centres capacity to replicate the methodology for other villages of Mizoram, 7 villages in Mizoram will be covered at the initial stage of this project. Mapping of these 7 villages is being done now for base data preparation.

5. Remote Sensing and GIS Inputs for Forest Working Plan.

A joint project with NESAC, Shillong and Environment & Forest Dept., Govt. of Mizoram is at its second stage of project plan. Inputs from Remote Sensing and GIS will be prepared by NESAC and MIRSAC jointly and field work done by Env. & Forest Dept. Density mapping is underway for the Reserve Forests and Riverine Reserve Forests.

6. Sericulture Development Project- Mizoram.

This project is at its final stage of completion with all the statistics and maps prepared at the centre. Integration of the data in the SILKs software is yet to be done.

7. Other Projects like Spatial Assessment of Soil Carbon Pool, NUIS Project, 10K Thematic Mapping, etc are also being carried out by the Centre.

PROJECTS RECENTLY COMPLETED BY MIRSAC

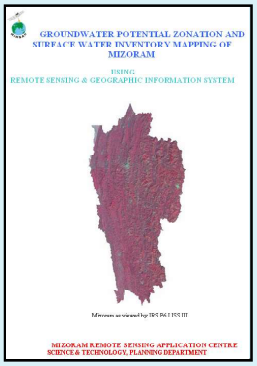


Land use Planning for NLUP Implementation using Remote Sensing & GIS. A Pilot study of Zawngling Village, Saiha District

This project envisages the utilization of Remote sensing and GIS data for scientific planning of land and water resources. It was executed as a pilot project in for land use planning of Zawngling village following the guidelines of NLUP, formulated by the State Govenment. IRS P6 LISS IV and Cartosat-1 imagery was used for mapping, and survey was done for generation of the thematic layers to finally generate a village level Land use planning database and map. This project is the outcome of the interest and support given by Mr.Kunal, I.A.S, District Commissioner, Saiha District and Pu. P.L.Thanga, I.A.S (Rtd.), Vice Chairman, NLUP Implementing Board. The project was appreciated by NLUP Implementing Board.

Groundwater Potential Zonation and Surface Water Inventory Mapping of Mizoram using Remote Sensing and GIS

Mapping of Ground water and Surface Water at 1:50,000 was done for Mizoram state using Satellite data - LISS III and other ancillary data like Survey of India toposheets. The project was funded by PHE Dept, Government of Mizoram. This project gives detailed information about the ground water and surface water prospects and potential in Mizoram. District wise cum toposheet wise maps were prepared by the Centre in the form of hard copy A0 size sheets. Reports including statistics for the concerned potential zones was also prepared and handed to the concerned department for further utilization in their projects.



Digitization of Core Network under Mizoram PWD (PMGSY)

Updation of road network following the norms and guidelines of PWD department which includes proposed roads was digitized by the Centre as a part of the PMGSY project. Base satellite data - LISS III and SOI toposheets were utilized for preparation of the road layers. The road layer would constitute different classifications of road.

National Wasteland Change Analysis Project for Mizoram

A nation-wide project executed by MIRSAC for the state of Mizoram. Wastelands of Mizoram during the period of 2005-2006 were crossed referenced with satellite data (LISS III) of 2007-2008 to map out the changes in wasteland and identify the areas where there are positive, negative as well as no change in wastelands. The project was in itself an updation as well as Change analysis process of the wastelands prepared during the period of 2005-2006. The project was funded by NRSC, Hyderabad and co-ordinated by NESAC, Umiam. The change matrix statistics and spatial data were submitted to NRSC for incorporation into the nationwide wasteland change analysis database. A comprehensive report of this project indicating change patterns of wastelands in Mizoram will also be prepared later.

MIRSAC DATA UTILIZATION BY VARIOUS USERS (during July-December 2010)

In addition to the above projects, the Centre is generating various data/maps for the user department on user paid basis. Few examples are: 1) Range Map,etc for DCF Lai Autonomus District Council 2) Watershed map, Soil map, Drainage map for Director, R.D. Department 3) Village/School Map for RMSA, Mizoram Education Mission Society 4) Map of Tut Catchment, etc for Director, Transport Department 5) State map with village, Block & 8 district maps for DM & R Department 6) Drainage, Watershed, Geomorphology, Geological, Ground water Potential, Landuse Land cover, Soil maps of Mizoram for Director, Soil & Water Conservation Department,etc.

Photo Gallery



Visiting TNT(Orphanage Home)



Training @ MIRSAC Conference Hall



Project Director giving mementos to the trainers

NEWS & ACTIVITIES

* Training for NUIS project - Lunglei town was held at the centre. NESAC Scientist, Smt. Jenita Nongkynrih visited the centre during 3rd & 4th August for this training.



Training on NUIS P roject

* Dr R.K. Lallianthanga, Project Director , MIRSAC attended the Sensitization and User Need Assessment Workshop and high level meeting under North Eastern Spatial Data Infra-structure (NESDI) on 19th & 20th August 2010 at NEC Shillong and Guwahati respectively.

* Pu Lalnunsiama Colney, Senior Scientist, MIRSAC presented a lecture on 'Technology Inputs: Application of GIS & Remote Sensing in Watershed Project for Scientific Planning' on 8th-12th November, 2010 for the programme 'Planning & Management of Watershed Project' organised by NIRD & SIRD.

* 1st Meeting of Project Monitoring Committee (PMC), Sericulture Project was held on 18th November, 2010 at State Guest House, Aizawl. The meeting was chaired by Mrs. M.Sathiyavathy, IAS, Member Secy, CSB and Chairman, PMC. Dr.P.P. Nageswara Rao, Member Secy, PMC and Mr.B.K Handique, Scientist, NESAC gave presentation on the status of the projects and overview of the SILKs software. Mr.Lalnunsiama Colney, Senior Scientist,MIRSAC also gave a brief presentation on the progress of mapping done by the Centre.



1st PMC Meeting on Sericulture Project

* Pu F. Lalramchuana, Scientific Officer attended the National Consultation Workshop on Hazard Risk & Vulnerability Assessment on 23rd & 24th November, 2010 at New Delhi.

* Pu K. Lalrammuana, Senior Scientist presented a lecture on 'GIS Application for Watershed' on 1st December 2010 in the training course on Preparation of DPR under IWMP at SIRD campus, Kolasib.

* Pu Robert Lalchhanhima Sailo, Scientist and Pu H. Lalhmachhuana, Scientist attended a training on Forest Working Plan Map Preparation during 1st-16th December, 2010 at NESAC, Shillong.



Training on RS & GIS in Disaster Management

* Training on GIS & RS Application in Disaster Management was held at the Centre from 13th - 16th December 2010. Ms. Sreeja S. Nair, Asst. Professor, NIDM, New Delhi and Mr. Vivek Kumar,Scientist, Jharkand Space Application Centre were the resource persons for this 4 days training programme. The training was inaugurated at Administrative Training Institute by Mrs. Maria CT. Zuali, Joint Director, ATI. Scientists & officers from MIRSAC, ICT, Police Dept., DM&R Dept., UNDP participated in this training.

* The Centre has recently recruited three new scientists. They are C. Vanlalengkima BE (Computer Science & Egineering), Rosy Vanlalzarzovi BE (Civil), Lungmuana MSc (Agri.).



A Day at TNT Centre, Zuangtui

* On 20th December 2010, Project Director and staff of MIRSAC visited TNT, home for orphans and mentally retarded people. Seven bags of rice were offered from the contribution of the Officers and staff of MIRSAC for the inmates of the home.