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

Volume: 9 July - December 2017 Issue: 2







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. PWD, P&E, UD&PA, DM&R, Irrigation & Water Resources, Drinking Water & Sanitation, Agriculture (Crop Husbandry), Horticulture, Geology & Mineral Resources, Land Resources, Soil & Water Conservation, Rural Dev.,

Land Revenue & Settlement.

& Sericulture.

#### **MIRSAC Editors**

: Robert Lalchhanhima Sailo **Fditor** 

Jt.Editor : R.Lalfamkima

Contact Address:

Mizoram Remote Sensing Application Centre Science & Technology, Planning Dept. Mizoram Secretariat Complex, Aizawl,

Mizoram. Pin- 796001

☎ Office : 0389-2333240 : 0389-2336139 Fax

■ Email : mirsac\_aizawl@yahoo.com

#### OBSERVANCE OF NATIONAL REMOTE SENSING DAY -11<sup>TH</sup> AUGUST, 2017

The National Remote Sensing Day - 2017 which commemorates the birth anniversary of Dr. Vikram Sarabhai, Father of Indian Space Programme, was observed by the Centre on 11th August, 2017 at Dte. Science & Technology. The celebration function had Pu Lalsawta, Hon'ble Minister, Planning (Science & Technology) present as the Chief Guest who also flagged off the Centre's Unmanned Aerial Vehicle (UAV) on the occasion. The function was chaired by Dr. R.K.Lallianthanga, CSO & Member Secy. MIRSAC and a presentation on Applications of Remote sensing & GIS was given by Dr. Lalnunsiama Colney, Principal Scientist, MIRSAC. This was followed by UAV demonstration by Pu C.Vanlalengkima, Scientist.

An exhibition showcasing the basics & types of Remote sensing, its Applications and prominent projects taken up by the centre was also organised within the confines of the venue and as a sideline to the celebration function. The function was attended by Officers from various line departments of the state, NGOs from Science communities, University professors, academicians, scientists, science enthisiasts and Science students from Govt. Mizo Higher Sec. School, Aizawl. Pamphlets about remote sensing/GIS and recent report materials were also distributed to the invitees present at the function.



Presentation by Dr.Lalnunsiama Colney, Principal Scientist, MIRSAC



Students & invitees at the Celebration function





Pu Lalsawta, Minister, Planning (S&T) giving speech and visitng exhibition stall



Hon'ble Minister - flagging off MIRSAC UAV



#### From Editor's desk



Capacity building for inclusive growth in Geospatial technology become clearly inevitable when we are talking about its extensive use in governance or society. As this technology is constantly evolving, its predictive use can be skeptical and

also depends on how fast it is integrated in other technologies. With emerging new technologies and location based services becoming more and more fundamental in all processes, a number of new pathbreaking concepts have took the centre stage. There are some definite trends that have evolved very fast, like the use of high resolution images, drones, location based services, crowd-sourcing, etc, and these will surely go on to define the geospatial landscape not only during the current era but for the next few generations to come.

In this cob-web of geospatial technological advancements, it has been a prime focus for various agencies to catch up in this race through innovative projects that aim to strengthen the confidence and knowledge of working group classes which in turn yields widespread use of space technology at grassroot levels.

### Workshop for North Eastern District Resources Plan (NEDRP) - Mizoram

A One-day workshop on North Eastern District Resource Plan (NEDRP) for Mizoram state was organized at New Secretariat Conference hall on 12<sup>th</sup> December, 2017. Dr. C.Vanlalramsanga, Secy, Planning Dept. was the Chief Guest at the opening session. The Workshop had two sessions chaired by Dr. R.K.Lallianthanga, CSO & Member Secy, MIRSAC & Dr.Lalnunsiama Colney, Principal Scientist, MIRSAC respectively. Presentations about the NEDRP project and live demonstration about the NEDRP Geoportal was given by Mr.Robert Lalchhanhima Sailo, Scientist, MIRSAC & Mr. PS Singh, Scientist SE, NESAC. The workshop was attended by officials from various line departments of the state.



#### Hazard Risk & Vulnerability Analysis (HRVA) Workshops at Serchhip & Mamit

A workshop on HRVA of Serchhip town was organised on 29th September, 2017 at DC Conference hall, Serchhip. The workshop was chaired by Pu Vabeimozachhi Chozah, SDC, Serchhip District. Pu Chuauthuama, MCS, Deputy Commissioner, Serchhip district was the Chief Guest at the workshop. Presentation on 'Vulnerability of Serchhip Town against various hazards' was given by Pi Vanlalduhi Ralte, District Organiser. This was followed by a presentation on the on-going project initiatives on HRVA for Serchhip town given by Pu Z.D Laltanpuia, Sr.Scientist, MIRSAC.

Following similar objectives, a one day workshop on HRVA for Mamit district was also organized at DC Conference hall, Mamit on 26<sup>th</sup> October, 2017 under the Chairmanship of Pu Lianzela, MCS, Addl. Deputy Commissioner, Mamit District. A presentation on the ongoing project work for hazard risk and vulnerability analysis for Mamit district was given by Pu ZD Laltanpuia, Sr. Scientist, MIRSAC.

Both the workshops had good response in terms of attendance and interactions and was attended by Department officials, Village council & NGO representatives of Serchhip & Mamit town.













Glimpses of HRVA Workshops organized at Serchhip & Mamit



#### HAND-OVER PROGRAMME OF REPORT PREPARED UNDER CHAMAN PROJECT



The Centre has accomplised yet another initiative for horticultural development in the state and for Champhai district in particular with the completion of the project 'Co-ordinated Horticulture Assessment and Management using Geoinformatics (CHAMAN). The CHAMAN project is a collaborative initiative with SAC, Ahmedabad; NESAC, Umiam and MNCFC, New Delhi, Govt. of India, to bring about tangible developments under the Horticulture Sector. The project for Mizoram focuses on site suitability analysis for Grape crop in Champhai district using Remote sensing & GIS technology along with ground based observations. The mapping was done at 1:10,000 scale and GIS models used for analysis of suitable sites. The project also aims at horticultural development through a 'One district - one crop' concept at this first phase of project work execution.

The reports prepared for this project was handed to Dr. E.Saipari, Director, Horticulture Dept. by Dr. R.K.Lallianthanga, CSO & Member Secy., MIRSAC at a function organised on 11<sup>th</sup> July, 2017 at DST Conference hall, Dte. of Science & Technology, New Secretariat complex, Aizawl. The function was chaired by Pi Hmingthanpuii, Sr.Scientist and a brief presentation about the project was given by Pu Robert Lalchhanhima Sailo, Scientist. The function was attended by officers from Horticulture Dept., Govt. of Mizoram and Scientists of the Centre.



CHAMAN Project Report handed to Director, Horticulture Department, Govt. of Mizoram

#### **ON-GOING PROJECTS**

#### 1. Digital 3D Terrain Mapping & Modeling

The project is progressing as planned with DGPS ground survey and data collection completed for the remaining 3 districts, namely- Aizawl, Lunglei & Lawngtlai. 3D model generation for these districts is also being done including models for village level. The system for visually browsing the 3D terrain models is also prepared & at final stage of completion.

#### 2. Hazard, Risk & Vulnerability Analysis for 8 district Hqrs in Mizoram

The updation and creation of base GIS layers (roads, drainage, etc) for assisting in further analysis of hazard, risk & vulnerability components has been completed for Aizawl, Serchhip & Mamit district and corresponding maps and reports are being compiled. Workshops related to the project was also conducted in Aizawl, Serchhip & Mamit.

#### 3. Land Use / Land Cover Mapping - 3rd Cycle

The updation and change mapping of land use/land cover has been completed for the entire state. Internal Quality checking has also been done for the 8 districts. The data will be subjected for External quality check by next year.

#### 4. Wasteland Change Analysis Project - 2nd Cycle

This is a nationwide project funded by NRSC, Dept. of Space which focuses on mapping changes in wasteland during 2015-16 using 2008-2009 layers as reference. The GIS data had undergone EQC at ARSAC, Guwahati during June, 2017 and submitted to NRSC, Dept. of Space.

#### 5. Land Degradation Mapping (LDM) Project - 2nd Cycle

The project is a nationwide project executed in parallel with National Wasteland Change Analysis (NWCA) and Land Use Land Cover - 3rd Cycle mapping projects. The data has gone through External quality check and submitted to NRSC, Dept. of Space.

#### 6. Monitoring of IWMP activities using Geospatial tools

The project is funded by NRSC, Dept. of Space and aims to use Geospatial tools to monitor the activities of IWMP in the state and provide a platform for easy acess and management of project related spatial data. The data points and geotagged photos uploaded by field staffs are being checked and evaluated for accuracy using online BHUVAN services.

#### **Employees Space**

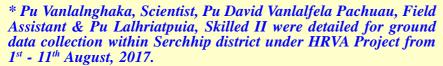
- \* Our deepest condolences to Pu C. Vanlalengkima, Scientist on the untimely demise of his dear borther at Champhai. May the Lord console and comfort the bereaved family members.
- \* The Officer and Staff of MIRSAC wished all its readers a Merry Christmas and a Prosperous New Year 2018.

# 0

#### **NEWS & ACTIVITIES**

- \* A Handover Programme of reports prepared under CHAMAN Project - Site Suitability Analysis for Grape crop in Champhai District was organised at DST Conference room, Dte. of Science & Technology, New Secretariat Complex on 11<sup>th</sup> July,2017.
- \* Pu R.Lalfamkima, Scientist & Pu C.Lalzawngliana, Field Assistant were detailed for DGPS ground survey within Siaha district under the Digital 3D Terrain modeling project during July, 2017.
- \* Dr. R.K.Lallianthanga, CSO & Member Secy., Pu Robert Lalchhanhima Sailo & Pu C.Vanlalengkima, Scientists attended the 'Workshop on Applications of Space Technology in Development of NorthEast region' organised by Ministry of DoNER, GoI, NCoG, Meity, GoI and hosted by Bhaskaracharya Institute of Space Applications & Geoinformatics (BISAG), Ahmedabad from 20th -22nd July, 2017.





- \* The National Remote Sensing Day, 2017 was observed by the Centre at Directorate of Science & Technology Office on 11<sup>th</sup> August, 2017.
- \* A Seminar on 'Harnessing the True Value of GIS' was jointly organised with ESRI, India at Aijal Club on 22<sup>nd</sup> August, 2017.
- \* Pu Robert Lalchhanhima Sailo, Scientist attended a project review meeting for CHAMAN at SAC, Ahmedabad from 18<sup>th</sup> 23<sup>rd</sup> September, 2017.C
- \* Dr.Lalnunsiama Colney, Principal Scientist and Pu R.Lalfamkima, Scientist attended the 6th Interaction Meeting of SRSACs at NRSC, Hyderabad from 21st - 22nd September, 2017.
- \* Pu R.Lalfamkima & Pu C.Vanlalengkima, Scientists, Pi Rosy Lalremruati Pachuau, UDC & Pi Chawngthansiami, LDC attended a training on implementation of ETA module of Public Financial Management System (PEMS) on 26<sup>th</sup> September, 2017 at NLUP Conference Hall, Aizawl.
- \* Pu ZD Laltanpuia, Sr. Scientist attended the Governing Body Council meeting of NESAC, on 4th October, 2017 at NESAC, Dept. of Space, Umiam.
- \* Pu C.Vanlalengkima & Pu Vanlalnghaka, Scientists attended a training programme for NESDR Project at NESAC, Umiam from 17<sup>th</sup> 18<sup>th</sup> October, 2017.
- \* Dr. Lalnunsiama Colney, Principal Scientist & Pi Vanlalmuansangi, Scientist attended a Two day workshop on 'Effective use of Geospatial Technology in Agriculture & Allied Sectors of North Eastern Region' organised at NESAC, Umiam from 21<sup>st</sup> 22<sup>nd</sup> November, 2017. They also attended a meeting for CHAMAN Project at NESAC on 23<sup>rd</sup> November, 2017.



CHAMAN project function @ DST, Aizawl



Ground truthing at Serchhip for HRVA project



Seminar on GIS - jointly organised with ESRI at Aijal Club



Workshop on Geospatial Tech. in Agri. & allied sectors, at NESAC, Umiam