Telangana State Remote sensing Applications centre

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CATALYST *for* tracr's THRIVE

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Thought for the month: "Education is not the learning of facts but, the training of mind to think"— Albert Einstein.

In this Issue

Kudos to best performers

Appreciations to

Sri Ram and Raj Kumar

for their performance in DKICs and for receiving appreciations for their contribution in district development programs from their respective district collectors .

Capacity Building Division wishes you all a happy new year 2018!

Fresh start

TRAC functions from a new location

TRAC office is relocated to a building which was previously occupied by DES at khairatabad, from 8th floor , B-block of Swarnajayanthi complex. A work space where TRAC has witnessed eight years of successful journey, including formation of TRAC after state bifurcation.

A lot of effort has been invested in redesigning the interior of the building to compliment TRAC's work environment. The building is three floored where the seating arrangement is distributed division wise in each floor, in spacious and well equipped rooms.

Accounts division and Web division in the ground floor have shared space with TSDPS department. First and second floors with Land resources and Geomatics accordingly. The process has taken more than a month's duration for renovation of the building, shifting of furniture and rearrangement of workspace in the new location.

The refreshed beginning of TRAC has commenced with a pooja on 21/10/2017. Additional Director General of TRAC Sri G.Sreenivasa Reddy, has participated in pooja along with the office staff. On this inaugural occasion lunch was arranged for the staff members.

Inauguration of TRAC at khairatabad.

Events

- DKIC review meeting was conducted on 3/11/2017 by Sri BP Acharya.
- Commissioner of CCLA Sri L.Sashidhar IAS visited TRAC on 18/12/2017 regarding NLRMP project plan.

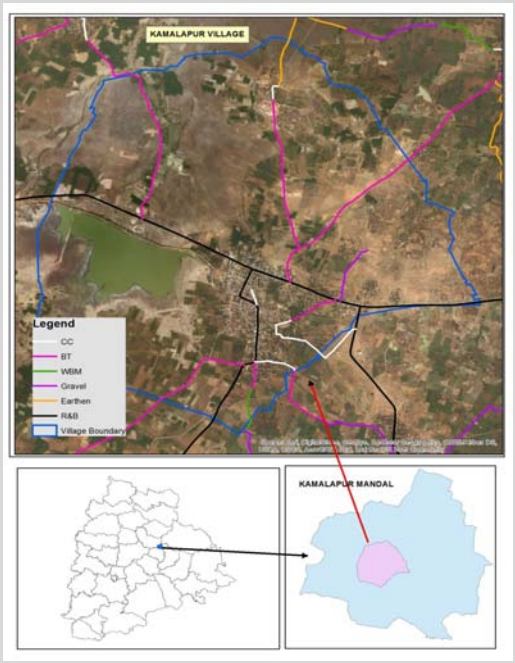
Sri L.Sasidhar Commissioner CCLA being welcomed at TRAC

Capacity Building:

- TALIM is conducting a training classes on ETS, DGPS, GIS to technical staff of The Technical Staff of Survey and Land Records Department. Where Capacity building Division of TRAC is invited to take the GIS classes. Two batches completed their training successfully so far.
- Training on basics of GIS to officials of National Institute of Plant Health Management (NIPHM) on 13.12.2017

PR Roads project at TRAC

With a goal to provide all weather road connectivity in rural areas of the country a fully funded Centrally Sponsored Scheme Pradhan Mantri Gram Sadak Yojana (PMGSY) was launched on 25th December 2000. PMGSY envisages connecting all habitations with a population of 500 persons and above in the plain areas and 250 persons and above in hill States, the tribal and the desert areas. National Rural Roads Development Agency (NRRDA), Ministry of Rural Development (MoRD), Government of India is implementing agency for this programme.



Road Network of Kamalapur Village.

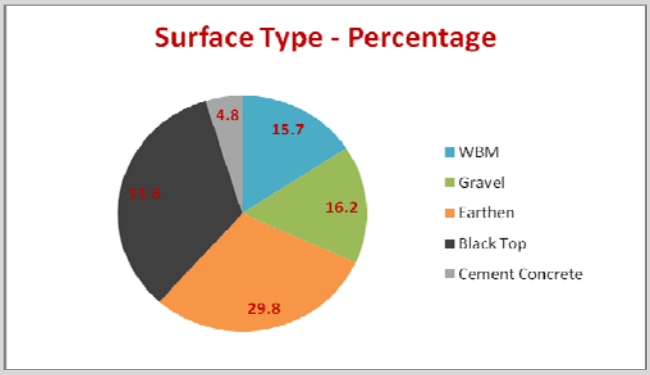
Implementation of GIS for PMGSY project is being executed in all the states of the country with the assistance of World Bank. It aims to establish computerized data base for core rural road network through development of web GIS linked to Road Condition inventories and also development of social and environmental screening using GIS platform. The PRED (Panchayati Raj Engineering Department) of Telangana State has entrusted the work to TRAC through MoU. The objective of the project is to bring the PR road network of Telangana State on GIS platform with necessary attributed information along with other layers as per the PMGSY guidelines, development of web interface and mobile application for geotagging the PRED assets from the field.

The rural road network GIS layer is extracted using high resolution satellite data. With the assistance of an in-charge for each mandal, for 546 mandals, the PR Roads are identified based on the name of the road and for each road segment a unique Road-ID (i.e. DDMMRRR (DD-District, MM-Mandal and RRR-Road No.), DRRP Code(District Rural Road Plan), CN Code(Core Network) and type of surface (BT, CC, Gravel, WBM, Others and R&B) is assigned.

A seamless mosaic of road network is prepared for the entire state. Habitation layer is created with reference to the road network layer, Survey of India Toposheets and High Resolution satellite. The Habitation Code provided is linked with the Habitation layer. As per the PMGSY guidelines Geodatabase of 14 layers is prepared which includes drainage, water bodies, forest boundaries, rail network, administrative layers, public works department layers and habitation layer.

ROAD SURFACE TYPE	LENGTH (km)	PERCENT
Cement Concrete(CC)	2,949	4.8
Black Top (BT)	20,674	33.6
Paved Roads Total	23,623	38.4
Water Bound Macadam (WBM)	9,634	15.7
Gravel	9,947	16.2
Earthen	18,305	29.8
Non-Paved Roads Total	37,886	61.6
Rural Roads - Grand Total	61,509	
Note - The figures provided above are as per the GIS database created at TRAC, these are yet to be confirmed by PRED field Engineers.		

Rural Road Network by Surface Type - Telangana State.



Rural Road Network by Surface Type - Telangana State

Among the rural roads in Telangana state based on surface type the black top roads cover the highest percentage of 33.6%, i.e., about one third of overall rural roads. Earthen roads cover the second highest percentage of 29.8% and the cement concrete roads covers the least percentage of 4.8%. The CC roads are of least coverage as they are concentrated mostly near the built-up areas.

Based on district wise rural roads coverage the highest percentage is for the districts of Nalgonda, Rangareddy and Mahabubnagar with 8.1%, 5.6% and 5.1% respectively. The least percentage of coverage is for the districts of Medchal Malkajgiri, Warangal Urban and Wanaparthy with 0.6%, 1.4% and 1.9%, this may be due to less rural area available in these districts.

A Mobile application is developed to capture the details of PRED assets such as bridges, cross drainage works, culverts, level crossing, construction materials sites, waste materials sites, markets and tourist places. The PRED engineers are in the process of completing this task from their respective regions. A web interface is developed for PRED, which facilitates to visualise, query and generate query based report. Queries such as identification of habitations not connected with PRED roads or habitations without a particular road surface type could be used as a decision making tools for planning the next phase of development or upgrading of roads.

The created huge Geodatabase of Rural Roads infrastructure would be much more helpful to the decision makers, if it is extended to include village intra road network and integrating it with the inventory of the Members of Parliament Local Area Development Scheme (MPLADS) , Constituency Development Programme (CDP), Special Development Fund (SDF) and other important schemes under the purview of the planning department.