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

NAGALAND GIS & REMOTE SENSING CENTRE

A joint initiative with National Remote Sensing Centre/ Indian Space Research Organization (ISRO)

NGISRSC

OBJECTIVES

- Spatial depiction of land & water resource along with their attribute information for preparation of District Resource Geospatial Atlas keeping Village Cadastral data as base in a virtual on seamless manner for entire country; (States which are already covered may be brought to uniform standard with respect to content and accuracies);
- Development of software tools and utilities (including web based GIS applications and standalone) for providing multipurpose user driven applications for speedy, accurate and transparent decision making for district planning; and
- Capacity building in state departments along with training of manpower and capability for spatial data analysis, which will maintain update & manage database and data dissemination for decentralized planning.

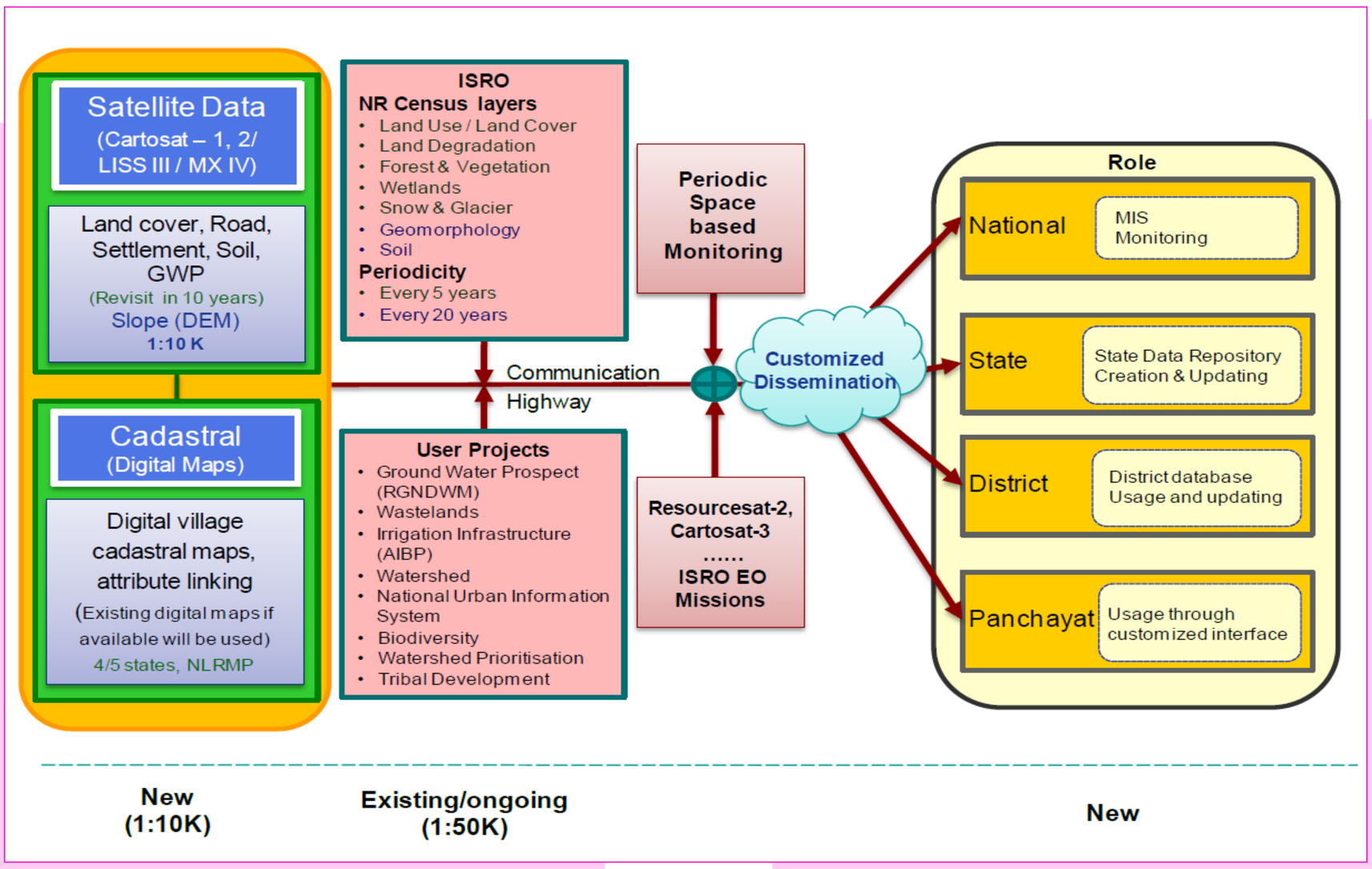
APPROACH

Creation of resource information from four major sources:

1. High resolution satellite imagery
2. Village cadastral maps
3. Attribute information from stake holders and
4. Existing thematic resource database

APPLICATIONS

A wide range of benefits will be derived from implementation of SIS-DP in planning, implementation and monitoring of developmental activities ultimately stimulating the rural development.



TASKS TO REALIZE THE OBJECTIVES

- ❑ Preparation of land cover, road network, settlement and slope at large scale (1:10,000) using high-resolution satellite imagery (Cartosat-1 PAN and LISS-IV Mx merged) for the period of 2009-11. Mapping of soil and preparation of Ground Water Prospect map on 1:10,000 scale for the priority areas;
- ❑ Integration of existing 1:50,000 scale layers available with ISRI / DOS on Land Use / Land Cover, Soil, Ground water prospect, watershed, land degradation and wastelands;
- ❑ Creation of digital village cadastral maps along with attribute data capture from digitized Village Cadastral maps and overlay on high-resolution satellite images along with ownership information available with state land record department;
- ❑ States where village cadastre maps are in digital format will be converted to common standards and integration;
- ❑ Extraction of infrastructure, Settlement (settlement) areas, drainage network layers from high resolution satellite imagery;
- ❑ Organization of attribute information available at various departments and their integration into spatial GIS layer. e.g. details on ownership, type, category, etc. will be linked. Collection & integration of socio economic data essentially covering health, education, woman & child welfare, social justice and availability of basic minimum services at village or block level, administrative boundaries and information on various central/state schemes information;
- ❑ Capacity building for technical manpower of various levels in creating, modifying, updating of GIS databases and operations of web information systems;
- ❑ Augmentation of facility at national, state, district and Gram Panchayat level for creating, analyzing, archiving, retrieving and dissemination of information from database;
- ❑ Storing databases and providing information services to all the users and stakeholders to enable planning exercises;
- ❑ Development of tools and packages for providing value added services in the form of digital atlas, hardcopy maps & reports, database query for information required forplanning & management;
- ❑ Up gradation of existing capacity building facilities at central /state level as knowledge centers; and
- ❑ Operationalization and establishing policies for involving all the stake-holder departments/ agencies for providing sustainable services for district planning and development.

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