CSI Nihilent e-Governance Awards – 2013-14

A Geographical Information System (GIS) having 37 layers was developed with technical help from Indian Space Research Organization (ISRO) through Regional Remote Sensing Centre (RRSSC), Nagpur.

Chhattisgarh GIS Project' with the objectives of generation of natural resources database for the state of chhattisgarh on 1:50000 scale using IRS LISS-III data, development of spatial database for road network using IRS PAN data and geo-referencing of village (cadastral) maps using high resolution IRS PAN + LISS-III data.

Using satellite data, natural resource mapping has been carried out on 1:50,000 scales based on satellite imageries and digital processing. The objective of GIS included inter-alia Road Information System, Georeferencing of villages (cadastral maps), integration of thematic information and socio-economic data for the generation of action plans, generation of comprehensive plan for water and land resources development and generation of watershed wise site-specific and area-specific action plans for easy implementation by local bodies. Some of the important layers included geomorphology, lithology, transport, soil slope, drainage, watershed, forest etc.

Milestones Achieved in projects such as –

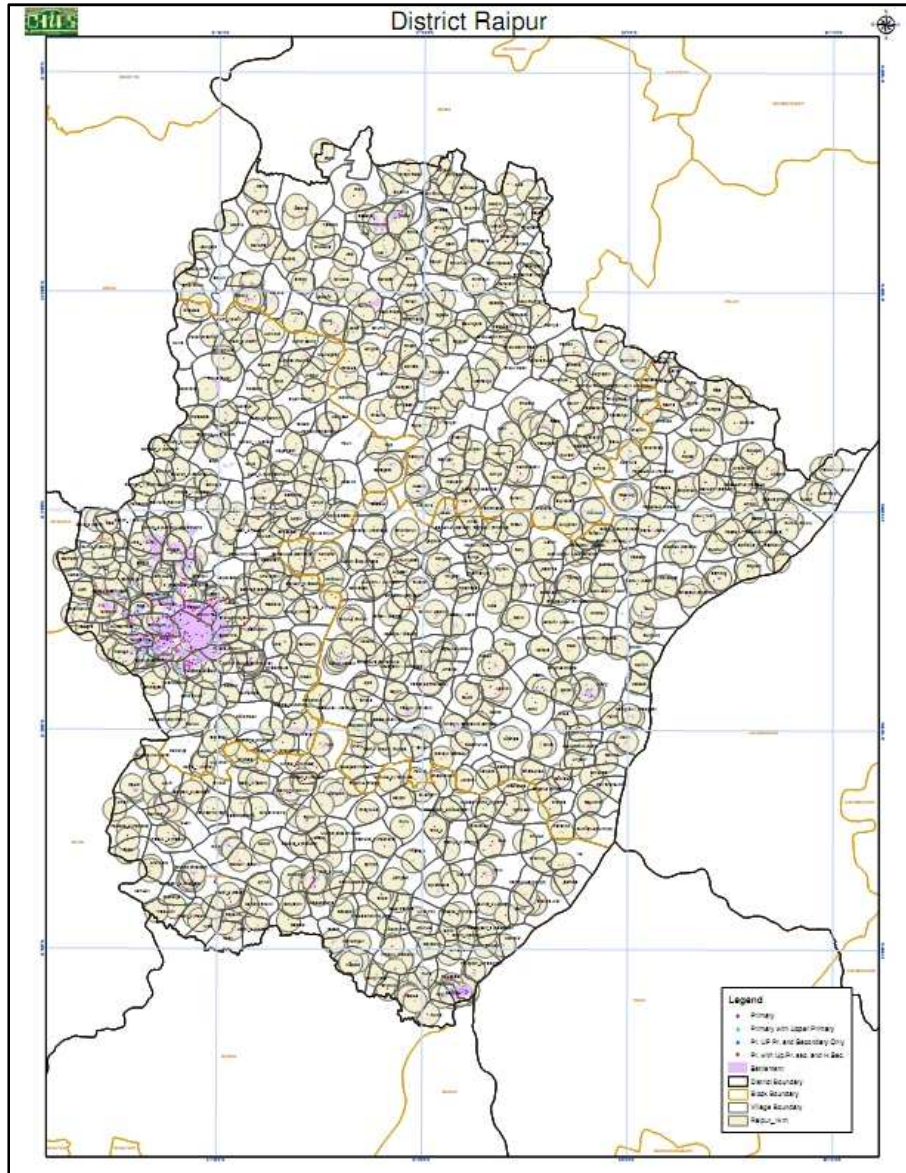### 1.Public Works Department (PWD) for Chhattisgarh State

1. Digitization and Creation of Roads
2. Secondly most essential step Quality Analysis/Quality Check and Integration of Roads which were categorized as per the unique code for National Highway, State Highway, District Roads and Village Roads updated and made more informative as per said under the guidance of heads and executive engineers of Road department Division wise of PWD for Chhattisgarh State.
3. Co-Ordination for data with different division & Sublevel.
4. Sample checking at different location
5. GIS Based Web Application for PWD comprising of natural boundaries layers comprising of Waterbodies, Political- boundaries layers, Road layers etc.,with their respective village boundaries and division boundaries.

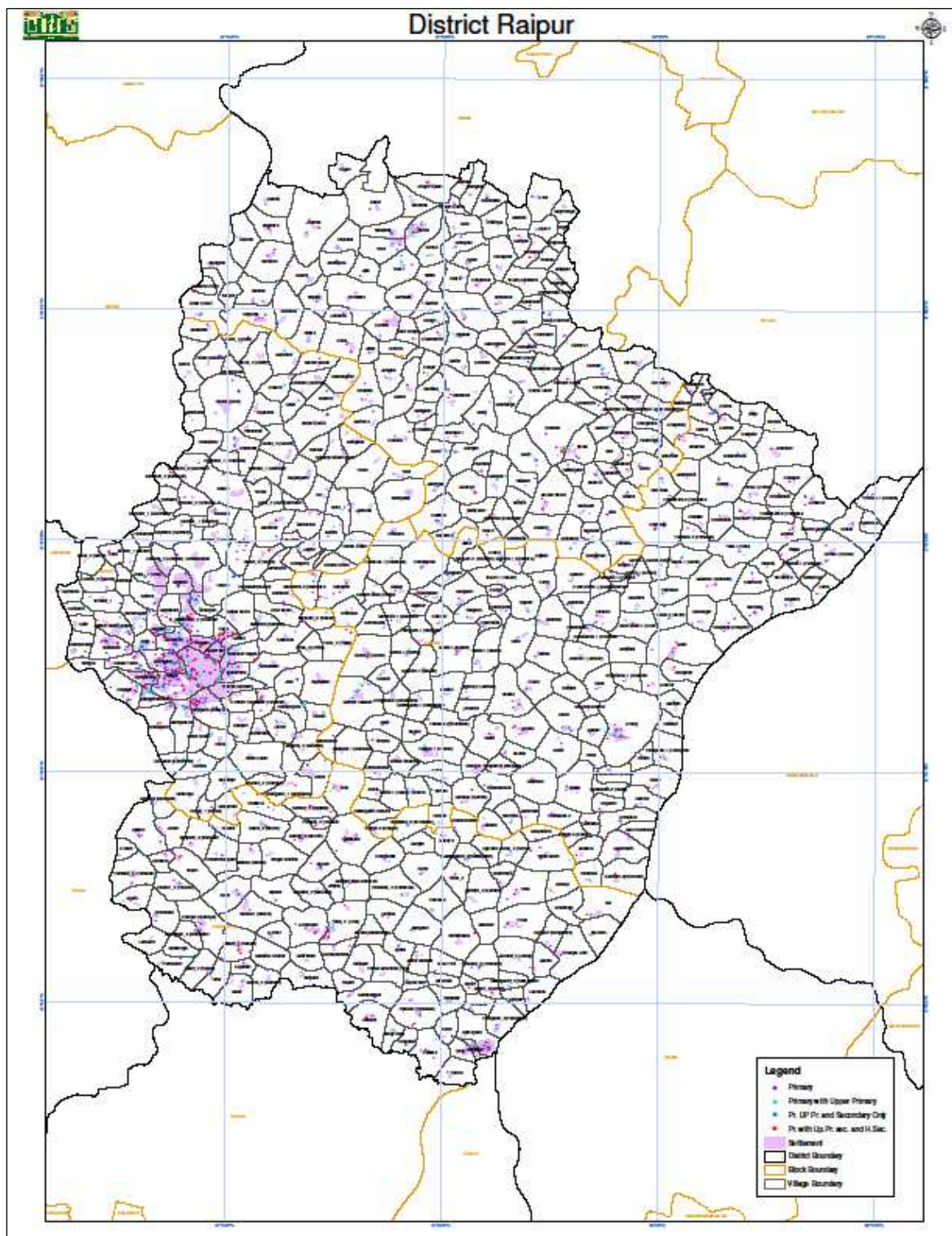### 1.1.Public Works Department, Mahasamund District ,Chhattisgarh

Requirement of Khasra Map for the construction of Mahasamund Bypass road-NH no.353 with Analysis and Mapping of NH no.353

2.Rajiv Gandhi Shiksha Mission (Education Department),Chhattisgarh

1. Locating and Mapping of school GPS points of their respective villages in Chhattisgarh state at every district. Work done on government schools such as Primary, Upper Primary, Secondary and Upper Secondary government schools with buffer created of schools of 1km,3km,5km and 7kms respectively.
2. For better planning perspective with the objective education for all children at every villages in every districts of Chhattisgarh. GIS Based Web Application for the same.

Map: 1km Buffer created of school points

Map: School points located with settlement details – Raipur District

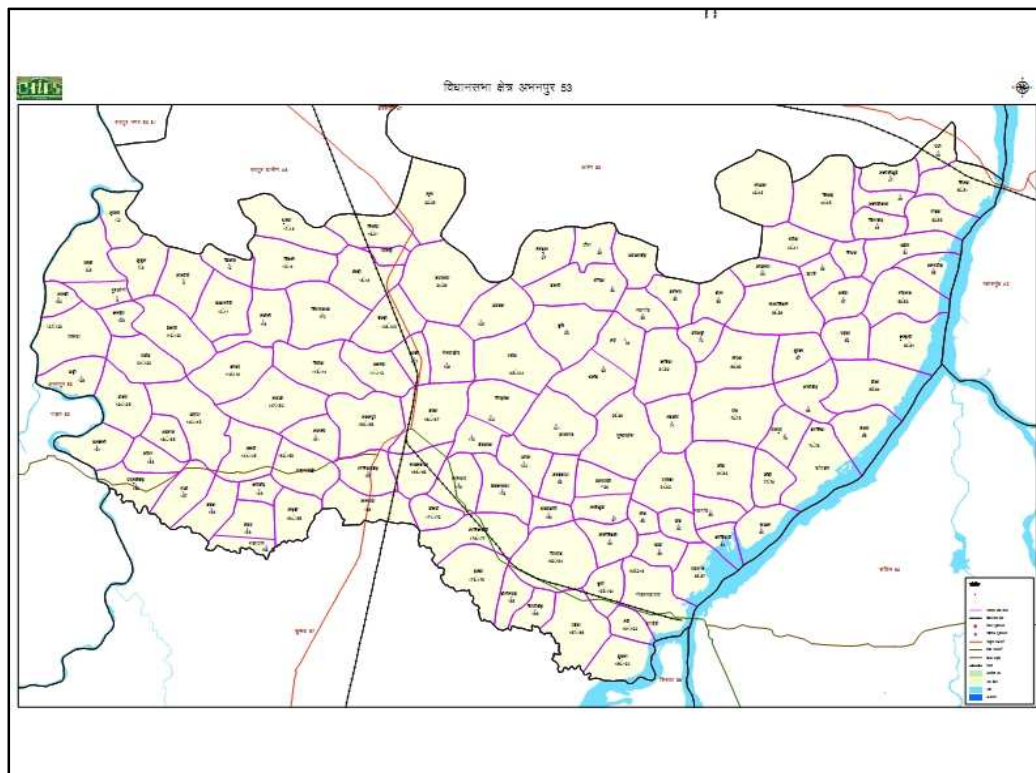### 3) Chhattisgarh State Electricity Board -CSPTCL

Plotting of Electrical Tower GPS points for 400kv,220kv,132kv ,digitizing and mapping of transmission lines of their respective Substation points.GIS Based Web application of the above mentioned details and layers for State

4) Delhi Metro Railway Corridor Gevra - Pendra -

1. Construction of railway corridor from Gevra Road to Pendra Road with informative maps of Bilaspur and Korba comprising with additional detailed layers such as forest, soil and landuse/land cover details etc .
2. Analysis and mapping of railway corridor zone with buffer generated around railway corridor.

5) Chief Electoral Officer of Election department for Chhattisgarh State –

1. Plotting and Mapping of all polling booths of 90 Vidhansabha's and 11 Loksabha's with their respective poll boundaries covering details such as road connectivity ,village boundaries and natural boundaries of their respective Vidhansabha's.
2. Election Commission GIS for delimitation of constituencies.
3. Election Office is using the system for demarcating Gram Panchayat boundaries, Janpad Panchayat boundaries, Vidhan Sabha boundaries, pictoral representation of census data and habitat and analyzing polling trends.
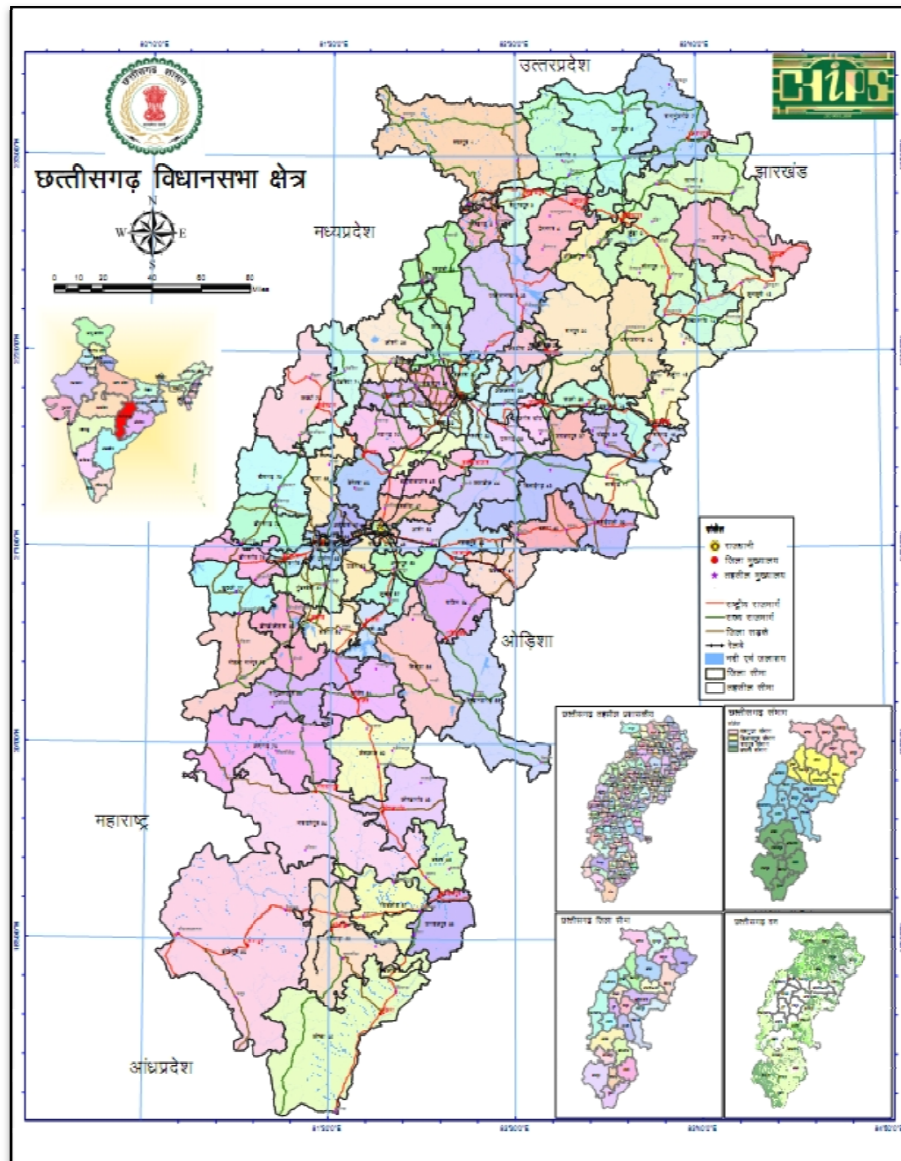

Map:Polling Booths with their respective poll boundaries –Abhanpur Vidhansabha

6) Watershed Department –

1. Water Resources Department is using the system for watershed mapping, water table mapping, demarcation of catchment areas and submergence areas, ground water simulation including site characterization, model development, post processing, calibration and visualization.

2. Micro watershed boundaries were delineated in relatively flat areas also.

3. Prioritization of watersheds and water resources development plans of priority watersheds.

7) Chhattisgarh ATLAS

1. Chhattisgarh State of Administrative Map
2. Tourism Map
3. Transport Network
4. Waterbody Map
5. Tehsil Map
6. Division Map
7. Forest Map
8. Lithology Map
9. Groundwater Prospect Map
10. Mineral Map
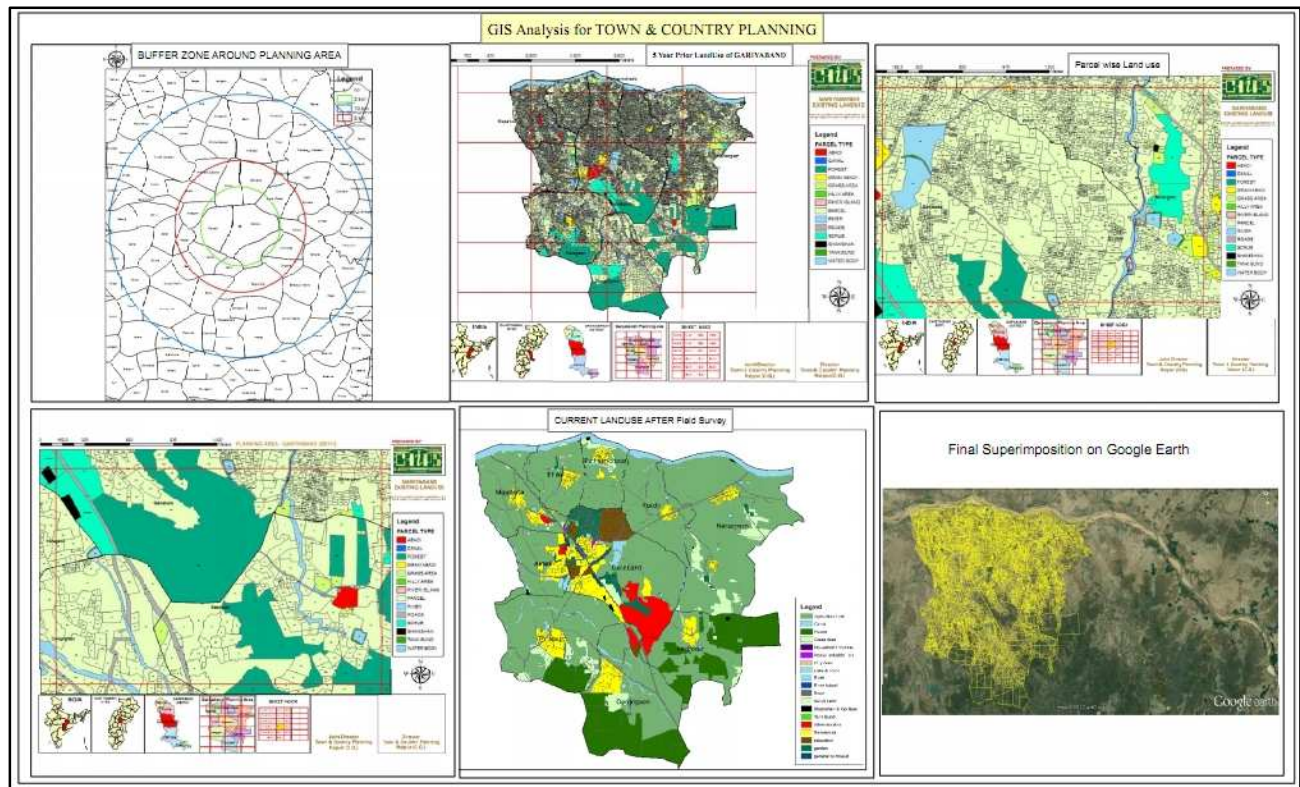11. Political and Physical maps of Chhattisgarh Districts

Map - <u>Chhattisgarh State Vidhansabha</u>

8) National Rural Development Authority(NRDA)

Developmental Planning of major towns and New Raipur City of Chhattisgarh State, Department of Town and country Planning, Raipur.
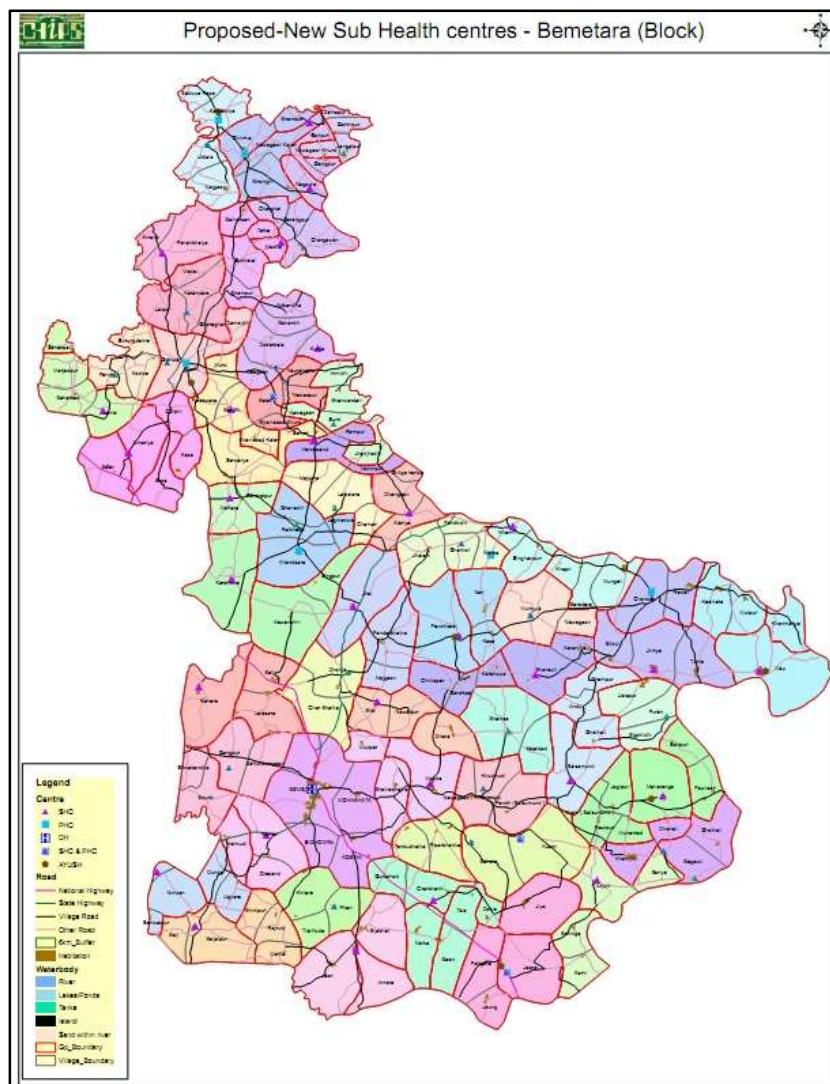
9) Town and Country Planning

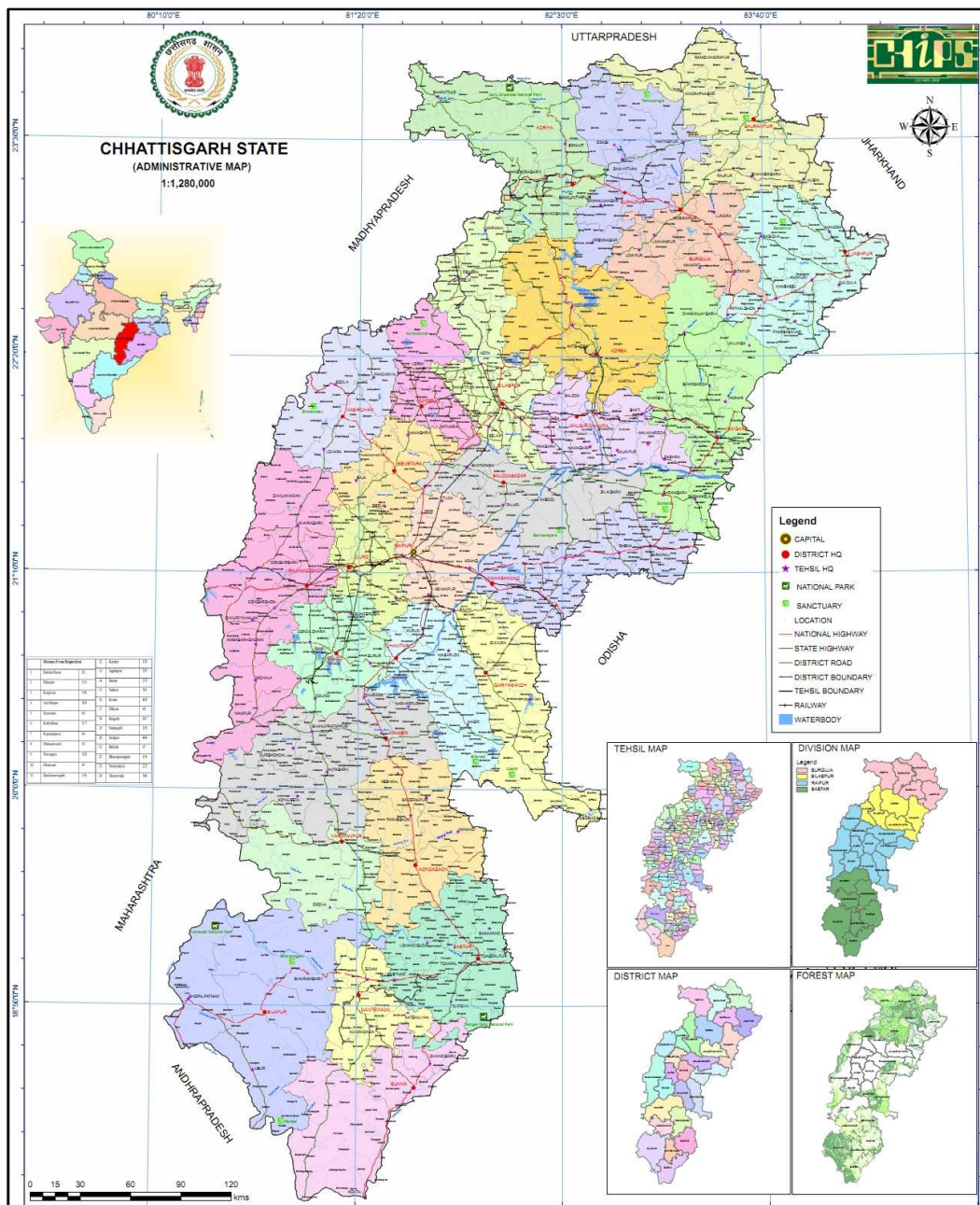Mapping of planning areas at district's level with detailed landuse/landcover details and villages boundaries

Map: <u>Town and Country Planning</u>

10) Health Department

Plotting of health centres such as PHC,SHC ,CHC ,AYUSH and DH.

Map: Proposed Health Centres - Bemetara Block

Map : <u>Administrative Map prepared for ATLAS</u>