

**Establishment of Web GIS for Cuddalore and Nagapattinam
Districts of Tamil Nadu(<http://tngis.tn.gov.in>)**

**Under the Chairmanship of Vice-Chairman, SPC at State Planning
Commission on 16.09.08, 12.00 Noon**

Geographic Information Systems(GIS) has become an important tool for managing, analyzing and decision making, by seamlessly combining both spatial and non-spatial data. In Tamil Nadu, a vast volume of spatial data sets have been generated through GIS projects undertaken by several departments and agencies. The present challenge is to integrate and coordinate these varied and disparate efforts to build a GIS structure for the state as a whole. The present project at Cuddalore and Nagapattinam is a first step towards this larger objective of building TNGIS.

The basic issues addressed in this project are the need for data/information in decision making and to utilize the huge volume of existing data sets in various departments that are underutilized / unutilized. It is also observed that the source wise variation leads to spatial / locational inaccuracy of information and mismatch in spatial boundaries. Similarly the varied data formats and its interoperability poses constraints in data utilization. The other constraints in data usage are data update over time, capacity building and the tools available viz. proprietary versus open source tools in managing the spatial and non-spatial information. Above all, the developed datasets need to be integrated with the National Spatial Data Infrastructure (NSDI) and the required framework for wider dissemination over intranet or / and internet based solutions.

The Spatial and other Non-spatial information (digital and conventional) were collated from varied sources in the government domain and the discrepancies in the boundaries, scale and the co-ordinate systems were removed for establishing the required authentic layers for these districts. District boundary, as provided by Survey of India at 1:50 K scale in WGS 84 projection has been standardized as the common boundary keeping in mind the integration of all spatial layers under State Spatial Data Infrastructure proposed in TNGIS; and later with National Spatial Data Infrastructure (NSDI).

More than 70 layers / themes for each district under Administrative, Health, Educational, Transport, Water Resources, Physical Resources, Land use patterns, Watersheds and Water Quality have been integrated by National Informatics Centre, Chennai using Open Source GIS Software that has brought down the cost of the project drastically. Web GIS (<http://tngis.tn.gov.in>) has been adopted as the technology to provide interface for the various datasets keeping in mind the large number of users who would show interest to view the same. The layers are themes are made available with necessary hardware to the nodal departments in districts who are authorized to add / edit the layers for further value addition.

The generic software model created will enable faster replication of the GIS application to other districts and easy integration with attribute datasets later by the District GIS Administrator for establishing the larger objective of Tamil Nadu GIS (TNGIS).
