Key Points for Additional Secretary, DeitY on 29.03.2016
for Use of GIS in Informed Planning & Decision Making

1.   The Digital India vision provides the intensified impetus for momentum and progress for e-Governance initiatives. This would promote inclusive growth that covers electronic services, products, devices, manufacturing and job opportunities.

2.   India in the 21st Century must strive to meet the aspirations of its citizens where government and its services reach the doorsteps of citizens and contribute towards a long-lasting positive impact.

3.   Leveraging GIS for decision support systems & development is a key area to realize the sub-vision viz. "Governance & Services on Demand". The application of GIS is vast and can be suitably applied in e-Governance.

4.   In order to provide necessary hand-holding support to user Departments, the National Centre of Geo-informatics has been constituted. The corresponding project cost of Rs.98.28 Crores for a period of 3 years has been approved by DeitY.

5.   The vision behind NCoG is to be one of its kind 'GIS platform' for Sharing & Collaborating GIS data source, location based analytics and 'Decision Support System' serving to Central / State government departments, businesses as well as provide hosts of citizen services.

6.   The National GIS platform shall be available on cloud and provide opportunities for organizations to become more cost-effective, productive, and flexible in order to rapidly deliver new GIS capabilities.

7.   Some of the key activities which are being carried out by NCoG are:

- Development and maintenance of a uniform, standardized and seamless GIS database for the entire country

- Development of a unified and standard GIS platform for data deployment and dissemination across all ministries, departments and to citizens.

- Design the customizable interface for decision supports for editing, updating, process the spatial data and dashboards.

- Create metadata and catalogue for spatial data repository for easy and quick search.

- Develop GIS connectors and open APIs (Plug & Play) interfaces for integrating with MIS applications of various domains.

- Provide decision support to the sectoral stakeholders through scientifically organized, comprehensive, multi-purpose, compatible, and large scale (village level) geo-spatial databases and supporting analytical tools.

- Provide efficient means for geographical data distribution and handling

- Eliminate redundant database and minimize duplication

- Provide holistic geospatial view by integrating information from many sources.

- Perform complex analysis / queries involving geographical reference data to generate new information / decision inputs.

- Increase efficiency of geospatial data maintenance

- Develop computer based teaching material; handholding & capacity building to various department ministries.

- Rollout GIS based governance process supported by a comprehensive, easy-to-use location based decision support system with participatory and quality dimensions into decision, planning and development.

- Raise resources for taking up activities.

8.   In order to implement the GIS based DSS which is based on federated architecture, cost effective and is based on a scalable platform to facilitate sharing, collaboration, location based analytics & decision support system across stakeholders as is inline with DeitY's policy, it was decided that such system may be based on Open Source Software. Accordingly, NCoG has forged alliances with NIC, Bhaskara Institute for Space Application and Geo-Informatics (BiSAG), National Remote Sensing Center (NRSC), ISRO, Ministry of Science and Technology, Indian national GIS Organization (INGO), National Spatial Data Infrastructure (NSDI) etc. in the areas of application development, GIS data inputs, satellite data and GIS related trainings.

9.   NCoG plans to take a 'Bottom to Top' approach to implement such application, based on the requirements of the user Ministry/Department/Agency. NCoG is currently involved in study of requirements and rolling out the following GIS based decision support systems (DSS) with support from BiSAG and NIC.

          a.   Project under implementation (4):

               i.   Government Land Bank Information System (Ministry of Urban Development)

ii. Demarcation of villages and plotting of related infrastructure (Rural Electrification Corporation)

iii. GIS based Mining Information System (Ministry of Mines)

iv. Integration of GIS capabilities with Plan Plus (Ministry of Panchayati Raj)

b. Projects in pipeline (5):

i. DSS for National Disaster Management Authority

ii. Surveillance of Malaria across country (Indian Council of Medical Research (ICMR))

iii. Application for ensuring land rights under Forest Rights Act (FRA) (SC & ST Welfare Department (Govt. of Bihar))

iv. Digital Land Record Modernization Project (Department of Land Resources)

v. Overlay of soil testing layer on the GIS based map for the country (Indian Council of Agricultural Research)

10.   DeitY is in is also approaching various Ministries to explore the possibilities of rolling out the sector-specific integrated GIS based DSS like Integrated Watershed Management System for Ministry of Rural Development (MoRD), DSS for Women and Child Welfare Department, Carrying capacity vs. utilization DSS for Railways, DSS for Police Department, DSS for Archaeology Department, and DSS for regulation and monitoring of coastal zone, administration etc. for Ministry of Environment, Forest and Climate Change (MoEF) etc.

11.   This workshop aims to bring the related States and Departments together, for chalking out the way forward in order to implement the National GIS portal which can be mutually beneficial to all.