

# **Use of GIS and Space Technologies under Digital India**

<Focus Group no. 5 >

Capacity-building for adoption  
of Geospatial Governance  
Systems

# Participant List

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9	Sheetal Chopra	NIELIT	Dy Director
10	Dr Deepak Kumar	NIC	
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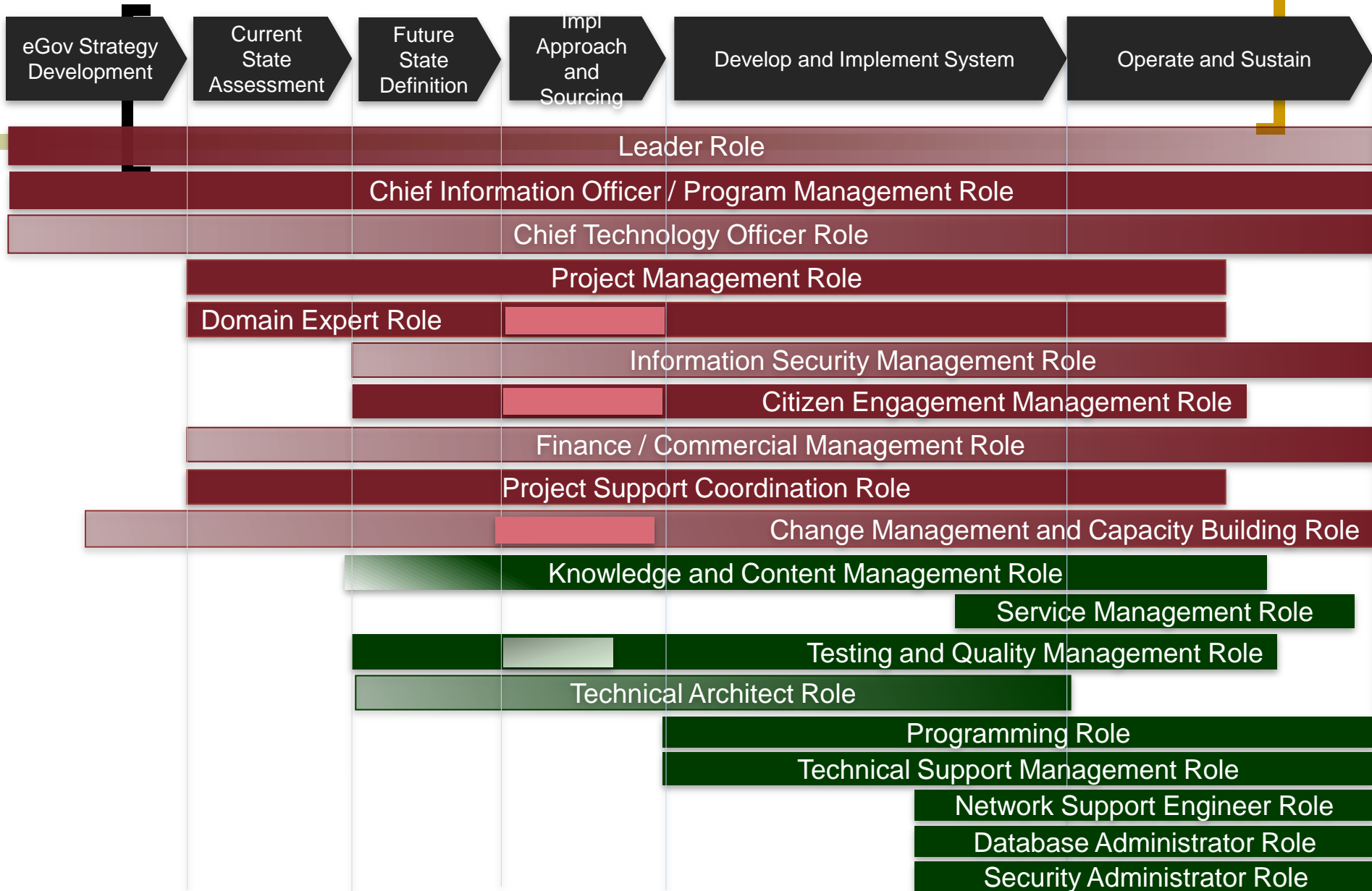
# Capacity-building for adoption of Geospatial Governance Systems

- Educate the User Organisation in order to consume services hosted on the GIS platform.
- Short-term courses customized to cater to individual user departments.
- Capacity building in departmental training institutions like FTI, NPTI to conduct refresher courses for serving officers.
- A separate cadre Geographic Information Officer (GIO) to be created to build and retain geospatial competencies in the departments as a central resource.
- Strengthen existing Geospatial education infrastructure in academic institutions.
- Skill up gradation programme for faculty in order to align their knowledge base to current and new technologies.
- Robust internship programme for merging domain and GIS technology skills.
- Engage private sector in continued augmentation of GIS resources.
- Policy framework to support the development exchange and application of GeoSpatial data existing in some countries
- Institutional arrangement to facilitate production and exchange of harmonised GeoSpatial datasets

# Components of Capacity Building

<b>CAPACITY BUILDING FOR GEOINFORMATICS</b>	Purpose	Focus
	Human resource development	Technical and professional personnel
	Organizational Strengthening	Strengthening & institutionalisation
	Institutional Strengthening	Strengthening implementation of policy legal and regulatory frameworks

# e-Gov Lifecycle mapping with e-Gov Roles\*



\* Note: Not all e-Governance Projects will require all roles. It depends upon the size and complexity of project

# CB Requirements for Geospatial- India



Target Participants	Knowledge Area	Skill/Training	Courses Available	Course to be developed
Leadership Level	Best Practices (creating spatial awareness) National/International  (Sources- GEOSPATIAL world Directions Magazine Mycoordinates GIM international)	Sensitization programs	NA	One day sensitization
Policy Level (Strategy and Design) (CIO , CTO)	IT geography and Any associated Domain Knowledge	Capability to understand Spatial Thinking	ISRO IIRS Dehradun Anna University C-DAC NIST etc	Short Course on Geo informatics (2 to 3 days)
Implementation (eg:- future state definition, Bid management. Vendor management etc)	Market Knowledge Geospatial industry Latest Survey Technologies to be developed	Project Management Public Procurement Geospatial Technology Bid Management Vendor Management Program Management Change Management	ISRO (RRSSC, SRSAC IIST) NIFM Anna University IIRS Dehradun C-DAC NIST etc PM Certification	Short term course for 5 days on Geospatial User application training program
Technical Resources (Under Strategic Control of Govt.)	Geospatial, Domain Knowledge and IT	Geoinformatics Remote sensing Programming Mapping & cartographic Field surveying	GIS and IT 10 months PG Diploma IIRS 4 Year BE degree 2 year MTech in Anna university etc	More PG Level Courses to be developed Short term national and international courses Executive courses
Students	MHRD National Task Force on GEOSPATIAL Education, can be referred		Strengthening of Institutions Anna University	GIS Education (from 11 <sup>th</sup> onwards) Industry participation for offering internship, research

# Recommendations

1. Creation of GIS Index
2. Guidelines for usage of GIS for integration with MMPs
3. GIS to be embedded into e-governance to resolve implementation issues
4. Strengthening of institutes which work on GIS for private skill training, agriculture, mining, disaster management etc., inline with Institute in Gujrat
5. Using available connectivity through NKN, a national Geospatial research and training grid to established for sharing case studies, training material etc so that virtual GIS training capacities can be built
6. A hub and spoke model for capacity building up to district level
7. E-Courses and modules to be developed
8. GIS specific bid process standards need to be developed to aid Govt organizations
9. GIS nodal officers at State and Central ministries
10. Registration/Certification of GIS engineers
11. Deputation of govt officers for higher education in GIS courses