



Group 5

Capacity-building for adoption of Geospatial Governance Systems

20th February, 2015



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- 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

- **Applications** of GIS are varied and applicable in the areas of natural resources management, disaster management, planning and development, environmental management, land and water management, ocean and marine research, climate change and many other areas where people, society are involved.
- However, the **deployment** has yet to see an overarching and synergized approach. The work done by various agencies present in the GIS domain such as NIC, MoES (Ministry of Earth Sciences), Survey of India, Department of Science and Technology, Department of Space etc needs to be enhanced, integrated and leveraged.

- Stakeholder Identification
- Capacity for what by studying GIM requirements
- Participants identification

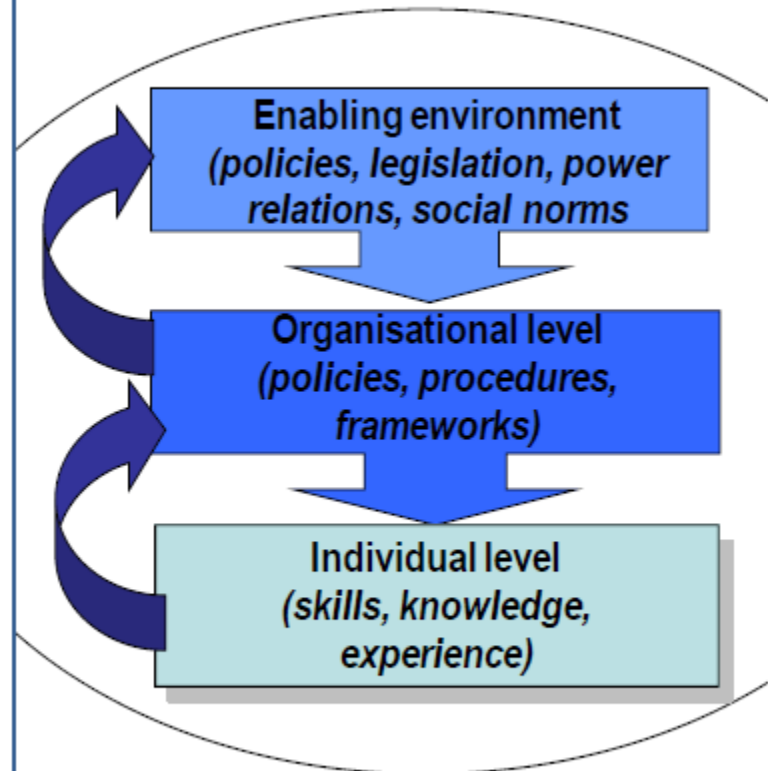
- For Whom?
- From Where?
- How?

Components of Capacity Building

CAPACITY BUILDING FOR GEOINFORMATICS	Purpose	Focus
	Human resource development	Supply the technical and professional personnel
	Organizational Strengthening	Strengthen the management capacity of organisations, institutionalise GEO—ICT solutions (systems and processes) as well as strategic management principles
	Institutional Strengthening	Strengthen the capacity of organisations to develop and negotiate appropriate mandates and modus operandii as well as appropriate (new) legal and regulatory frameworks

UN Africa Study Report

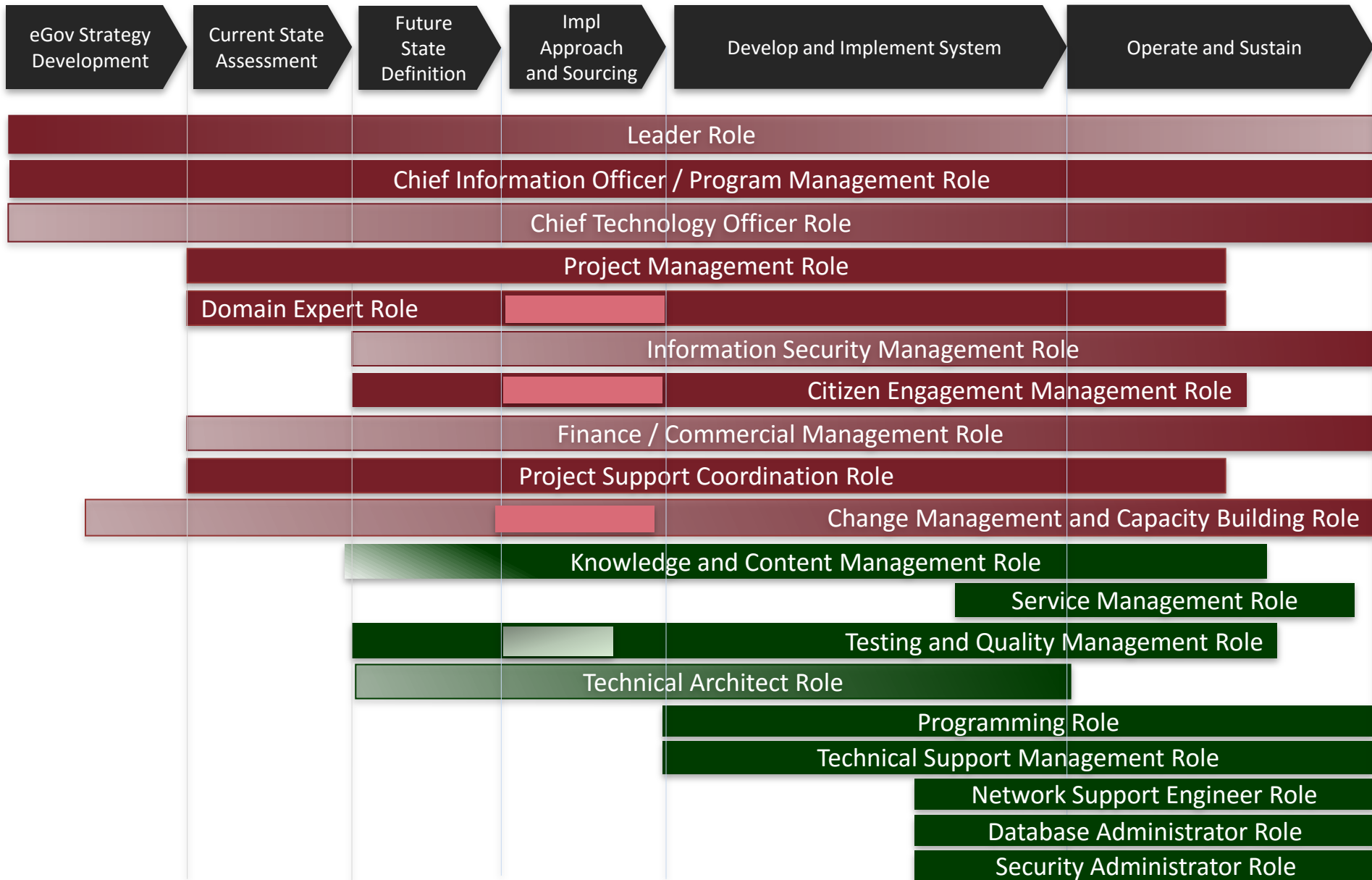
- The area where most success was achieved from investment in GIM was at the individual level.
- Not the same level of investment was made at the two other levels:-
 - Some institutions were strengthened, new ones were established
 - Much less sustained efforts and success have been recorded at level of enabling environment
- Investments in individual capacities do not always translate into institutionalisation of knowledge, policies, systems , and processes.



UN Africa Study Report: Changing landscape, new capabilities

- ❑ The internet and the way information is exchanged and used
- ❑ Dynamic infrastructure for managing and using information
- ❑ Collection and use of geospatial data is no longer the exclusive preserve of GI specialists
 - Location-specific data increasingly created by a growing range of technologies.
- ❑ Ability to handle location-specific data on the fly
- ❑ Map-enabled applications and location services now commonplace
 - ❑ New computing capabilities
 - Cheap, portable storage devices
 - Cloud computing
 - Mobile and powerful platforms designed explicitly for data consumption
 - Tactile systems

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

Recommendations

- Recommendation- GIS Index
- At leaders - creating spatical awareness..use directly in decision making and integration with schemes. How to resolve issues using GIS.
- Anna- GIS in forest, land mgmt. IIRS-
- IT manpower- is not geo enabled- needs reorientation to embed GIS into eGov
- GIS / Geology resources- need GIS and IT training
- Visag/ Gujarat.. States should have strengthen instituions which work with GIS ...private skill trianing- agri & work. Tool knowledge to be provided. Miniing , disaster, climate etc. strengthening of institutions
- With presence of connectivity. National Geospatial Research & trianing grid for geospatial – which share case studies/ training etc. And this can be connected to the GIS platform..Virtual capcities need to be built in (IIST,ISRO)
- Hub and support model a should be developed at the district level
- Incentives for developing eCourses ..eModules.
- Bid Process standards- to understand parameters of mapping Geo spatial
- Reengg the NKN node for geospatial abilities
- GIS nodal officer at State

Recomendations

- Legal\
- Application of GIS by IT cadre
- mapping & cartography..have become digital
- 3 month national and international..institutes where officials can be training
- Content and data for tarining
- Customize course, ISRO and C-DAC are developing courses
- Chemical Disaster Mgmt with GIS...user level training, ICFRE,IIFM,
- Technical resources- 1 yr courses by IIMs, mid level officers
- Deputation of Govt. Officers for Higher education
- Registration of GIS engineers, so that repository of GIS experts can be maintained to facilitate collaboration

CB Requirements for GIS- India

Target Participants	Knowledge Area	Skill/Training	Courses Available	Course to be developed
Leadership Level	Best practices			
Policy Level (Strategy and Design)				
Implementation (eg:- future state definition, Bid management. Vendor management etc)				
Technical Resources (Under Strategic Control pof Govt.)				
Legal /regulatory framework				
Students	MHRD National Task Force on GEOSPATIAL Education, can be referred			

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