



Department of Electronics and Information Technology
Ministry of Communications and Information Technology
Government of India



Digital India

Workshop on Geo-Informatics

by Kerala SeMT

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Progress of Kerala in Implementing GIS based Decision Support Systems (DSS)

Name of the Owning State Department	Name of the Implementing Agency	Implementation Area <e.g. Agriculture, Natural Disaster, Forest, Aviation, Mining, Infra., Health etc.)	Status
KSDI	KSITM	<p>Forest</p> <ul style="list-style-type: none"> • Kerala Forest Research Institute • Forest department <p>Agriculture</p> <ul style="list-style-type: none"> • Tropical Botanical Garden and Research Institute <p>Health</p> <ul style="list-style-type: none"> • National Rural Health Mission <p>Information Technology</p> <ul style="list-style-type: none"> • Department of Information Technology <p>Land Survey</p> <ul style="list-style-type: none"> • Directorate of Survey and Land Records <p>Mining</p> <ul style="list-style-type: none"> • Mining & Geology Department <p>Planning and Development</p> <ul style="list-style-type: none"> • Kerala State Landuse Board • Kerala State Remote Sensing and Environment Centre • Information Kerala Mission 	<p>Completed</p> <p>Work in progress</p> <p>Work in progress</p> <p>Work in progress</p> <p>Work in progress</p> <p>Work in progress</p> <p>Work in progress</p>

KSDI services are utilized by 24 departments

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KSDI	KSITM	Planning and Development <ul style="list-style-type: none"> State Institute of Rural Development Kerala Institute for Research Training & Development of Scheduled castes/Scheduled Tribes Town and Country Planning Department 	Work in progress
		Public Works <ul style="list-style-type: none"> Public works Department 	Work in progress
		Research & Development <ul style="list-style-type: none"> Kerala State Council for Science Technology and Environment National Centre for Earth Science Studies 	Work in progress
		Soil <ul style="list-style-type: none"> Soil Survey Organization 	Work in progress
		State Administration <ul style="list-style-type: none"> State Planning Board Kerala Institute of Local Administration Kerala Sustainable Urban Development project 	Work in progress

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KSDI	KSITM	Transportation <ul style="list-style-type: none">National Traffic Planning and Research Centre Water Resources <ul style="list-style-type: none">Centre for Water Resources Development and ManagementWater Resources DepartmentGround Water Department	Work in progress Work in progress

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Kerala - GIS Implementation Stage

- Kerala State Spatial Data Infrastructure (KSDI) is the nodal agency formed in the year 2011 for GIS related activities
- KSDI services are utilized by 24 departments, envisaged with 100+ layers
- Forest portal is integrated to KSDI and is operational
- The geo-processing framework is ready and we are building various layers
- SeMT is working with Kerala State IT Mission (KSITM) and various departments in finalizing the vision and approach
- KSITM through its nodal agency KSDI is building a common geo spatial data information system for the State

Serviceable Layers in KSDI Geo-portal

Administrative Boundaries	General Soil Grouping	Hazards
State boundary	Ground Water Yield	Coastal Erosion
District Boundary	Ground water prospects	Draught Prone area 2011
Taluk Boundary	Landform	Earthquake
Block Boundary	Land-use	Flood
LSGD Boundary	Lineament	Landslide hazard Zonation
Village Boundary	Major Lineament	Lightning Frequency per year
Place Names	Lithology	Lighting Locations
Assembly Constituency	Relief	Major Chemical Hazardous Units
Parliamentary constituency	Relative Relief	Unstable Road Cutting
District Headquarter	Slope	Sea wall
Taluk Headquarter	Soil (Texture, Erosion Production Class etc...)	Tsunami
Natural Resources	Soil Grouping	Chemical Hazard Threat zone (Moderate)
Agro-ecological Units	Watershed	Chemical Hazard Threat zone (Severe)
Drainage Line	Well Data	Transportation
Drainage Poly	Socio-economic Data	Road Network
Forest Type	Population Distribution, Density &	Railway Network
Forest Boundary	Occupational Structure	

GIS Plans & Goals of the State

- Build a common standardized infrastructure for spatial data information system
- On boarding all the departments on to KSDI
- Finalize vision and operational road map for the GIS
- Enable the state to utilize KSDI for effective planning, decision making and execution.

Support Desired from DeitY

- Kerala state requires support from DeitY for the following:
 - GIS framework –
 - Best practices to be adopted for the Framework enhancement.
 - Capacity building w.r.t. GIS :
 - Manpower : 5 (GIS Specialist, Programmer and System Administrator). – Approximate 30 Lakhs per year
 - Infrastructure Upgrade – Hardware and Software Licenses – Approximate 1 Cr
 - Proof of Concept Studies – Mobile ,location based apps & Analytics (GIS application development)

Thank You