

NSDI – 11 Bangalore Communiqué (Draft)
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Observing from various presentations made during the event that

- NSDI nodes are getting created in various national data providing agencies for access to respective geo-spatial data sets through WMS to begin with
- Draft National Data Sharing and Accessibility Policy is in the process of getting considered by the Union Cabinet
- National Geo Portal has demonstrated concurrent visualization of multi-source data sets/ images with the help of OGC-compliant Web Map Services
- There is an effort towards re-engineering geo-spatial data assets of Survey of India and other agencies for provision of Web Feature Services
- State Geo Portal and clearinghouses have been demonstrated in some measure by adoption of state-of-art technologies and standards as in case of Karnataka State and several other States are working on Geo Portal prototypes
- There are islands of reasonably well-developed GIS databases in a State set up like in the Revenue Deptt, Municipal Administration; Watershed Development; Remote Sensing Appl. Centre etc. but data sets of one agency are not shareable or integrable with collateral geo-spatial data sets from other sets
- There are duplications in spatial data generation or conversion and there is no effective sharing of data sets acquired or compiled by the Line Departments/ Agencies in a State
- There are several emerging trends and technologies in the Geospatial Domain like Crowd Sourcing, Cloud Computing, Mobile Computing, Web Processing Services, Agent-based Modelling, Cartographic Generalisation etc.
- There are several impediments to implementation of SDIs like institutional inertia, lack of marketing orientation to sharing of digital geo-spatial data sets, inadequate technical capacity
- There is a vibrant GIS Industry to support development of SDIs/ Geo Portals with the help of state-of-the-art technologies and the Industry would like to have a sustained growth of Geo-spatial Market,

and recognizing the need to

- help realize State Spatial Data Infrastructures in the forthcoming years
- put the available geo-information services to applications in various end user agencies/ Line Departments across different stakeholder communities for better return on investment and
- transform e-Governance gradually to g-Governance (inclusive of mobile computing and delivery of location-based services) for improving effectiveness, efficiency, and transparency in decision-making processes towards the NSDI vision of sustained economic growth

it is recommended that

A. Policies and Governance of State Spatial Data System

- A proper policy framework in line with the draft National Data Sharing and Accessibility Policy (NDSAP) should be drawn up by the State Governments for governance of geo-spatial data in States
- A State level Coordination Committee should be constituted under the chairmanship of a senior official of the level of Chief/ Additional Chief Secretary or Secretary Planning with membership drawn from Secretaries of Line Departments concerned with spatial data in the State. The Secretary S & T or Information Technology could be the Member Secretary of the Committee. A group of leading scientists/experts from the relevant domains should be inducted in the Committee along with representatives from the corporate sector and the civil Society.
- Similar committees should be constituted at the district level, headed by the District Collectors with heads of various Line Departments in the districts to coordinate spatial data management including acquisition, maintenance, distribution/ sharing and utilization of such data at sub-district levels.
- For developing GIS infrastructure for decentralized governance in the State, a GIS Cell at headquarter of each district should be established as a part of the State SDI initiative. The responsibility of updating GIS data should be vested with the GIS Cell. The Cell should update its GIS data on daily, monthly and annual basis at the Cell and then upload as Web Map Service or Web Feature Service for sharing with all.

B. End user needs and metadata

In order to ensure optimal utilization of the State SDIs, information need assessment of the community of decision-makers, common man, the students and research community should be regularly carried out. A mechanism should be available to

discover and access data/ metadata to satisfy the end user needs based on proper evaluation and quality assessment.

C. Technologies, Standards, Applications and Interoperability

- spatial data/ service integration from different sources be facilitated by hosting spatial data sets for a State by using standard specifications from the Open Geo-spatial Consortium (OGC)/ International Standardization Organization (ISO)
- SDI Application should be provided priority by developing specific tools for demonstration in identified sectors.

D. Capacity building

For capacity building of the State, on job training should be given to the Officers of the Line departments to a minimum two persons from each line department for digitization and data integration work of their own department as per their own information needs.

E. Human resources

- For application of GIS in decentralized governance, skilled/trained human resource and researchers in GI Science shall be required. For this purpose, GI Science should be inducted in higher education like at Post Graduate or Masters level by the State Governments. Universities may approach UGC for recognition of the courses in this emerging discipline.
- R & D activities be pursued and intensified in the emerging fields of Geo-spatial Domain (e.g. Crowd Sourcing, Cloud Computing, Mobile Computing, Web Processing Services, Agent-based Modelling, Cartographic Generalisation etc.) for development of relevant tools for use by the SDI stakeholders towards bridging the gap between the geo-spatial data and their utilisation.
- School children should be exposed to basics of geo-spatial data and core technological principles in order to nurture them for better appreciation of Geospatial Technology.

F. Market orientation

Data providing agencies may consider installing payment gateways to initiate and facilitate market orientation in Spatial Data Sharing so as to enable stakeholders to get access to geo-spatial data sets through on-line payment of requisite price.