Geospatial Knowledge Infrastructure Support National Development:
Enabling and Augmenting Sectoral Geospatial Programs

The national geospatial policy launched in 2022 identifies geospatial data and knowledge as crucial national infrastructure that provides social, economic, and environmental value, thereby enabling sustainable national development mandates. The citizen-centric policy lays down an overarching framework for holistic development of the geospatial ecosystem underpinned by GKI and IGIF principles in the country, enabling the move towards digital economy and improved services to users. The policy envisions improving availability of and access to better location data across organizations and sectors to enable innovations and encourage enterprise by 2025.

The program consists of dedicated sessions on geospatial strategies for 4 national development priority sectors – urban development, land administration and rural development, forestry and environment and geology and mining. Among the national development priority sectors, the geospatial market sizes in the mentioned sectors are the largest and are expected to grow further going forward.

KEY TAKEAWAYS:

→ At present the government investments for the National geospatial Agencies is spent heavily on developing in-house GIS software and data-integration platforms and sourcing hardware equipment for centrally and state-allocated projects such as SVAMITVA, National Hydrology Project (NHP), National Infrastructure pipeline (NIP) etc.

→ Analysis of the potential impact of the policy highlights a missed opportunity and pushes back the Indian geospatial economy by almost a year. However, the Indian geospatial economy will still grow if the government implements and formalizes the policy in early 2023 to realize its benefits sooner than later.

→ There is a need for national geospatial agencies to evolve from passive provider of map/geo data to proactive leadership and facilitator role.

→ There is a need to invest in digital infrastructure in the digital era, with requirement of higher computing power, data storage and communication network speed for various applications of digital infrastructure like smart cities, smart healthcare, smart retail, and intelligent transportation. Digital infrastructure is critical for delivery of services to remote areas.

→ One common challenge which was observed across all the sectors in two day sessions towards efficient implementation of policy components was, various institutions working in silos. Thereby, if we manage to break down these silos and promote inter-agency, inter-state cooperation for accurate data sharing and making it as a goal for better governance and public service delivery.

→ Other major challenge observed across all the prime development sectors is the lack of skill. So, there is a need to support an environment that will enable entrepreneurial, industrial, academic and professional capacity building in all the sectors, which will lead to knowledge and economic enhancement.

→ Some identified gap areas identified in forestry and environment sector are: Carbon mapping and cross sectoral carbon mitigation measures with state specific plans, man animal conflict mapping, adoption of LIDAR/RADAR technology and uniformity of the investment.

→ Some identifies key challenges and gap areas in the geology and mining sector are: Private partnership, specialized Exploration programs, data processing capability, sector specific geospatial strategy, extraction technology.

Co-Organized by

ALL PANELISTS AND SPEAKERS

- **A.S. Kiran Kumar**
  Member, Space Commission

- **S. K. Sinha**
  Addl Surveyor General, Survey of India

- **Dr. Debpriya Dutta**
  Advisor, DST

- **M. Jayachandran**
  Program Director, TNGIS, Tamil Nadu e-Governance Agency

- **Nilay Nishant**
  Scientist (SE), NESAC, DOS

- **Vinay Kumar**
  Sr. Vice President & CTO, Esri India

- **Rajiv Mishra**
  Chief Technical Advisor, NIUA

- **Mohd Monis Khan**
  Town & Country Planner, TCPO

- **P.V. Rajasekhar**
  Additional Surveyor General, Eastern Zone, Survey of India

- **Dr. Shaily Gandhi**
  Deputy Centre Head, Centre for Applied Geomatics, CEPT

- **Prof. Milap Punia**
  Professor and Chairperson, centre for the study of regional development, JNU

- **Abhyudaya Saxena**
  Head, GIS and data processing division, Aereo

- **Dr. Namita Wahi**
  Founding director of Land Rights initiative & Senior Fellow at the Centre for Policy research

- **Milind Wadodkar**
  Chief Soil Survey Officer, SLUSI

- **Ashish Kumar Jena**
  Joint Secretary cum Joint Special Relief Commissioner, Govt of Odisha

- **Sajeevan G**
  Senior Director, C-DAC

- **Dr. Raj Kumar Khatri**
  Former Additional Chief Secretary and Coordinator

- **Vishnu Chandra**
  Advisor, MoPR & Former DDG NIC

- **Dr. Stutee Gupta**
  Scientist (SF), Rural Development and Watershed Monitoring Division, NRSC

- **Sanjay Chakraborty**
  head Technology, Adani Natural Resources

- **Debkumar Bhattacharyya**
  deputy Director General, GSI

- **Neeraj Gurjar**
  Director Geodetic and Research Branch, SOI

- **Dr. Ashutosh Roul**
  General Manager (Mines), NALCO

- **Dr. Satarupa Kapoor**
  Institutional Business Development, South Asia Region, Trimble Inc.

- **Prof. Chander Kumar Singh**
  Professor and Head, Department of Natural and Applied Sciences, TERI School of Advanced Studies

- **Atul Jindal**
  IFS Retd & Consultant, OFSDP-II

- **Subrat Singh**
  Program Director, Foundation for Ecological Security (FES)

- **G. Varuna Kumar**
  Deputy Surveyor General, SOI

- **Dr. Manish Kale**
  Joint Director, C-DAC

- **Dr. Shivangi Somvanshi**
  Director, GKI, Geospatial World

- **Ruban Jacob**
  Associate Director, GKI, Geospatial World