Minutes of Meeting Geospatial Think Tank Meeting

Date: Wednesday, June 3, 2020
Time: 10:30 – 12:00 hrs.
Venue: Online (Microsoft Teams)

Attended by:	Apologies from:
1. Kiran Kumar 2. Ashok Kumar Singh 3. Dr. K. J. Ramesh 4. Dr. Shailesh Nayak 5. Dr. P. G. Diwakar 6. Lt. Gen. Rajesh Pant 7. Lt. Gen. Girish Kumar 8. Agendra Kumar 9. K.J. Ramesh 10. Munshi M.K. 11. Jagdeesh Rao 12. Arun Bhardwaj 13. Amit Ghosh 14. Vishnu Chandra 15. Anoop Singh 16. Ashwani Kumar Akella 17. Pankaj Mishra 18. Rajan Aiyer 19. Udaya Kumar 20. Vinit Goenka 21. Sanjay Kumar 22. Lt. Gen. Ajay Chandele 23. Megha Datta 24. Anamika Das 25. Prashant Joshi 26. Ananya Narain 27. Shreya Chandola	1. Kamal Kishore 2. Shambhu Singh 3. Subhash Ashutosh 4. Srinibas Patnaik 5. Amit Ghosh 6. Raj Khatri 7. O.P. Agarwal 8. Pratima Joshi 9. Sajid Mukhtar 10. Nikhil Kumar 11. Rajesh Alla 12. Shirishkumar Ravan 13. Kaushik Chakraborty 14. Pramod Kaushik 15. Dr. Shubha Pandey 16. Dr. Mohan Reddy 17. Dr. Debpriya Dutta 18. Dr. Mahak Garg 19. Dr. V. K. Dadhwal 20. Dr. Akhilesh Gupta

Minutes:

Key Points from the Chairman's Opening Address

The National Geospatial and Earth Observation Policy document openly circulated covers most of the aspects. It forms a baseline recommendation document that helps us to take things forward and shows us the way forward. Discuss the deliberate points as it is the appropriate time to take actions since the government is making a significant change. The COVID reset leading to Atmanirbhar Bharat does not refer to pre-1992 India. Atmanirbhar Bharat /Self-reliant India does not refer to isolated India but a stronger, capable and connected India – extending and enhancing the goal of self-development. But a credible and reliable India which is not overtly dependent. Post COVID reset is a good opportunity for expanding the industrial and governance capacity.

Presentation by Sanjay Kumar on the recommendations for Geospatial and Earth Observation Policy

Key points discussed and highlighted by the Chairman and Sanjay Kumar

- Challenges include protective and restrictive policy with multiple regulations.
- 10-15 regulations must be followed which is possible by large enterprises. But the market also includes small and medium scale enterprises.
- Integrated Geospatial and Earth Observation policy – strengthen the IRNSS/NAVIC constellation of satellites and the Earth Observation systems – now is not the time to focus on problems but on strengthening the unavailable capabilities.
- The need is a comprehensive data environment with guidelines or framework (Ministry of Finance in UK is a notable for preparing guidelines in a broader context) whose fundamental tenets are simple, comprehensive and that help to avoid data overlaps and ambiguity – possibly 5m resolution available freely and updated every 6 months.
- A pre-distribution high resolution dataset should be available for commercial use without restriction. SOI foundational data should be available free of cost.
- Bhuvan platform – available to the public at large – open environment.
- Emphasize on moving data to knowledge.
- Transform institutional capacities and educational strategies, democratize policies, and emphasize on making it more participatory. Survey mapping activity should be allowed as a business activity and be permitted to commercial organizations – aligning the skill development with the SOI.
- Executive orders for the SDI require a powerful agency – a common geodetic reference framework.
- A high-level intelligent coordination will provide a push to the PMO – STIAC to make the coordination successful since the stakeholders are large.
- Continuous policy that touches all the segments and multiple set of people is too stringent, but the key is to provide mandated data to all government department – how to make data accessible as a mandate activity requires appropriate recommendations from the Think Tank.

Recommendations from Think Tank Members

- **Vishnu Chandra**:
  - The data[dot]gov[dot]in by the NIC does not have all data that is open or OGC compliant. Services are in the government domain so a [dot]gov account is necessary.
  - Service is not within the public domain. Only e-governance app development is both in the private and public domain.
  - Updating can only happen as part of the workflow – lookup table and geospatial data at the backend is updated.
  - Ground verification and validation of data is a priority and a regular updating system should be developed.

- **Agendra Kumar:**
  - Supportive of a platform with Earth Observation and Remote Sensing data as a web service by the government.
  - Three important areas:
    i) New direction space research and satellite launch, etc.
    ii) Remote Sensing data policy which is a consolidation for private sector, ISRO and some guidelines for SOI and the private sector enterprises.
    iii) Avoid duplication of data and sensitive data must be handled carefully – decide and marked – change the policy from a restrictive to a more open thereby leading to a changed mindset.

- **Lt Gen Girish Kumar:**
  - SOI had no significant role between 2004-2014 – in the meanwhile private companies contributed to mapping – projects such as National Land Records Modernization Programme (NLRMP) and Digital India Land Records Modernization Programme (DILRMP) – constraints and causes of failure and ways to overcome them.
  - Skill development for geospatial activities must not be specific and oriented to a single sector but aligned with the SOI – will help overcome project failures or projects gone into arbitration.
  - Geospatially skilled manpower must have domain knowledge and expertise to overcome data gaps and errors from deliverables of private enterprises – licensing and approval of licenses for individuals should be managed and maintained by a single nodal skill development agency.
- **Rajan Aiyer:**
  - Supportive of skill development – private companies might have geospatial skill gaps so relegating the mapping projects might lead to GIGO.
  - A nodal agency like the SOI maybe assigned the authoritative quality control.

Suggestions for the Sectoral Working Group Members:

Health:

Structure of the Paper:

- Significance of the healthcare sector – COVID scenario containment of disease has hastened the application of geospatial technology.
- Scope of the paper
  - Immunization
  - Disease Surveillance
  - Chronic Disease Prevention and Control

Suggestions:

- Funding on health sector is limited – emphasis on increasing resources by the government
- Development of digital technology led surveillance and management requires setup of a strong digital infrastructure.
- Strategies to build synergies between the geospatial and the health sector is a need of the hour
- Awareness of the use and application of geospatial technologies among the workers of the health sector is also significant.

Land Administration:

Structure of the Paper:

- Components discussed are
  - Land Development
  - Land Governance System
- Scope of Working Group activities
  - Land Governance Paradigm
  - Land Registration and Cadastral mapping – possibilities, challenges, and positioning.
  - State Objectives – three verticals – Land Registration, Land Records, and Records of land rights.
- Evidence based approach and identified other areas of direct impact and linkages.
- Land Cadastre – spatial framework – CORS Network – Geodata model.
- Robust institutional framework backed by technology support – innovation based on modernization of land registration.
- Need for standards focusing more on land registration as well as land and property legislation.

Suggestions:

- Strengthen the legal infrastructure framework and the landuse policy

- Landuse Management strategy – should focus on the Land Evaluation – carefully understand the land and property system – Land is under the cadastral system. The taxation system has changed so land is not a priority of the taxation system.
- Proper seamless land cadastral map with defined areas, dimension, location, etc. is a requirement
- Emphasis on consolidation of the land rights, land and property taxation and land evaluation.
- Resume modernization component in the organized survey of land and property – segregated for use.
- Align the Land Administration system under the SDGs. Such that Land Administration – Urban and Agrarian.
- Focus on the new area – land and property – efficient land administration system with respect to property market with respect to revenue, development, and influence on economy.
- Scope – needs to be planned and organized as it is not possible to sort out everything – must be in phases and identify fixed targets, identify constraining factors and hurdles.
- Focus on Land facets of cadastral mapping – gather from past experiences of projects handled and major constraints. Create a consolidated document for way forward.
- As part of cadastral mapping emphasize on complete definition of boundary – importance of transaction and location approximation – possibly define scale of geospatial activities. How can planning, policy making and evaluation flourish under a coarse resolution boundary map/land parcel map that is interoperable and its possibilities.
- Original land parcel boundary maps do not include real world features and is a skeletal record – real world features should be integrated with the modernized parcel boundary maps and can be a foundation geodetic boundary layer/parcel map applicable to all sectors.
- Relevance to land parcels by defining the ownership of the parcels – possible discussion for redefining guidelines for land parcel ownership.

Disaster Management:

Structure of the Paper:

- Disaster and management are sensitive to time.
- Preliminary research on the use of Geospatial Technology across each of the six dimensions:
  - Preparedness
  - Prediction & Warning
  - Prevention and Mitigation
  - Relief
  - Response
  - Recovery, Rehabilitation

Suggestions:

- Addition of a 7th section – Disaster Communication – emphasize on GAGAN/NAVIC, HAM radio operators – new technology as part of framework.
- Recommended to include drone companies in the recovery and response dimensions.

Final Summary

1. Decision on the timeline to complete the recommendation framework – weekend June 8 to 10th all specific points for the recommendations to be consolidated and circulated back.
2. Think Tank members to incorporate all recommendations effectively based on experiences of the past.
3. Geospatial technology application for data accuracy and linkages to make data available to all – while defining the major constraints – keeping in mind a wholistic approach.
4. Prioritization is to develop a quadrant model of records – since policy formulation is time intensive – the Think Tank should make the most of the current time and convey the recommendations to the PMO-STIAC.

Sectoral Working Groups Presented (in blue)

Sectors	*Geospatial Media Team*	*Think Tank Members*
Agriculture	Anshita Rawat Ruben Jacob	Dr. P G Diwakar Dr. V K Dadhwal
Supply Chain and Logistics	Sarah Hisham Tarun Kumar	Nikhil Kumar Srinibas Pattnaik
Water Resource Management	Tuba Zahra Amit Roshan	Dr. Shailesh Nayak Dr. K J Ramesh Arun Bhardwaj
Urban Transformation and Smart Cities	Kasiranjan Mahalingam Titas Roy	Agendra Kumar Pratima Joshi
Ecology and Environment	Megha Datta Manish Singh	Dr. Debpriya Dutta Jagdeesh Rao
Healthcare	Shreya Chandola Neeraj Budhari	Vishnu Chandra Raj Kumar Khatri
Land Administration	Abhishek Kotangale Anamika Das	Pramod Kaushik Lt. Gen. Girish Kumar Rajesh Alla
Disaster Management	Ananya Narain Prashant Joshi	Kamal Kishore Lt Gen Rajesh Pant Lt Gen AKS Chandele
Transport Infrastructure	Deepali Roy Siddharth Verma	O P Agarwal Kaushik Chakraborty Rajan Aiyer Amit Ghosh
Energy Manufacturing		