

# Geospatial चौपाल 2019

**21-22 April 2019**

Welcome Heritage Ram Ganga Resort, Jim Corbett Park, Uttaranchal

## National Think Tank on Geospatial Strategy for New India





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21-22 April 2019 | Ram Ganga Resort, Jim Corbett Park, Uttarakhand

## National Think Tank on Geospatial Strategy for New India

As the nation prepares to celebrate its 75th year of independence with the vision of building a 'New India', a comprehensive, cohesive, coordinated, and conducive national geospatial strategy, encompassing shared vision and values of public authorities, private sector enterprises, academic institutions and users, would lay the foundation for creating a robust geospatial industry and innovation eco-system. This will play a critical role in planning, implementation and monitoring of key national programs and projects, which will enhance productivity and cost effectiveness, leading India into the next phase of transformative journey. Geospatial Media takes the responsibility to constitute a Non-Executive National Think Tank on Geospatial Strategy for New India for a period of 2019 to 2022 which was recommended during meeting in Jim Corbett Park in March 2018. Details:

### Terms of Reference:

Non-Executive National Think Tank on Geospatial Strategy for New India

**Type of Entity:** Non-Executive and Volunteer Group of Leaders

**Tenure:** Tenure of the Think Tank will be 4 years; from 2019 to 2022

**Membership Criterion:** Professionals having credible background and willingness to contribute on voluntary basis

**Funding Mechanism:** Geospatial Media will allocate Rs. 10 lakh INR annually towards organizing meetings and secretarial support

**Meetings:** Think Tank will meet at least twice a year

**Ethics and Values:** Think Tank shall work together with a common vision of serving the national agenda while preserving integrity and intellectual propriety of its members

## Agenda & Outline

### Sunday, 21 April 2019

12:00 hrs: Arrival of Guests at Ram Ganga Resort

13:30 hrs: Welcome Lunch

#### Opening Session

14:30 hrs: Opening Note & Introductions: **Sanjay Kumar**, CEO, Geospatial Media

14:40 hrs: Keynote Address: **A S Kiran Kumar**, Former Chairman, Indian Space Research Organisation

14:55 hrs: Indian Geospatial Economy: **Prashant Joshi**, Vice President, Geospatial Media and **Anamika Das**, Vice President, Geospatial Media

#### 1510 – 1550: Geospatial Information Infrastructure and Industrial Development Strategy

##### Moderator

**A S Kiran Kumar**, Former Chairman, Indian Space Research Organisation

##### Perspective by

**Lt General Girish Kumar**, VSM, Surveyor General, Survey of India  
**Lt. Gen. Rajesh Pant (Retd.)**, Chief, National Cyber Security Coordinator

**Vinit Goenka**, Member-Governing Council-CRIS, Ministry of Railways

**Kaushik Chakraborty**, Vice President SE Asia & India, Bentley Systems

15:50 hrs: Open Discussion

16:30 hrs: Tea Break

#### 1645 – 1800: Geospatial Technology Adoption

##### Moderator

**Agendra Kumar**, President, esri India

##### Perspectives by

**Lt Gen Anil Kapoor**, DGIS

**Kamal Kishore**, Member, NDMA

**Shambhu Singh**, Additional Secretary Ministry of Road and Transport

**Jagdeesh Rao Puppala**, Chief Executive, Foundation for Ecological Security

**Dr. Rajkumar Khatri**, I.A.S, Principal Secretary to Govt of Karnataka, Revenue Department

18:00 hrs: Open Discussion

19:00 hrs: Reception and Cultural Program

### Monday, 22 April 2018

08:30 – 9:30 hrs: Breakfast

09:30 – 11:00 hrs: National Geospatial Information Infrastructure, Policies –Mandate, Composition, Architecture, Process and Network  
**Moderator**

**Dr. VK Dhadwal**, Director, Indian Institute of Space Science & Technology

##### Perspective by

**Dr Subhash Ashutosh**, Director General, Forest Survey of India

**Dr P G Diwakar**, Director - EOS, ISRO\*

**Anoop Singh**, IFS, Special Secretary – IT, Government of Andhra Pradesh

**Lt Gen (Dr) AKS Chande** PVSM, AVSM (Retd)  
President, Defence Security and Public Safety, Geospatial Media

#### 10:10 hrs: Open Discussion

11:00 – 11:30 hrs: Tea Break

11:30-13:00 hrs: Extending utilization of geospatial information in transformative New India 2022 through Industrialization and Commercialization

##### Moderator

**Amit Ghosh**, Joint Secretary (Highways), Ministry of Road Transport and Highways

##### Perspective by

**Dr. K J Ramesh**, Director General, India, Meteorological Department

**Pramod Kaushik**, President, Hexagon India

**Srinibas Patnaik**, Senior Director - South Asia, DigitalGlobe

12:10 hrs: Open Discussion

13:30 -14:30 hrs: Conclusion and Recommendations

13:30-14:30 hrs: Lunch

14:30 hrs: Departure

# Geospatial चौपाल 2018

17-18 March 2018 | Ram Ganga Resort, Jim Corbett Park, Uttarakhand

## Attendees

- **Dr. K J Ramesh**, Director General, India Meteorological Department
- **Maj Gen Girish Kumar**, Surveyor General of India, Survey of India
- **Rajan Aiyer**, Managing Director, Trimble
- **Rajesh Alla**, CEO, IIC Technologies
- **Vinit Goenka**, Member Taskforce (IT), Ministry of Road Transport & Highways Member Governing Council, Centre for Railway Information System
- **Manosi Lahiri**, Founder and CEO, ML Infomap
- **Kiran Kumar**, Former Chairman, ISRO
- **Sanjaya Das**, Additional Member, Railway Board
- **Srinibas Pattnaik**, DigitalGlobe
- **Pramod Kaushik**, Hexagon India
- **Nikhil Kumar**, Trimble
- Geospatial Media team –  
**Sanjay Kumar, Lt Gen AKS Chandele, Anusuya Datta, Prashant Joshi, Megha Datta**

## Recommendations

### Value Impact in New India

- It was recommended that some credible agency should measure and present the size, value and impact of geospatial technologies at a national level.

### Think Tank: Bringing cohesiveness to Geospatial sector

- One of the key recommendation of the group was to create a think-tank for geospatial sector comprising of representatives from different expertise, segments and specialties. This think tank should:
  - > Create a roadmap for service level adoption of the technology
  - > Prepare policy guidance material by synthesizing the available 14 policies impacting geospatial industry into one comprehensive national geospatial policy
  - > Write a document on sectoral impact of geospatial information which gets updated year-on-year basis, showcasing success stories
  - > Help start-ups by creating innovation hubs
  - > Sector skill council

### Empowering National Geospatial Agency to create social and economic value

Several of the recommendations that emerged from the session were around the changes that can be brought about in workflow and processes in India's national geospatial agency, like Survey of India, in order to strengthen industrial output and facilitate use of geospatial technologies at various levels. These recommendations

will also meet the need for analytics-ready data for long-term developmental goals while balancing security concerns.

- Different levels of restrictions for making spatial data available, may be considered:
  - > **Category 1:** G2G/Restricted – access only to specified approved users, except when specially permitted by government
  - > **Category 2:** G2G/Unrestricted – All other data apart from category 1 becomes open to government users
  - > **Category 3:** G2B – Some data can be made available on payment basis with some restrictions to businesses
  - > **Category 4:** G2B & G2C – Low resolution data may be made free and open to all businesses and citizens
- Single window data clearance system
- National CORS network and Geoid model
- Provision of certified boundaries of India for the industry and businesses
- Time bound approval
- Compliance manual for the industry to follow, clearly stating who clears what

### Industry and Users: Supporting Geospatial Growth Strategy

- Recommendations for the private geospatial industry and users revolved around documenting clearly defined and articulated needs and requirements from different stakeholders

- There is a felt need to educate and build capacity of users in order for them to better understand use and application of the technology, make informed decisions and be able to choose optimally the specific technology that aids their work. Partnerships and collaborations with industry who can work as knowledge partners for users was suggested
- In line with this thought, the group also recommends user organisations to consider investing in developing in-house geospatial teams that will enable them to implement geospatial solutions in the right and sustainable manner

### Capacity Development

- Referring to the Report on National Task Force on Geospatial Education prepared under the Chairmanship of Dr. K Kasturirangan by Planning Commission in 2013, it was discussed that derivatives of this report may be implemented, as the report was developed with due discussions with the industry at that time from primary to post graduate levels
- Geospatial industry needs to develop a Sector Skills Council, under the aegis of Association of Geospatial Industries (AGI) that can provide certificate courses for various geospatial technologies and its applications. The accreditation of these courses can be done by Survey of India, as the nodal ministry
- Certified surveyors may also be empaneled by AGI

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## Action taken on the Recommendations

### Value Impact in New India

- Geospatial Media in partnership with the industry released the Indian Geospatial Economy Report that provides an in-depth understanding of the Indian Geospatial scenario. The report presents a quantitative assessment of the Indian geospatial economy, comprising a thorough analysis of the domestic geospatial market, including exports, current employment scenario, and government spending on key national geospatial agencies, resource institutions, and key initiatives and schemes. Some of the key findings of the report include:
  - > The total worth of the geospatial economy in India during FY 2017-18 is estimated to be approximately INR 20,629 cr and providing employment to 2,51,300.
  - > The domestic market in India during FY 2017-18 is estimated to be approximately INR 7,679 crore and is projected to grow at nearly 13.8% CAGR to reach INR 11,306 crore in 2021 (IGE-18).
  - > The IGE-18 report finds that in FY 2017-18, the Indian geospatial market space was dominated by GNSS & Positioning and GIS/Spatial Analytics technology segments with a market share of 72.8% and 23.1% of the total market, respectively.
  - > Among the top application areas, during FY 2017-18, Infrastructure, Utilities and Urban Development sectors generated maximum revenue for geospatial technologies, with an estimated market share of nearly 22.1%, 15.7% and 13.9%, respectively. Other leading application areas include Mining, Oil & Gas, Education and Research, Water Resources and Irrigation and Defense & Internal Security.
  - > India's geospatial industry is currently focused on offering services. It constituted nearly 74.4% of the total market in FY 2017-18, followed by hardware at 17.0%. Solution, which currently form a

meager 2.3% of the total market revenue, is the fastest growing segment as end-users gradually move away from piecemeal offerings and opt for end-to-end solutions instead.

### Empowering National Geospatial Agency to create social and economic value

- Work has commenced on Continuous Operating Reference Stations (CORS) and Geodetic framework, Geodetic Infrastructure of the country comprising CORS Network and Geoid Model is pivotal for all infrastructure projects in India. Continuous Operating Reference Stations (CORS) Network establishment for state of Uttar Pradesh and part of Uttarakhand is in final stages. This work is done under National Hydrography Project for generation of High Resolution DEM and GIS Data in these states. Further, CORS Network for other states like Karnataka, Haryana and Maharashtra is also at advanced stages as the financial evaluation of the tenders of these states is under progress.

The Geoid Model development under NHP, NMCG and Large Scale Mapping (LSM) with state governments of projects with State Government of Haryana, Karnataka and Maharashtra of 10 cm accuracy is being carried out by Sol. Modernisation and Upgradation of these key Geodetic Infrastructures will facilitate high accurate planimetric and height positions in surveying and mapping projects.

### Think Tank: Bringing cohesiveness to Geospatial sector

- Geospatial Media took the initiative to form a Non-Executive National Think Tank on Geospatial Strategy for New India. The Think Tank comprises of domain experts, geospatial industry leaders, state and central government agency heads, leadership from development sector etc. The Think Tank will act as an informal advisor and policy advocates to various government agencies and as outlined by the

Chauपाल 2018 recommendations, will be responsible for:

- > Creating a roadmap for service level adoption of the technology
- > Preparing policy guidance material by synthesizing the available policies impacting geospatial industry into one comprehensive national geospatial policy
- > Writing a document on sectoral impact of geospatial information which gets updated year-on-year basis, showcasing success stories
- > Helping start-ups by creating innovation hubs
- > Promoting sector skill council

### Industry and Users: Supporting Geospatial Growth Strategy

- Survey of India has taken the initiative to partner with Government and Private sectors to collaborate on data generation and updation. An example is the partnership Sol established with TomTom a data company, where they have agreed to provide the Sol mobile application to TomTom for data collection as per TomTom requirements in Sol server. Sol will carry out the data vetting through Ministry of Defence as per Government guidelines and cleared data for open usage will be shared to TomTom for their usage.

### Capacity Development

- The Ministry of Skill Development is working on a framework to prepare Job roles and certification of qualified courses for identified Job roles in the Geospatial sector. Certification of Land Surveyors job role will eventually lead to licensed surveyors in India in due course. This initiative is in collaboration with Association of Geospatial Industries (AGI) and Sol. Sol has also prepared an Act for such Licensing.