



## 2nd World Geospatial Information Congress

**For Prelims:** UN World Geospatial Information Congress,

**For Mains:** Geospatial sector of India - Challenges and Opportunities, Government Policies & Interventions

### Why in News?

Recently, 2<sup>nd</sup> United Nations World Geospatial Information Congress was inaugurated in Hyderabad under the theme '**Geo-Enabling the Global Village: No one should be left behind**'.

- India's geospatial economy is expected to cross Rs. 63,100 crores by 2025 at a growth rate of 12.8%.

### What is the UN World Geospatial Information Congress?

- The first United Nations World Geospatial Information Congress was held in Deqing, Zhejiang Province, China in 2018.
- The United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) **organizes the United Nations World Geospatial Information Congress (UNWGIC) every four years.**
- The objectives are **enhancing international collaboration** among the Member States and relevant stakeholders in Geospatial information management and capacities.

### What is Geospatial Technology?

- **About:**
  - Geospatial technology is a term used to **describe the range of modern tools contributing** to the geographic mapping and analysis of the Earth and human societies.
    - The term 'geospatial' refers to a collection of technologies that help to collect, analyse, store, manage, distribute, integrate, and present geographic information.
  - Broadly, it consists of the following technologies:
    - **[Remote Sensing](#)**
    - **[GIS \(Geographic Information System\)](#)**
    - **[GNSS \(Global Navigation Satellite System\)](#)**
    - **Survey**
    - **[3D modelling](#)**
- **Significance:**
  - **Employment Generation:**
    - It will provide employment to more than 10 lakh people mainly through Geospatial start-ups in India.
  - **Socio-Economic Development:**
    - Geospatial technology has become one of the key enablers in socio-economic development by **enhancing productivity, ensuring sustainable infrastructure**

- **planning, effective administration, and aiding the farm sector.**
- **Other Advantages:**
  - Other advantages include **sustainable urban development, managing and mitigating disasters, tracking the impact of [climate change](#)**, forest management, water management, stopping **[desertification](#)** and **[food security](#)**.
  - Intelligent maps and models can be created using geospatial technology.
    - It can be used to reveal spatial patterns hidden in large amounts of data that are complex to access collectively through mapping.
  - Geospatial technology has been driving inclusion and progress in national development projects like **[SVAMITVA](#)**, **[PM Gati Shakti master plan](#)**, **[Jan Dhan-Aadhaar-Mobile \(JAM\) Trinity](#)** etc.

## What are the Challenges related to the Sector in India?

- **Absence of Sizeable Market:**
  - Among the most prominent hurdles is the **absence of a sizable geospatial market in India.**
  - There is no demand for geospatial services and products on a scale linked to India's potential and size.
    - This lack of demand is mainly a consequence of the lack of awareness among potential users in government and private sectors.
- **Lack of Skilled Manpower:**
  - The other hurdle has been the **lack of skilled manpower across the entire pyramid.**
  - Though India has many who are trained in geospatial this is mostly either through a master's level programme or on-job training.
    - Unlike the West, India lacks a strata of core professionals who understand geospatial end-to-end.
- **Unavailability of Data:**
  - The unavailability of foundation data, especially at high-resolution, is also a constraint.
  - The lack of clarity on data sharing and collaboration prevents co-creation and asset maximisation.
- **No-Ready-to-use Solutions:**
  - Additionally, there are still no ready-to-use solutions especially built to solve the problems of India.

## What are the Related Initiatives?

- **Google Street View** is launched in ten cities of India under the **[Guidelines of the National Geospatial Policy \(NGP\), 2021](#)**.
- The **[Survey of India](#)** has developed a **web Geographic Information System (GIS) called Sarthi**. It will help users in creating applications for geospatial data visualisation, manipulation, and analysis without a lot of resources at their end.
- The online maps portal of Survey of India has over 4,000 maps with national, state, district, and tehsil level data that have been indexed for end users.
- National Atlas and Thematic Mapping Organization (NATMO) has released thematic maps such as the cultural map of India, the climactic map, or the economic map, on Manচিতran portal.
  - NATMO, functioning as a subordinate department under the Department of Science & Technology, Ministry of Science & Technology, with its headquarters at Kolkata.
- **[Bhuvan](#)**, is the national Geo-portal developed and hosted by ISRO comprising Geo Spatial Data, Services and Tools for Analysis.
- The Association of Geospatial Industries has released a report titled **["Potential of Geospatial Technologies for the Water Sector in India"](#)**.

## Way Forward

- India needs to be aggressive to make a leapfrog; **special attention is required as far as the geospatial sector is concerned.**
- There is a need to **establish a geo-portal to make all public-funded data accessible** through

data as a service model, with no or nominal charge.

- Solution developers and **start-ups** should be engaged to build solution templates for various business processes across departments.

### UPSC Civil Services Examination Previous Year Question (PYQ)

**Q. In the context of space technology, what is “Bhuvan”, recently in the news? (2010)**

- (a)** A mini satellite launched by ISRO for promoting the distance education in India
- (b)** The name given to the next Moon Impact Probe, for Chandrayan-II
- (c)** A geoportal of ISRO with 3D imaging capabilities of India
- (d)** A space telescope developed by India

**Ans: (c)**

**Source: PIB**

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