



# Bhuvan Portal

## Why in News

Recently, [Indian Space Research Organisation \(ISRO\)](#) and **MapmyIndia** have partnered to come up with an **indigenous geospatial portal** known as '**Bhuvan**'.

- This is in line with the above discussed new **guidelines for the Geo-Spatial Sector** in India.

## Key Points

### ▪ Geospatial Portal (Bhuvan):

- It is a type of web portal **used to find and access geographic information** (geospatial information) **and associated geographic services** (display, editing, analysis, etc.) **via the Internet.**

### ▪ The Collaboration:

- **MapmyIndia's database** will be connected with **ISRO's high-end satellite catalogue and earth observation data**, which it generates through a constellation of its satellites.
- The collaboration will enable them to jointly identify and build a holistic **geospatial portal** utilising earth observation datasets, [Navigation in Indian Constellation \(NavIC\)](#), Web Services and **APIs** (application programming interface) available in MapmyIndia.

- **API is a software intermediary** that allows two applications to talk to each other.
- It is a computing interface that defines **interactions between multiple software intermediaries**

### ▪ Significance of the Portal:

#### ◦ True Maps:

- Its services will **reflect the true borders of the country** as per the information available from Government of India.

#### ◦ Protects Privacy:

- By using MapmyIndia maps and applications instead of the foreign map apps, **users can better protect their privacy.**
- As foreign search engines and companies claim to offer 'free' maps, but in reality, they make money by targeting the same users with advertising, by **invading the user's privacy and auctioning private location and movement data.** However there is no such provision of advertisement in MapmyIndia.

- **Atma Nirbhar Bharat:** Being an Indian platform, it is well aligned with the government's Mission of [Atma Nirbhar Bharat](#).

### ▪ MapmyIndia:

#### ◦ About:

- It is an **Indian technology company** that builds digital map data, telematics

- services, Global Information System and **Artificial Intelligence** services.
- It is an alternative to **Google Map**, which covers as many as 7.5 lakh Indian villages and 7,500 cities.
- **Database:**
  - The database has a road network connected by 63 lakh km and the organisation claims to consist of the most exhaustive digital map database of the country.
- **Use:**
  - Almost all the vehicle manufacturers in India who come with built-in navigation systems are using MapmyIndia.
- **Other Products:**
  - App called '**Move**' that provides **real-time traffic updates and navigation**.

## Navigation in Indian Constellation (NavIC)

### ▪ About:

- It is an **Indian Regional Navigation Satellite System (IRNSS)**, developed by the Indian Space Research Organization (ISRO).
  - IRNSS **consists of eight satellites**, three satellites in geostationary orbit and five satellites in geosynchronous orbit.
- It works just like the established and popular **U.S. Global Positioning System (GPS)** but within a 1,500-km radius over the sub-continent.
- It has been **certified by the 3<sup>rd</sup> Generation Partnership Project (3GPP)**, a **global body for coordinating mobile telephony standards**.

### ▪ Objective:

- The main objective is to **provide reliable position, navigation and timing services** over India and its neighbourhood.

### ▪ Potential Uses:

- Terrestrial, aerial and marine navigation;
- Disaster management;
- Vehicle tracking and fleet management (especially for mining and transportation sector);
- Integration with mobile phones;
- Precise timing (as for ATMs and power grids);
- Mapping and geodetic data capture.

### ▪ Other Global Navigational Systems:

- **BeiDou/BDS** (China)
- **Galileo** (Europe)
- **GLONASS** (Russia)
- **Quasi-Zenith Satellite System (QZSS)** (Japan)

**Source:IE**