

Survey of India [UPSC Notes]

Survey of India is the **national survey and mapping organization** of India. It is featured regularly in the news as part of various surveying and mapping programs of the government. Hence, it is important to know the basics of the Survey of India, which is also one of the oldest institutions in the country. Read on to know all about the Survey of India for the [UPSC exam](#).

Survey of India

Survey of India is the oldest scientific department of the Indian government. It was established in 1767 to help consolidate the Indian territories of the British East India Company .

- It is India's principal mapping agency and functions under the Department of Science and Technology (DST), Ministry of Science and Technology, Government of India.
- Its chief responsibility is to ensure that India's domain is explored and mapped appropriately.
- It also provides base maps for expeditious and integrated development of the country by ensuring that all resources contribute to the progress, security and prosperity of the nation for the present and the future.
- Survey of India is headquartered in Dehradun, Uttarakhand.
- It is headed by the **Surveyor-General of India**.
- Survey of India draws its members from the Survey of India Service cadre of the Indian civil services and army officers from the Indian Army Corps of Engineers.
- Starting with five directorates of the SOI, currently, there are 18 directorates spread all over India to provide the basic map coverage for the needs of the country.

Survey of India Mandate

The National Map Policy 2005 mandates the Survey to produce, maintain and disseminate the topographic map database of India. The mandate of the SOI includes the following:

1. Providing, maintaining and allowing access and making available the **National Topographic Database (NTDB)** that conforms to national standards. (Through Web Services, Geospatial services, Web Portals, Mobile Application and dissemination of Printed/Digital maps).
2. Promoting the use of geospatial knowledge and intelligence through partnerships and other mechanisms by all sections of the society and work towards a knowledge-based society.

Other Responsibilities of Survey of India

- All Geodetic Control (Horizontal and Vertical) and Geodetic and Geophysical surveys.
- All Topographical Control, Surveys and Mapping within India.
- Surveys for Developmental Projects.
- Mapping and Production of Geographical Maps and Aeronautical Charts.

- Survey and Mapping of special maps.
- Survey of Forests, Cantonments, large scale city surveys, guide maps, cadastral surveys, etc.
- Spellings of Geographical names.
- Training of officers and staff required for the Department, trainees from Central Government Departments and States and trainees from Foreign Countries as are sponsored by the Government of India.
- Demarcation of the External Boundaries of the Republic of India, their depiction on maps published in the country and also advice on the demarcation of inter-state boundaries.
- Prediction of tides at 44 ports including 14 foreign ports and publication of Tide Tables one year in advance to support navigational activities.
- Research and Development in Cartography, Printing, Geodesy, Photogrammetry, Topographical Surveys and Indigenisation.
- Scrutiny and Certification of external boundaries of India and Coastline on maps published by other agencies including private publishers.

Note:-

- Geodesy – The science of accurately measuring and understanding the Earth's geometric shape, orientation in space and gravity field.
- Photogrammetry – The science of making measurements out of photographs.

Survey of India – Organisation

The following image will show you the various zones and institutes that come under the Survey of India.

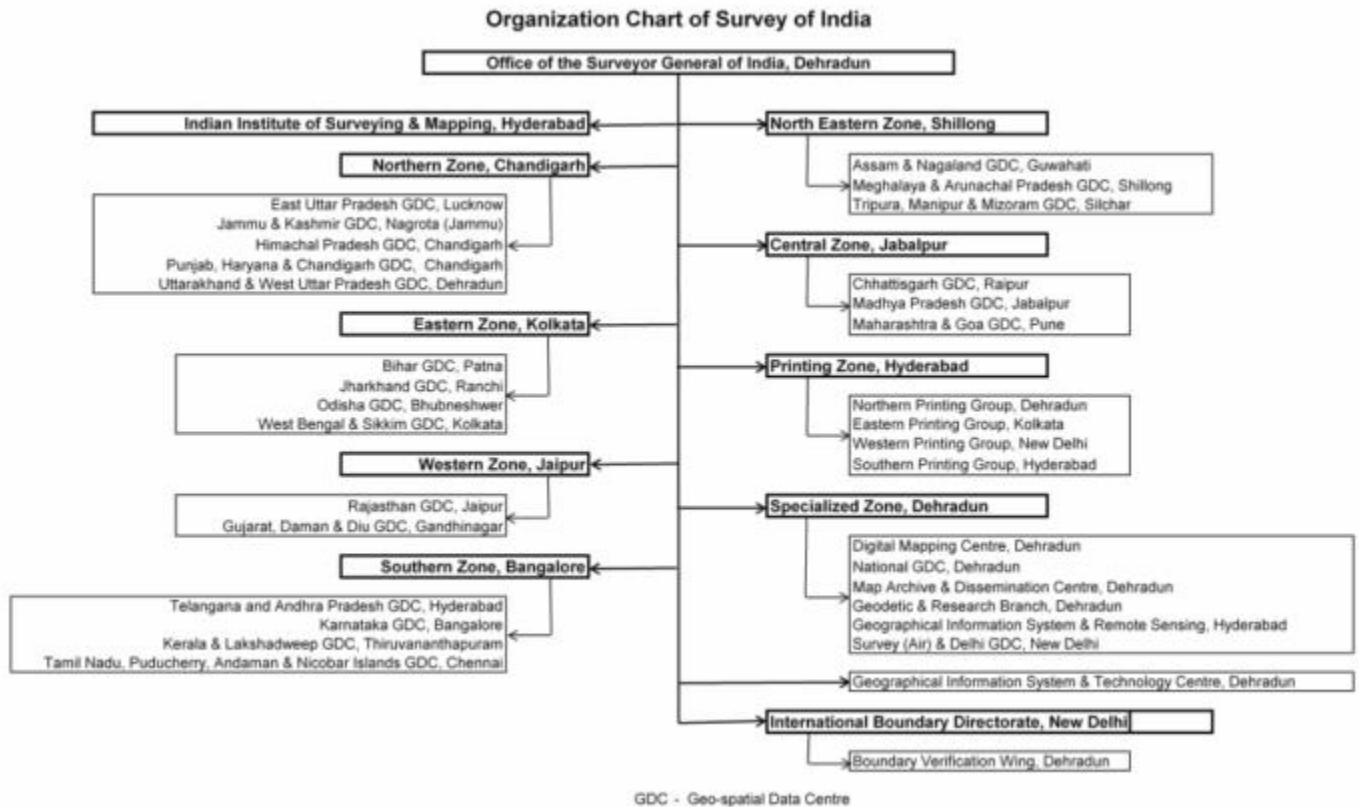


Image source: <https://surveyofindia.gov.in/>

Survey of India Projects

The Survey of India renders service to the nation by taking part in various government schemes with respect to matters of surveying and mapping.

- Under the National Hydrology Project, SOI provides the National Digital Elevation Model (DEM) for improved flood hazard mapping and other planning purposes; and conducts local high resolution surveys (such as LIDAR) for flood prone areas to support flood risk mapping and management action plans.
- SOI is the technology implementation agency for the SVAMITVA scheme.
- Under the National Mission For Clean Ganga (NMCG), SOI is involved in generating High Resolution Digital Elevation Model (DEM).
- Sahyog App – SOI has developed the Sahyog App with which users can voluntarily support and contribute in preparing, updating and enriching the national database of the country.