

# Geological Survey of India (GSI)

March 16, 2021

**In news:** GSI has been unable to solve the mystery behind the explosions in the waters of Ujjain's Kshipra river

## About Geological Survey of India (GSI)

- **It is a scientific agency of India**
- **Formation: 1851**
- **Ministry:** Presently, Geological Survey of India is an attached office to the **Ministry of Mines.**
- It is one of the oldest of such organisations in the world
- It is the second oldest survey in India after Survey of India (founded in 1767), for conducting geological surveys and studies of India

## Evolution of Geological Survey

- The beginning of geological investigation in India was in the early part of the nineteenth century. A few amateur geologists associated with the Survey of India and Army initiated geological studies in the country.
- H.W. Voysey (1818-1823) of the Great Trigonometric Survey made the first Geological Map of Hyderabad region along with a detailed report.
- In 1837 a committee for "The Investigation of Coal and Mineral Resources" was set up.
- The Secretary of the Committee John McClelland made the appointment of the first professional geologist.
- D. H. Williams was the first Geological Surveyor

appointed by the East India Company in 1846.

- **John McClelland for the first time used the term Geological Survey of India in his report in 1848.** He designated himself as officiating Surveyor, Geological Survey till 1st April 1850.

- **The Geological Survey of India (GSI) was set up in 1851 primarily to find coal deposits for the Railways.**
- **The arrival of Sir Thomas Oldham, Professor of Geology at Trinity College Dublin and the Chief of Irish Geological Survey at Calcutta on 4th March 1851, marked the beginning of the continuous period of the Geological Survey of India.**
- **1951 M. S. Krishnan becomes the first Indian to be a Director of the Geological survey of India**

### **Missions for GSI**

#### **Mission I: Baseline Geoscience, Data Collection**

- Ground and Marine Surveys
- Remote Sensing and Aerial Surveys

#### **Mission II: Natural Resource Assessment**

- Natural Mineral Resource Assessment
- Natural Energy Mineral Resources

#### **Mission III: Geoinformatics**

- Data Repository and Management, etc
- Publication and Information, Library
- Map, Geoinformatics and Data Integration

#### **Mission IV: Multidisciplinary Geosciences**

- Geotechnical and Geohazards Management
- Climate Change and Ecosystems, etc
- Fundamental Geosciences and Research

## **Mission V: Training And Capacity Building**

### **Functions**

The main functions of GSI relate to creation and updation of national geoscientific information and mineral resource assessment. These objectives are achieved through ground surveys, air-borne and marine surveys, mineral prospecting and investigations, multi-disciplinary geoscientific, geo-technical, geo-environmental and natural hazards studies, glaciology, seismotectonic study, and carrying out fundamental research