

GOVERNMENT OF INDIA
MINISTRY OF MINES
LOK SABHA
UNSTARRED QUESTION NO. 2855
ANSWERED ON 20.12.2023

GSI SURVEY

2855. SHRI MARGANI BHARAT:

Will the Minister of MINES be pleased to state:

(a) the average time taken by the Geological Survey of India (GSI) in completing field survey and submission of reports on potential mineral resource deposits in the country;

(b) whether the Government has taken any steps to reduce this time period;

(c) if so, the details thereof and if not, the reasons therefor;

(d) whether the Government has invested in any latest technologies for expediting field surveys and reports on potential mineral resource deposits by GSI; and

(e) if so, the details thereof and if not, the reasons therefor?

ANSWER

THE MINISTER OF MINES, COAL AND PARLIAMENTARY AFFAIRS
(SHRI PRALHAD JOSHI)

(a): As per the annual field season program, field survey and preparation of reports normally takes 18 months, out of which 12 months are required for completion of field survey and the next 6 months for writing/ finalization of the report before it is circulated. However, for some of the projects, this time duration may be more than 18 months depending upon the nature and quantum of work.

(b) & (c): Yes, Sir. GSI has taken a number of steps to finalize the resource bearing reports at the earliest which are summarized below-

- Sufficient budget grants especially in the mineral exploration head allotted to all regions/missions of GSI for execution of field projects.
- To achieve the drilling target, empanelled outsourced drilling agencies are deployed for certain exploration projects in addition to in-house drilling capacity. Drilling activities are initiated on priority from the beginning of Field Season.
- To expedite sample analysis, outsourcing is carried out through reputed laboratories as per requirement in addition to in-house capacity.
- For timely execution of projects, field vehicles are outsourced in addition to in-house capacity.
- The laboratories are being modernized with various state-of-the-art instruments for precise and quick analysis. Various modern software are also being used for quick and precise analysis of field data.
- The concerned State Governments are intimated to render all possible support for execution of field projects and field officers of GSI are instructed to

coordinate with local administration to resolve any local issues. Necessary formalities for getting permission for exploration from various authorities are taken before initiation of the project.

- Constant monitoring of the projects at various levels is carried out to ensure proper and timely completion of the project.

(d) & (e): Yes, Sir. The following technology initiatives have been adopted for expediting field surveys and reports on potential mineral resource deposits by GSI:

i. Generation of baseline geoscience data- GSI is generating almost all types of baseline geoscience data e.g. geological, geochemical, and geophysical pan India which are crucial for effective planning of mineral exploration. GSI has targeted to complete National Geochemical and Geophysical mapping of the accessible part of the country on priority by involving in-house resources as well as through outsourcing using the National Mineral Exploration Trust (NMET) fund.

ii. Aerial Survey: GSI is executing the project “National Aero-Geophysical Mapping Programme (NAGMP)” to acquire aero-geophysical data over the Obvious Geological Potential areas (7.78 lakh sq km) through outsourcing using NMET fund.

iii. Remote Sensing aided Survey: GSI is carrying out delineation of alteration/mineralization zone using spectral mapping algorithms. Recently, GSI has completed acquisition of AVIRIS NG data in collaboration with NASA and ISRO in certain potential areas in the country. GSI has initiated surface mineral mapping using ASTER multispectral remote sensing data to generate alteration zone /mineral mapping.

iv. Regional Mineral Targeting (RMT): GSI has introduced RMT program to gain insight into the process of finding mineral deposits on a regional scale by synthesis & collation of surface and subsurface data followed by fieldwork.

v. Project ‘Uncover’ India: Given the rapid depletion of surface/near-surface deposits, there is a paradigm shift in thrust to probe deep-seated deposits under “Project Uncover (India)” in two transects, in collaboration with Geoscience Australia (GA).

vi. Necessary steps have been taken to increase the depth of exploratory drilling in G3 & G2 stage exploration projects from FS 2020-21 for non-bulk minerals depending on the potential of mineralized zones. For fast drilling, GSI is mostly utilizing hydrostatics rigs in mineral exploration projects.

vii. National Geoscience Data Repository (NGDR): GSI is setting up the National Geoscience Data Repository (NGDR) through outsourcing using NMET fund for the benefit of all stakeholders wherein all geoscientific data will be made available on one platform.

viii. Modernization Programme: GSI has been modernizing its laboratories by procuring high-end machinery and equipment to improve its capabilities in generating vital geoscience data and their processing and interpretation.
