GOVERNMENT OF INDIA
MINISTRY OF MINES
RAJYA SABHA
UNSTARRED QUESTION NO.1535
TO BE ANSWERED ON THE 11th MARCH, 2015

SATELLITE SURVEY AND AERIAL PHOTOGRAPHY FOR IDENTIFICATION OF MINES

1535. SHRI RAMDAS ATHAWALE:

Will the Minister of MINES be pleased to state:

(a) whether satellite survey and aerial photography are being used for identification and exploration of certain minerals in the country;
(b) if so, the details thereof;
(c) the State-wise and location-wise details of minerals explored so far especially in the state of Maharashtra and other backward and tribal areas; and
(d) whether Government proposes to use this technology to search mineral mines in the country?

A N S W E R

MINISTER OF STATE FOR STEEL AND MINES
(SHRI VISHNU DEO SAI)

(a) to (c): Yes, Geological Survey of India [GSI], an attached office of Ministry of Mines, is using remote sensing satellite (IRS-Indian Remote Sensing Satellite) data and aerial photographs for delineation of target areas for mineralized zones in different parts of the country. The State-wise and location-wise details of programmes for identification of target areas for mineralisation including Maharashtra, since 2009-10 till date, are given below:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Programme</th>
<th>District</th>
<th>State</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Delineation of Target Areas in Search of Kimberlite Pipes, host rocks for diamond</td>
<td>Ananthapur, Mahabubnagar and Kurnool</td>
<td>Andhra Pradesh</td>
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<td>2.</td>
<td>Application of remote sensing techniques in delineating hydrothermal alteration zones of mineralization</td>
<td>Khetri and Alwar</td>
<td>Rajasthan</td>
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<td>3.</td>
<td>Pilot study on the application of Hyperspectral remote sensing in Hutti-Maski schist belt</td>
<td>Raichur</td>
<td>Karnataka</td>
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<td>4.</td>
<td>Use of Hyperspectral Remote Sensing Data for the Search of Mineralised Provinces/Areas in Precambrian Terrain</td>
<td>Panch Mahal</td>
<td>Gujarat</td>
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<td>5.</td>
<td>Application of Hyper Spectral Remote Sensing in parts of Sakoli mineralized belt</td>
<td>Bhandara</td>
<td>Maharashtra</td>
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<td>6.</td>
<td>Application of Hyperspectral remote sensing technique in basemetal deposits in Sargipalli shear zone</td>
<td>Sundargarh</td>
<td>Odisha</td>
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<tr>
<td>7.</td>
<td>Application of Hyperspectral remote sensing technique in copper deposits in the Kharkari River - Rajdah Sector of Singhbhum shear zone</td>
<td>Singhbhum</td>
<td>Jharkhand</td>
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</tbody>
</table>
8. Development of spectral database of alteration / mineralized zones of eastern part Singhbhum copper belt and Bhimtanagar block of Sukinda chromite belt, using field spectrometer and analysis of spectra
   Singhbhum
   Jajpur
   Jharkhand, Odisha

9. Development of spectral database of alteration / mineralized zones of western part Singhbhum copper belt and Sukinda Khas block of Sukinda chromite belt using field spectrometer and analysis of spectra
   Singhbhum
   Jajpur
   Jharkhand, Odisha

10. Synthesis of Hyperion and ASTER Data and Development of Spectral Database of Rock Types from Alteration / Mineralized Zones of Baula Complex, using Field Spectrometer And Analysis of Spectra
    Kendujhar
    Odisha

11. Application of Hyper Spectral Remote Sensing for generation of spectral library in parts of Sakoli belt
    Bhandara
    Maharashtra

12. Application of Hyperspectral remote sensing for development of Spectral Library over Nuggihalli-Aladahalli Schist Belt and its environs of Western Dharwar Cratons
    Hassan
    Karnataka

13. Development of spectral database of alteration / mineralized zones of Gorubathan and Padong Lead- Zinc deposit, using field spectrometer and analysis of spectra
    Darjeeling
    West Bengal

14. Application of multispectral and Hyperspectral remote sensing towards mapping of alteration / mineralized zone in Kesharpur copper belt
    Mayurbhanj
    Odisha

15. Hyperspectral mapping over Gadag schist belt.
    Gadag
    Karnataka

16. Hyperspectral remote sensing and alteration zone mapping in Nuggihalli-Aladahalli schist belt.
    Hassan
    Karnataka

17. Hyperspectral remote sensing and alteration zone mapping in GR Halli and Ajjanhalli Gold prospects, Chitradurga schist belt.
    Bellary & Chitradurga
    Karnataka

18. Hyperspectral mapping and development of spectral database of mineralized zones of Pollucite deposit of Belamu and Khatanga areas
    Purulia
    West Bengal

19. Hyperspectral mapping in parts of Sakoli & Sausar Belt, capacity building for spectral library.
    Bhandara, Nagpur Balaghat
    Madhya Pradesh, Maharashtra

(d): Yes, satellite images and aerial photography are being used as a preliminary tool for identification of target areas for mineralization.