

**GOVERNMENT OF INDIA
COAL AND MINES
LOK SABHA**

UNSTARRED QUESTION NO:4151

ANSWERED ON:25.08.2004

SATELLITE SURVEY AND AERIAL PHOTOGRAPHY TO LOCATE MINERALS

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Will the Minister of COAL AND MINES be pleased to state:

- (a) whether the Satellite Survey and Aerial Photography are being used for identification and locating certain types of Minerals in the country, State-wise;
- (b) if so, State-wise and location-wise details thereof;
- (c) the salient features and importance of said survey;
- (d) the details of minerals discovered through such system so far, State-wise and location-wise;
- (e) whether the Government proposes to use this technology for identification of minerals in Hilly region particularly in Himachal Pradesh; and
- (f) if so, the details in this regard ?

Answer

THE MINISTER OF STATE IN THE MINISTRY OF COAL AND MINES (SHRI DASARI NARAYANA RAO)

(a) to (d) : Yes, Sir. Satellite imagery, aerial photography and multi-sensor aerial surveys have been successfully used as a supporting tool for locating suitable structures favourable for mineral deposits in the country. The interpretation of remote sensing and aerial photographs helps in identifying major lithocontacts and structural features such as fractures/faults and shear zones which are considered as important locales in searching minerals. The significance of such survey is that a vast area can be interpreted in a short period of time. Besides, such surveys provide a powerful tool for rapid scanning of large tracts of diverse terrains including covered, forested and inaccessible areas. The data, if judiciously interpreted results in a vastly improved understanding of the surface geological framework and structures so vital in mineral exploration. The aerogeophysical surveys and remote sensing studies have helped in solving a large number of geological problems besides leading to the discovery of basemetal deposits and identification of potential target areas. The details of minerals discovered based on the remotely sensed data and airborne surveys followed by field checks, State-wise and location-wise, are given in table below:

MINERAL LOCATION STATE

Lead & Zinc Dedwas-Devpura area, Bhilwara. Rajasthan

Copper Khetri Copper Belt, Akola-Dariba
Copper Prospect, Chittorgarh Rajasthan

Copper Bahargora. Jharkhand

Lead & Zinc Gollapalli. Andhra Pradesh

Zinc & Copper Kolari, Ran Mangli and Thutanbori
areas, Sakoli Basin Maharashtra

Gold Kolar Gold Field Karnataka

Gold Raibonga-Birmitrapur, Sundergarh. Orissa

(e) : No, Sir. Presently there is no specific programme for identification of minerals by remote sensing or airborne geophysical survey over the hilly regions including Himachal Pradesh.

(f) : Question does not arise.