

**GOVERNMENT OF INDIA  
MINISTRY OF SCIENCE AND TECHNOLOGY  
DEPARTMENT OF SCIENCE AND TECHNOLOGY  
LOK SABHA  
UNSTARRED QUESTION NO.4486  
TO BE ANSWERED ON 20/03/2020**

**SURVEY THROUGH TECHNOLOGY**

**4486. MS. CHANDRANI MURMU:**

Will the Minister of SCIENCE AND TECHNOLOGY विज्ञान और प्रौद्योगिकी मंत्री be pleased to state:

- (a) whether his Ministry conducts or supports conducting of Satellite survey of ground water, mining and forest, if so, the details thereof and the outcome of such survey;
- (b) whether any steps are being taken for conducting Mining Survey by GPS technology and if so, the details thereof;
- (c) the steps taken to empower Science and Technology among the school/college/university students;
- (d) whether there is any proposal for establishment of a planetarium at Keonjhar constituency to popularise Science and Technology among the students of this tribal area; and
- (e) if so, the details thereof.

**ANSWER**

**MINISTER OF SCIENCE AND TECHNOLOGY, MINISTER OF EARTH SCIENCES AND  
MINISTER OF HEALTH AND FAMILY WELFARE  
(DR. HARSH VARDHAN)**

स्वास्थ्य और परिवार कल्याण मंत्री, विज्ञान और प्रौद्योगिकी मंत्री और पृथ्वी विज्ञान मंत्री

डॉ. हर्ष वर्धन

(a) No Sir. Ministry of Science and Technology do not conduct or support Satellite survey of ground water, mining and forest. However, Department of Space, Indian Space Research Organization carried out ground water prospect and quality mapping for the country on 1:50000 scale on behalf of Ministry of Jal Shakti. These maps were disseminated to State ground water departments and Public Health Engineering Departments. These are also available on ISRO's Bhuvan portal for visualization. ISRO carried out mapping of coal mines in East Jaintia Hills district of Meghalaya, on behalf of Meghalaya State Pollution Control Board (MSPCB), for the year 2018. Methodology for forest cover mapping was developed by ISRO during early eighties and was transferred to the Forest Survey of India (FSI) for operational execution of national biennial forest cover mapping. Forest cover maps were prepared by ISRO, for selected forest divisions of Arunachal Pradesh, Assam, Meghalaya, & Sikkim.

(b) Department of Space, Indian Space Research Organization carried out pilot study for identifying mining deviation from lease boundary and also mining volume estimation, for two mines in Telangana and Karnataka, for Indian Bureau of Mines, using GPS/Satellite Based Augmentation System. Mineral Exploration Corporation Limited (MECL) under Ministry of Mines is engaged in mineral exploration work in the country, in which survey work is one of

the activities and MECL is conducting such surveys through Differential Global Positioning System (DGPS).

(c) Department of Science and Technology through National Council for Science & Technology Communication (NCSTC) has launched numerous schemes, programmes and projects across the country for creating scientific awareness and capacity building, which include- National Children Science Congress, National Teachers Science Congress and STEMM (Science, Technology, Engineering, Mathematics and Medicine) demonstrations in Science fairs & melas, exhibitions, mobile science exhibitions, lecture-demonstrations, interactive media, visits to S&T establishments, hands-on- activities, and so on.

Department of Space, Indian Space Research Organization has initiated nationwide student outreach programme across the country under the flagship of Vikram Sarabhai Centenary Programme during the Centenary year of Dr. Vikram Sarabhai 2019-20. Events including exhibitions, interactive sessions, lectures and audio/video presentations have been planned at schools/colleges/universities. More than 80 locations have been covered so far and the activity is continuing. Six mobile space museums were conceived and have been moving to rural area schools in six regions of the country. Wide areas were covered in Odisha, Chhattisgarh, Andhra Pradesh, Telangana, Kerala, Karnataka, Tamil Nadu, Maharashtra, Gujrat, UP, MP and North East region. These mobile units are covering other parts of the country continuously.

Ministry of Culture through National Council of Science Museums (NCSM) is primarily engaged in popularizing Science and Technology through a network of 25 science museums and science centres spread across the country. NCSM also organizes Mobile Science Exhibitions (MSE) to augment science awareness programmes in the aspirational districts viz., rural, tribal and Schedule Caste dominated areas, North Eastern States etc. MSE is a Science Exhibition mounted on bus and is on various themes of science and technology which travel to schools especially in rural tribal areas to communicate and popularize S&T. These buses also target the population which is unable to visit science centres.

(d) No Sir.

(e) Does not arise.

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