GOVERNMENT OF INDIA DEPARTMENT OF SPACE

LOK SABHA

UNSTARRED QUESTION NO. 4537 TO BE ANSWERED ON WEDNESDAY, AUGUST 20, 2025

SPACE PROJECTS IN LADAKH

4537. SHRI MOHMAD HANEEFA:

Will the PRIME MINISTER be pleased to state:

- (a) whether the Government is undertaking any projects to improve satellite-based communication and remote sensing in the Union Territory of Ladakh, if so, the details thereof;
- (b) whether Indian Space Research Organisation (ISRO) has launched or plans to launch any dedicated satellite-based monitoring or disaster management systems for Himalayan regions including Ladakh, if so, the details thereof;
- (c) whether the Government intends to establish a satellite ground station, research centre or space science education centre in Ladakh in view of its strategic and geographical significance; and
- (d) if so, the details thereof and if not, the reasons therefor?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND IN THE PRIME MINISTER'S OFFICE (DR. JITENDRA SINGH):

(a) ISRO is realising Resourcesat-3 & 3A, Resourcesat-3S & 3SA, HRSAT, G20 Satellite and TRISHNA Satellite by 2027-2028, to improve remote sensing observations in the country, benefiting the Union Territory of Ladakh also. Data from in-orbit Indian Remote Sensing Satellites (Cartosat-2 series, Cartosat-3, Resourcesat-2 & 2A, RISAT-1A, INSAT-3DR & 3DS, Oceansat-3, SARAL and NISAR) are also available over India, including the Union Territory of Ladakh.

Among the operational communication satellites, 12 satellites have the coverage over the Union Territory of Ladakh. This capacity is offered to various service providers to meet and enhance the Telecommunication and Broadband connectivity. In addition, 10 foreign satellites and 3 Low Earth Orbit /Medium Earth Orbit Constellations are given authorization to provide services over India including Union Territory of Ladakh.

(b) As part of the Natural Resources Census Programme (NR Census) of ISRO/DoS, periodic monitoring of natural resources, status of land degradation, desertification and wastelands are carried out of national level, including Himalaya and Ladakh.

ISRO/DoS has carried out "Mountain Ecosystem Studies of Northwest Himalaya" (including Ladakh), for monitoring Himalayan resources, natural hazards and geodynamics.

ISRO/DoS has also undertaken the following remote sensing application projects in the Union Territory of Ladakh:

- i. Ladakh Specific Modelling and Space Applications (LAMA): Scientific investigations of natural resources, environment and climate change over Ladakh region. A customised dynamic geoportal was developed for assessment and management of natural resources.
- ii. Spatial Data Infrastructure (SDI) Geoportal (Geo-Ladakh) with allied database for development of Union Territory of Ladakh: for bio-resources expansion, agriculture & horticulture management, sites for developing artificial glaciers, conserving water resources, harvesting solar & wind energy, assessing flood hazard etc.
- iii. AMRUT-1.0: Large Scale Urban Geospatial Database created by using Very High-Resolution Satellite Data formulation of GIS based Master Plans for Leh and Kargil towns.
- iv. AMRUT-2.0: Development of Waterbody Information System for Leh and Kargil towns.
- v. LULC Change Analysis: "Assessment of Land Use and Land Cover Change Analysis on 1:50,000 scale of 2020-21 and 2025-26", for Ladakh.

The Disaster Management Support Programme (DMSP) of ISRO/DoS provides satellite data based inputs to the nodal Ministries/ Departments for various natural hazards for effective disaster management at national level, including the Himalayan region of Ladakh.

(c) & (d)

Yes. Under the scope of NETRA (Network for Space Object Tracking and Analysis) project an optical telescope is being established at Hanle, Ladakh for tracking objects at GEO.
