GOVERNMENT OF INDIA

DEPARTMENT OF SPACE

LOK SABHA

UNSTARRED QUESTION NO. 2375

TO BE ANSWERED ON WEDNESDAY, MARCH 16, 2022

LAUNCH OF SATELLITE EOS-4

2375. SHRI RAVNEET SINGH BITTU:

Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that the Indian Space Research Organisation (ISRO) has recently launched an earth observation satellite EOS-4 along with two other scientific satellites;

(b) if so, the details thereof;

(c) the details of the likely benefits to be accrued for agriculture, forestry, flood mapping, soil moisture and hydrology by launching of these satellites;

(d) the details of delays, if any, in all the big ticket missions and other routine launches by ISRO scheduled during the last two years along with the reasons therefor; and

(e) the details of the steps taken by the Government to ensure the early operationalisation of all delayed space missions along with the schedule of future satellite launches in the next two years?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PG & PENSIONS AND IN THE PRIME MINISTER'S OFFICE

(DR. JITENDRA SINGH):

(a)&(b)

Yes Sir, ISRO has successfully launched the earth observation satellite EOS-04 onboard PSLV-C52 on 14th February 2022 at 05:59 hrs IST from Satish Dhawan Space Centre, Sriharikota along with INS-2TD & INSPIRESat-1 as co-passengers. The Satellites were injected into the polar sun synchronous orbit at 524.87 km altitude. EOS-4 is a Synthetic Aperture Radar (SAR) imaging satellite for Earth Observation operating in C-band at 5.4 GHz frequency for all weather & day/night imaging. INS-2TD is the first satellite of the 2nd generation nano-satellite intended to demonstrate indigenously developed Nano systems for in-orbit performance. INSPIRESat-1 is a student satellite of the class 9U jointly developed by Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram, India and Laboratory of Space Physics, University of Colorado, Boulder, the USA.

(c) The data from EOS-4 will be helpful for applications in the domains of agriculture, forestry, flood mapping, soil moisture and hydrology. The likely benefits to be accrued in these domains include assessment of inventory of crops & multiple in-season crop production forecast, early assessment of long duration kharif crops, assessment of forest disturbance &

forest biomass, advisories on crop-water requirements, monitoring of flood-inundated areas, all-season assessment of surface water spread, reservoir capacity, irrigation performance etc.

(d) The big ticket missions and other routine launches by ISRO were badly impacted in the last 2 years due to the prevailing COVID-19 situation in the country. ISRO Centres as well as industries were not fully operational due to imposition of lockdowns and other restrictions at different times in different cities. Further, global and domestic supply chain was disrupted which also impacted the scheduled missions of ISRO. This has resulted in significant delays to key missions including CHANDRAYAAN-3, GAGANYAAN and other routine missions including EOS-4, EOS-6.

(e) ISRO has been trying to compensate for the delays by taking a number of steps that includes prioritisation of resources for key missions such as CHANDRAYAAN-3, GAGANYAAN etc. These efforts have resulted in the recent successful launch of EOS-4 on the PSLV C-52 mission. It is expected that missions including EOS-06, NVS-01 would be successfully completed during the year 2022-23 in addition to other key missions.

For the coming two years, initiatives are also being undertaken for various other prestigious missions that includes ADITYA-L1, Technology Demonstration Satellite, XPOSAT.

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