O.I.H.

GOVERNMENT OF INDIA

DEPARTMENT OF SPACE

RAJYA SABHA

UNSTARRED QUESTION NO. 1568

TO BE ANSWERED ON THURSDAY, FEBRUARY 12, 2026

APPLICATION OF SATELLITE-BASED SERVICES

1568. SHRI PRADIP KUMAR VARMA:

Will the PRIME MINISTER be pleased to state:

(a) the number of satellites launched by India under various categories, including communication, navigation and earth observation and their current operational status;

(b) the extent to which commercial utilization of NavIC (Indian Regional Navigation Satellite System) has increased and the plans for its further expansion;

(c) the benefits derived from the use of satellite technology in agriculture, weather forecasting, disaster management and telecommunications; and

(d) the timeline by which satellite-based internet (satellite broadband) services for broadband connectivity and digital services are expected to be launched?

ANSWER

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

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(a) Details of number of satellites launched by India under various categories, including communication, navigation and earth observation and their current operational status is given below:

Sl. No.	Nature of Satellites	Number of Satellite Launched	Number of Operational Satellites
1.	Earth Observation	50	21
2.	Communication	43	20
3.	Navigation	11	8
4.	Space Science Missions	7	4

Sl. No.	Nature of Satellites	Number of Satellite Launched	Number of Operational Satellites
5.	Technology Demonstration	24	3
	Total	135	56

(b) The commercial and public utilisation of NavIC (Navigation with Indian Constellation) has seen significant growth over the past years. Real-time train tracking is operational on over 10,400 locomotives. Over 40,000 fishing vessels are equipped with NavIC receivers for tracking and emergency alerts. More than 60 mobile handset models from major global manufacturers support positioning with NavIC. To strengthen the constellation, ISRO is in the process of launching the NVS series (NVS-03, NVS-04, and NVS-05) of second-generation satellites.

(c) In the case of satellite communication & navigation, the major utilization is in terms of support services for disaster management. Disaster alerts and personal distress connectivity is provided through GSAT and NavIC/GAGAN systems under Vessel Communication and Support Systems (VCSS) of Department of Fisheries. In addition, search-and-rescue using 3 satellites under COSPAS-SARSAT programme have been used to save lives during many distress incidents in the Indian service area. NavIC one way messaging service broadcasts emergency warnings for Cyclones, Tsunamis, and high wave alerts directly to NavIC-enabled receivers on boats, In coordination with the Indian National Centre for Ocean Information Services (INCOIS). The system provides Potential Fishing Zone (PFZ) advisories to help fishermen locate fish aggregations, saving fuel and time, while simultaneously providing International Maritime Boundary alerts to prevent accidental straying into foreign waters.

The benefit of communication satellites are translated in terms of applications like television broadcasting, DTH television, telecommunication, Very Small Aperture Terminal (VSAT) services, Radio networking, Headend In The Sky (HITS), Digital Satellite News Gathering (DSNG), In-Flight and Maritime Connectivity (IFMC), and societal applications (like tele-education, tele-medicine and disaster management).

(d) Satellite internet services are emerging as critical solution to bridge India’s digital divide. Indian landscape has a diverse topography with lands, hills, islands etc. Programmes like BharatNet and Digital India already leverages use of satellite connectivity in broadband area to expand the reach.

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