

**GOVERNMENT OF INDIA  
MINISTRY OF COMMUNICATIONS  
DEPARTMENT OF TELECOMMUNICATIONS**

**RAJYA SABHA  
UNSTARRED QUESTION NO. 1936  
TO BE ANSWERED ON 8<sup>TH</sup> AUGUST, 2024**

**DEVELOPMENT OF INDIGENOUS 5G TECHNOLOGY**

**1936 SHRI SANJAY SETH:**

Will the Minister of Communications be pleased to state:

- (a) whether Government has initiated any schemes to provide connectivity in areas where terrestrial connectivity is unavailable, the details thereof;
- (b) the advancements made in the development of indigenous 5G technology and infrastructure; and
- (c) the insights into the collaborative efforts undertaken by Government, industry and research institutions in the development and deployment of the indigenous 5G Test Bed?

**ANSWER**

**MINISTER OF STATE FOR COMMUNICATIONS AND RURAL DEVELOPMENT  
(DR. PEMMASANI CHANDRA SEKHAR)**

(a) To enhance connectivity in areas without terrestrial access, several schemes and projects are underway. Under BharatNet Phase-II, VSAT technology provides satellite connectivity to 5,519 Gram Panchayats (GPs) lacking terrestrial connectivity. Additionally, USOF-funded mobile schemes aim to deliver mobile services to uncovered villages in rural and remote areas. Key projects include 354 Uncovered Village Project, 502 Aspirational District Project, LWE (Left Wing Extremist) Phase-I&II Projects, Aspirational District Project and 4G Saturation Project.

(b) & (c) The steps being taken by the government for advancement in indigenous 5G Technology, infrastructure and 5G Test Bed are as follows:

- i. **Indigenous 5G Test Bed:** Established in collaboration with IIT Madras, IIT Delhi, IIT Hyderabad, IIT Bombay, IIT Kanpur, IISC Bengaluru, SAMEER, and CEWiT at the cost of Rs. 224 Crore which provides an end-to-end testing facility for Indian academia and industry R&D teams.
- ii. **5G Use Case Labs:** Government is establishing 5G labs at 100 Institutions across India to develop competencies for new telecom technologies, engage start up and academia to develop use cases for national and global requirements.
- iii. **C-DOT's initiative:** Under the C-DOT Collaborative Research Program (CCRP), C-DOT is partnering with Indian industry, academia, and startups to develop 5G technology.

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