

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

**RAJYA SABHA
UNSTARRED QUESTION NO. 713
TO BE ANSWERED ON 8TH DECEMBER, 2023**

INDIA'S ROLE IN GLOBAL LANDSCAPE OF 6G TECHNOLOGY

713 Shri Sujeet Kumar:

Will the Minister of Communications be pleased to state:

- (a) Government's vision of India's role in the global landscape of 6G technology;
- (b) the strategies that are in place to establish the country as a leading supplier of 6G technology;
- (c) the details of specific areas of 6G technology that have been covered in the patents secured by India;
- (d) whether Government plan to leverage this intellectual property for global competitiveness;
- (e) if so, the details thereof; and
- (f) the details of initiatives to encourage innovation and research in the private sector to complement Government's efforts in building a robust 6G patent portfolio?

ANSWER

**MINISTER OF STATE FOR COMMUNICATIONS
(SHRI DEVUSINH CHAUHAN)**

(a) & (b) The Government has released Bharat 6G Vision Document with the following objectives:

- i. Design, develop and deploy 6G network technologies to provide ubiquitous, intelligent and secure connectivity for high quality living experience.
- ii. Affordability, Sustainability and Ubiquity which align with the national Vision of Atmanirbhar Bharat that seeks to empower every Indian to become self-reliant.

In order to take a lead in 6G technology, the Government has constituted Bharat 6G Mission and an Apex Council to lay down the Phase-wise objectives of the 6G Mission, suggest the research and innovation pathways to be explored and review the progress of implementation of Bharat 6G Vision from time to time. The Government has also taken following steps to take a lead in development of 6G technology by 2030:

- a) Telecom Technology Development Fund (TTDF): TTDF scheme was launched with 5% of annual collections from Universal Service Obligation Fund for funding research & development of technologies, products, and services. Under TTDF, two proposals for test beds have been approved, viz, 6G THz Testbed through consortium of Society for Applied Microwave Electronics Engineering and Research

(SAMEER), IIT Madras, IIT Guwahati and IIT Patna; Advance Optical Communication Test Bed with Consortium Members as IIT Madras, IIT Delhi and other academic institutions.

- b) Government has sanctioned 100 5G and beyond labs at academic institutions, across India.
- c) India has contributed in International Telecommunications Union International Mobile Technology (IMT) 2030 framework, also called 6G by industry for inclusion of 'Ubiquitous Connectivity' as one of the six usage scenarios of 6G and coverage, interoperability and sustainability as capabilities of 6G technology.

(c) to (f) The Indian patents related to the 6G technologies are broadly in Radio and Core Components. The Government is investing in indigenous capabilities to lead the development of 6G technology and funding research and development through various schemes like TTDF and Digital Communication Innovation Square. Further, Bharat 6G Alliance (B6GA), an initiative of industry, academia, national research institutions and standards organizations, has been launched to promote the ecosystem for research, design, development and Intellectual Property Rights (IPR) creation in 6G technology. B6GA has also signed Memorandum of Understanding with NextG Alliance of USA to explore collaboration opportunities on 6G wireless technologies.
