

# Standing Committee Report Summary

## India's Preparedness for 5G

- The Departmentally Related Standing Committee on Information Technology (Chairperson: Dr. Shashi Tharoor) submitted its report on India's preparedness for 5G in February 2021. The Committee made the following observations and recommendations:
- **Status of 5G deployment:** The Committee noted that 118 operators across 59 countries (including USA, China, and UK) have deployed 5G network. 5G has mostly been launched at a limited scale so far. In India, the commercial rollout of 5G is yet to happen. As of January 2021, 5G trials by Telecom Service Providers (TSPs) have not been permitted by the Department of Telecommunications. The Committee noted that sufficient preparatory work has not been undertaken for the launch of 5G services in India. It highlighted the following as key challenges with the adoption of 5G: (i) inadequate availability of spectrum, (ii) high spectrum prices, (iii) poor development of use cases for 5G, (iv) low fiberisation (connectivity with optical fibre), and (v) deficient backhaul capacity.
- **Allocation of spectrum for 5G:** Allocation of new bands of spectrum is crucial for the rollout of 5G. However, the auction of 5G spectrum is still pending. The Committee noted the concerns of the telecom companies that the reserve price set by the Telecom Regulatory Authority of India for 5G spectrum (Rs 492 crore per MHz) is exorbitantly high. The Committee observed that considering the financial stress in the sector and that the 5G ecosystem is yet to be developed, a high reserve price may adversely impact the ability of service providers to roll out 5G.
- The Committee further noted that based on the current availability of spectrum, approximately 50 MHz spectrum per operator can be ensured. This is substantially lower than the global average of about 100 MHz per operator. It noted that in case of 4G too, the average spectrum per operator in India is around one-fourth of the global average. The Committee observed that there is an urgent need for an audit of all allocated spectrum for detecting underutilisation and subsequently rationalising the allocation of spectrum.
- The Committee noted that apart from enhanced mobile broadband, Industry 4.0 is expected to drive the adoption of 5G. Industry 4.0 refers to the trend of automation and digitalisation of manufacturing processes by leveraging information and communication technologies. It observed the licensing policy for spectrum for industry and captive uses needs to be streamlined. This will aid in attracting manufacturers to set up a base in India.
- **5G standards:** A variant of the global standard for 5G (3GPP) has been developed in India known as TDSI-RIT. TDSI-RIT offers enhanced rural coverage and reduces costs to cover a certain defined area. The Committee noted the concerns of the stakeholders that TDSI-RIT standards are not globally harmonised. This could lead to increased cost for network and customer devices, and interoperability issues.
- **Promotion of domestic manufacturing and indigenous technology:** The Committee observed that India is greatly dependent on the import of telecom equipment. 5G presents an opportunity for the promotion of domestic manufacturing as well as indigenous technology due to the changed nature of network components as compared to 3G and 4G. There will also be a multi-fold increase in demand for telecom equipment to provide ubiquitous connectivity. Further, the focus on the softwarisation of network components in 5G (software running on off-the-shelf hardware) provides an opportunity to leverage India's capacity in software. It observed that the promotion of research and development is necessary for the success of telecom manufacturing in the country. An ecosystem must be developed for complete manufacturing rather than just assembly, as manufacturing gives higher value addition.
- **Fibre as a national asset:** The Committee noted that connectivity through the fibre is an important requirement for the rollout of 5G services. However, only about 30% of the towers are fiberised and less than 7% of households are connected through fibre. The Committee recommended that fibre should be accorded the status of essential national infrastructure. It observed that delays and costs associated with the right of way permissions need to reduce to support fiberisation. Sharing of fibre infrastructure across government and private players should be promoted. A single window clearance of grant of permission for fibre laying should be considered.
- **Setting up of 5G use case labs:** The Committee noted that sufficient use cases for 5G have not been developed in India. It recommended that the development of use case labs should be expedited. It also recommended that the digital readiness of various sectors should be monitored by a cross-sectoral entity like NITI Aayog.

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