



Telecom Sector: Digital Fabric For India

This editorial is based on [“Letting go of a chance to democratise telecom services”](#) which was published in The Hindu on 01/10/2022. It talks about issues related to Telecom Sector in India and Draft Telecommunication Bill 2022.

For Prelims: Telecom Sector in India, 5G, Telecom Regulatory Authority of India (TRAI), Metaverse, Telemedicine, E-waste, BharatNet, Digital India, OTT Platforms, Optical Fibre.

For Mains: Current Status of the Telecom Sector in India, Issues Associated With the Telecom Sector in India, Towards Social Inclusion From Digital Inclusion.

Telecom sector has a **multiplier impact** on the economy and in India, it is going through a booming phase playing an important role in **economic growth** and **social transition** of the country.

According to [Telecom Regulatory Authority of India \(TRAI\)](#), India is currently the world's **2nd largest telecommunication market** with an overall teledensity of **85.11%**(July 2022). **Internet** and broadband penetration in the country is increasing steadily, boosting the **Government's Digital India campaign** and recently India has joined the race in **5G**.

Yet there are still gaps, such as **high right-of-way costs**, low-rural penetration of modern telecom infrastructure, **data privacy**, and **mismanagement of e-waste**. Therefore, a **stringent legal framework** governing telecommunication in India is essential.

What is the Current Status of the Telecom Sector in India?

- **Expanding Telecom Market:** India is currently the world's **2nd-largest telecommunications market** with a subscriber base of **1.20 billion** and has registered strong growth in the past decade and a half.
 - Also, India is on its way to becoming the **2nd-largest smartphone market globally by 2025**.
- **Contributor to Government's Non-Tax Revenue:** The telecom sector contributes significantly to the **government's non-tax revenue** (via spectrum auctions, one-time fee from new operators and recurring license fees and **spectrum charges**). The Digital India program is also almost completely dependent on this sector.
 - **100% Foreign Direct Investment (FDI)** has now been allowed in the Telecom sector under the automatic route.
- **Major Government Initiatives:**
 - **Full Mobile Number Portability (MNP):** Government has allowed **One Nation Full Mobile Number Portability (MNP)**. This has enabled the subscribers to change their licence service area and **still retain their mobile number**.

- **BharatNet:** The Government is implementing the flagship [BharatNet project](#) (in phases), to link each of the **2.5 lakh Gram Panchayats of India through optical fibre network**. This is the largest rural connectivity project of its kind in the world.
- **Booming Era of 5G:** GOI has recently rolled out **5G** in India that will not only facilitate **communication technology** but also add a new dimension to the missions like **'Digital India'** and **'Smart Cities'**.
- **Draft Telecommunication Bill 2022:** The Government of India has expressed plans to **expand the definition of "telecommunication services"** by including **Over-the-top (OTT) communication** services under the same umbrella, which means that **internet-based communications and OTT would both require a licence to offer services**.
 - The plan also lays down provisions for **unutilised spectrum** to be **shared, traded, leased, surrendered, returned, or surrendered**.

What are the Issues Associated With the Telecom Sector in India?

- **Rural-Urban Disparity:** Although adequate teledensity has been achieved, there is a significant **discrepancy in the share of telecom subscribers** between urban (**55.42%**) and rural (**44.58%**) areas of India.
 - Also, **fixed broadband penetration** in the country is among the lowest in the world at only **1.69 per 100 inhabitants**.
- **Right of Way Challenge:** The **Right of Way** has been a contentious issue for the Indian telecoms sector due to variable and **complex legal procedures** across states, **non-uniformity in levies, and approvals from the Forest Department, Railways and National Highway Authority**, causing delays in paperwork.
 - Various planning and rollout processes for **towers and fibre across** the country have been affected by this delay.
- **Issue with Over the Top Platforms (OTT):** OTT platforms like **Whatsapp and Telegram** use the network infrastructure of telecom service providers like **Airtel and Jio** to provide services such as voice calls and SMS services.
 - **Telecom Service Providers (TSPs)** allege that these features result in a **double whammy for them** as they **cut into their sources of revenue** (voice calls, SMS).
- **Lack of Spectrum Availability:** While **spectrum availability is a larger global problem**, it is particularly **acute in India**.
 - According to the **Cellular Operators Association of India Annual Report**, operators in India possess significantly smaller amounts of spectrum as compared to international standards, approximately **13 MHz on average**.
- **Mismanagement of E-waste:** Telecom industry impacts the environment in multiple ways, including through the generation of **e-waste**. In India, more than **95%** of e-waste is **illegally recycled by informal waste pickers**.
- **Lack of Optical Fibre Connectivity:** Data consumption is growing rapidly in India, and the lack of fibre networks is compromising the ability of telcos to offer reliable and high-speed connectivity.
 - India will need **16 times more fibre** to smoothly transition to **5G**.

What Should be the Way Forward?

- **Social Inclusion From Digital Inclusion:** The **Internet** does not discriminate between people, **it is the beacon of democracy**. By expanding the telecom infrastructure and connecting the digitally unconnected areas in India, **social inclusion** can be achieved.
 - A pregnant woman in hilly areas can obtain primary healthcare from home via **telemedicine**. **Physically disabled people** can explore the multitude of **metaverse**, and the **elderly** can relive their old days through **VR technology**.
 - **Also**, social media platforms will enable the **urban LGBTQIA+ community** to speak out and communicate with **rural LGBTQIA+** people who feel **stifled by societal restrictions**.
- **Promoting Digital Literacy:** Internet access and digital literacy are dependent on each other, and creation of digital infrastructure must go hand in hand with the creation of digital skills.
 - **Digital Foundation Centres** can be established in rural areas to **educate and empower** not only young students, but also the working population, especially **women**.
- **Towards Seamless and Secure India:** It is necessary to set up **sector-specific data**

management and grievance redressal standards (including OTT platforms) to ensure **seamlessness and security** of digital communication across the country.

- At the same time, **securing the interests of citizens** with special focus on ensuring **individual autonomy and choice**.

- **Single Window for Right to Way:** A collaborative institutional mechanism between the **Centre, States and Local Bodies** should be developed to speed up the **Right of Way** process.
- **Prioritising Research and Development in Telecom:** There is a need to emphasise upon **R&D** in the telecom sector and creating an environment where hardware components like **mobile handsets, CCTV cameras, touch screen monitors, etc.** can be manufactured and exported by India and transform the country into a **manufacturing and exporting hub**.

Drishti Mains Question

Discuss the major issues related to management of Telecom Sector in India in light of recent 5G rollout.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. Which of the following is/are the aims/aims of the “Digital India” Plan of the Government of India? (2018)

1. Formation of India’s own Internet companies like China did.
2. Establish a policy framework to encourage overseas multinational corporations that collect Big Data to build their large data centres within our national geographical boundaries.
3. Connect many of our villages to the Internet and bring Wi-Fi to many of our schools, public places and major tourist centres.

Select the correct answer using the code given below:

- (a)** 1 and 2 only
- (b)** 3 only
- (c)** 2 and 3 only
- (d)** 1, 2 and 3

Ans: (b)