



## 5G in India

### Description

#### Theme:

- The government of India announced that 5G services will be launched in India by October 12, 2022, and further stated that the goal is to make services accessible to all areas of the nation within the next few years while also keeping them affordable.

#### Opportunities:

- The low latency of 5G will enable the inclusion of education in remote areas of India, where children will be able to access good quality education at home without any network lag between them and their favourite tutor.
- Also, 5G will make it possible to use new age technologies like AR and VR for more immersive learning in schools and colleges.
- 5G will vastly increase the number of networks that can be connected, handling up to a trillion Internet of Things terminals, which will enable machines and humans in a factory to communicate with each other seamlessly, making the business more efficient and reducing the possibility of error.
- 5G in banking will bring much-needed financial inclusion to India's rural and remote populations, for whom access to a physical bank is not possible.
- With the help of 5G, payments will become simpler and faster, fueling further adoption of digital payments by customers and merchants.
- The government will be able to improve its governance and give a boost to its digital India initiative, which aims to ensure the government's services are made available to citizens electronically, making the country digitally empowered in the field of technology.
- 5G can transform telemedicine services. It will become possible to provide healthcare services to rural and remote areas of our country. Patients will be able to connect virtually with doctors and other health care providers using telehealth technology, allowing them to receive assistance in their time of need.



- Smart farming will be possible in agriculture for our farmers, who will be able to easily manage and track their livestock using smart sensors and GPS technology.

### Challenges:

- According to the National Employability Report, only 3% of Indian engineers have skills related to AI, Machine Learning, etc. Due to the lack of skilled manpower, India may not be able to utilize the full potential of 5G technology and might even miss the opportunities of Industrial Revolution 4.0.
- Due to lack of fibre infrastructure, India faces poor quality of service and call drop issues, which indicate the country's low investment in fibre and backhaul infrastructure, which is used for getting data to a point from which it can be distributed over a network. Only 20% of towers in India are backhauled, compared with 80% in countries like the US, China, and Korea.
- 5G may not be able to reach rural and remote places anytime soon, due to the lack of infrastructure for last mile connectivity. This will increase the digital divide between rural and urban India.
- India lacks a unified broadband strategy for implementing 5G, which creates uncertainty about the proper use of 5G technology for future economic and technological advancement opportunities.
- Many people in India are still not able to afford a 4G smartphone. With the rise in the cost of manufacturing smartphones, financial stress building up on the telecom sector and the recent crackdown on Chinese phone manufacturing companies, a new technology like 5G can take a long time to become affordable for ordinary people.



### Way Forward:

- The government must focus on skill development so that we do not have to rely on foreign talent to properly implement 5G technology in India. A more qualified labour force with modern skills like AI and machine learning will also help in attracting investment to the fields of R&D, electronics, AI, and machine learning.



- The government should focus more on making policies that give importance to fibre deployments to improve infrastructure and last mile connectivity for 5G in India.
- 5G needs a proper strategy for its implementation in different sectors, otherwise all our hard work might be wasted without us utilizing the full potential of 5G technology.
- To make 5G services affordable for all, the government should provide some assistance to the telecom sector and Indian phone manufacturers. This will aid in the widespread adoption of 5G in rural India.

### **Conclusion:**

Implementation of 5G services can improve the standard of living. Effective steps should be taken to make sure the benefits are available to everyone, including the people living in the remote areas. Moreover, it is important to upskill the workforce to solve the issue of talent shortage.

### **Your Turn!**

What are your thoughts on 5G technology? Express your point of view through the comment section below. And subscribe to our blog to read answers to the trending GD topics.

### **References:**

- [What are the challenges of fiberisation ahead of India's 5G deployment?](#)
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