



**13 February 2025**  
**ITU-APT/L/2023-24/934**

**Shri Jyotiraditya Scindia**  
Minister of Communications  
Department of Telecommunications  
Government of India  
Sanchar Bhawan  
New Delhi-110001

**Subject: Spectrum Allocation for 6G in India**

Hon'ble Shri Scindia Ji,

I hope this letter finds you well. On behalf of the ITU-APT Foundation of India (IAFI), I extend our greetings and express our gratitude for your continued efforts in advancing India's telecommunications sector. I am writing this letter to highlight the critical importance of securing the right spectrum resources for the development of 6G technology in India. With its promise of unprecedented speeds, ultra-low latency, and the ability to connect billions of devices, 6G has the potential to transform industries and societies. However, realizing these ambitions depends on timely and strategic spectrum allocation.

As India advances towards 6G, it is essential to consider the spectrum landscape in light of the existing bands identified for International Mobile Telecommunications (IMT) under the Radio Regulations. The lessons learned from 5G deployment reinforce the importance of proactive planning to ensure

India's leadership in next-generation connectivity. The World Radiocommunication Conference 2023 (WRC-23) marked significant progress in this direction, allocating new bands such as the upper 6 GHz range (6.425 - 7.125 GHz) for licensed IMT use across Europe, Middle East, Africa (EMEA), parts of Asia, and the Americas. The 3.5 GHz band (3.3 - 3.8 GHz) has also been widely adopted across EMEA.

While these allocations have been instrumental in supporting 5G, they fall short of the capacity required for 6G, which is expected to enable bandwidth-intensive applications such as extended reality (XR) and holographic communications. Initial estimates suggest that a minimum of 1 GHz of contiguous spectrum per network will be necessary to meet 6G's demands. Given the presence of multiple operators in each country, an additional 500-750 MHz of spectrum in the 7-15 GHz range will be required to sustain nationwide deployment.

Expanding network capacity through densification alone is not a viable alternative due to the high costs and technical challenges associated with extreme small-cell deployments. Achieving efficient and scalable connectivity necessitates access to new mid-band spectrum, ensuring optimal performance without excessive infrastructure expansion.

In this context, Agenda Item 1.7 of WRC-27 plays a pivotal role, as it focuses on evaluating the feasibility of allocating specific frequency bands for IMT, including 4.4 - 4.8 GHz, 7.125 - 8.4 GHz, and 14.8 - 15.35 GHz. The ITU-R has been invited to conduct studies on the technical, operational, and regulatory aspects of these bands, including spectrum-sharing frameworks to protect existing services. These studies will be crucial in determining suitable spectrum bands for 6G and developing the regulatory conditions for their use. Securing adequate spectrum

for 6G is a complex but vital task. While the existing IMT spectrum serves as a foundation, additional allocations in the 7-15 GHz range are necessary to achieve 6G's full potential. The lessons from 5G underscore the importance of global harmonization and regulatory certainty in facilitating seamless adoption. As WRC-27 approaches, active participation in ongoing ITU-R studies will be key to ensuring that India is well-positioned to lead in 6G innovation.

With careful planning and collaboration, India can not only meet domestic connectivity needs but also emerge as a global frontrunner in 6G technology. I urge the Ministry of Communications to take proactive steps in this regard, ensuring that India's spectrum policy aligns with the long-term vision for next-generation connectivity. IAFI remains committed to supporting these efforts and looks forward to working closely with the Ministry to drive India's 6G leadership.

Thank you for your attention to this important matter. I look forward to your positive response and continued leadership in shaping India's digital future.

**Warm regards,**



**Bharat B Bhatia**

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**Copy to**

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The Wireless Advisor to the Government of India