

# Egypt Mobile Spectrum Roadmap 2026 – 2030

## Enabling the Future of Mobile Connectivity

**National Telecom Regulatory Authority (NTRA) – Egypt**  
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### Executive Summary

Egypt's telecommunications sector is witnessing a new era of growth and innovation. The National Telecommunications Regulatory Authority (NTRA) has approved the Mobile Spectrum Roadmap 2026–2030, a comprehensive five-year plan that provides long-term visibility and regulatory certainty for the nation's mobile network operators.

This roadmap introduces a structured package of **410 MHz** of additional new frequencies across three critical bands (1800 MHz, 2600 MHz, and 3500 MHz). This represents a historic milestone, effectively **doubling the amount of spectrum allocated to mobile services** since their introduction in Egypt in 1997.

By aligning spectrum release with national digital priorities and international harmonization, the roadmap aims to:

- **Enhance Service Quality:** Reduce congestion and improve network throughput, latency, and coverage.
- **Accelerate 5G Deployment:** Provide large, contiguous spectrum blocks necessary for commercial 5G networks and advanced use cases.
- **Foster Investment Confidence:** Replace ad-hoc assignments with a predictable framework, enabling long-term planning and billions of dollars in private infrastructure investment.
- **Support National Digital Transformation:** Underpin the development of smart cities, IoT, digital government services, and a thriving digital economy.

This white paper details the strategic vision, key spectrum assignments, and transformative impact of Egypt's Mobile Spectrum Roadmap 2026–2030.

### Introduction: A Transformational Shift in Egypt Spectrum Policy

In October 2025, the Board of the National Telecommunications Regulatory Authority (NTRA) approved a landmark policy: Egypt's Mobile Spectrum Roadmap 2026–2030. This approval marks a fundamental shift in national spectrum management—from a reactive, ad-hoc assignment model to a proactive, strategic governance framework.

For decades, spectrum awards were primarily driven by immediate requests from national operators. The new roadmap introduces a structured, transparent five-year plan for spectrum assignment, renewal, and forward planning. This predictable regulatory environment empowers mobile operators to make long-term investment decisions with confidence, ensuring that Egypt's digital infrastructure can meet the demands of the future.

This policy reform follows a historic transaction that saw the assignment of 410 MHz of new spectrum, a move that underscores the government's commitment to building a world-class digital ecosystem.

## The Strategic Imperative: Why a Roadmap Was Necessary

Mobile spectrum is the invisible backbone of wireless connectivity. Its availability and management directly impact a nation's digital progress. Without a clear, forward-looking plan, Egypt risked network congestion, service degradation, and investment uncertainty, constraining its national digital ambitions. The roadmap directly addresses these challenges by optimizing three critical areas affected by spectrum policy:

- **Network Capacity and Speed:** More bandwidth enables higher data throughput and supports the exponentially growing user traffic from video streaming, social media, and cloud applications.
- **Coverage Quality:** Strategic use of different frequency bands ensures deeper indoor penetration and wider area coverage, bridging the digital divide.
- **Service Innovation:** Diverse and robust spectrum holdings are the bedrock of advanced use cases, from massive IoT ecosystems to ultra-reliable, low-latency applications like augmented reality (AR), virtual reality (VR), and industrial automation.
- **Investment Confidence:** Predictable and transparent spectrum policies reduce regulatory uncertainty and encourage long-term operator and vendor investment.

The 2026–2030 roadmap is the strategic answer to these imperatives, designed to foster both economic growth and an enhanced user experience for all Egyptians.

## The Spectrum Portfolio: Allocation for 2026–2030

The new package consists of 410 MHz of prime spectrum assets, allocated to enhance coverage, capacity, and 5G readiness. This historic allocation doubles the total spectrum granted to the mobile sector since 1998.

Frequency Band	Key Characteristics	Total New Spectrum
1800 MHz	Ideal for balancing coverage and capacity,	40 MHz (FDD)
2600 MHz	boosting data throughput in dense areas.	20 MHz (TDD)
3.5 GHz	The global core mid-band for 5G, enabling large channel bandwidths	350 MHz (TDD)
<b>TOTAL</b>		<b>410 MHz</b>

These spectrum allocations will be assigned to the national four mobile operators in phases along the period 2026–2030, as follows:

- **Vodafone Egypt**
  - 20 MHz (FDD) in the 1800 MHz band
  - 100 MHz in the 3.5 GHz band
- **e& Egypt**
  - 20 MHz (FDD) in the 1800 MHz band
  - 100 MHz in the 3.5 GHz band
- **Orange Egypt**
  - 10 MHz in the 2600 MHz band
  - 100 MHz in the 3.5 GHz band
- **Telecom Egypt**
  - 50 MHz in the 3.5 GHz band

These assignments will last till 2039. On other hand, the 2.6 GHz spectrum previously awarded in 2020 and 2022, has been also extended until 2039. This extension provides operators with the certainty needed to integrate this band into their long-term network strategies.

## Early Capacity Expansion (2020–2022)

Before the formal roadmap approval, the NTRA demonstrated its commitment to proactive spectrum management by accelerating awards in response to surging, pandemic-driven data demand.

- 130 MHz of 2.6 GHz spectrum was awarded in two phases (2020 and 2022).
- This process introduced Time Division Duplex (TDD) technology to Egypt for the first time.

The deployment of TDD technology significantly improved spectral efficiency and increased data throughput capacity. these early actions established Egypt's technical foundation for 5G readiness.

## Enabling the Future: 5G Readiness and Infrastructure

The spectrum roadmap is the culmination of a structured 5G readiness program initiated by the NTRA in 2021. Key preparatory steps included:

- **Pioneering 5G Trials:** Successful trials were conducted in the New Administrative Capital using the 3.5 GHz band, validating the technology.
- **Fiber Infrastructure Expansion:** A parallel push for fiber-to-the-site (FTTX) deployment ensured that the backhaul network is robust enough to handle the massive data flow from 5G base stations.
- **Microwave Modernization:** Flexible regulatory rules were introduced to enhance the use of E-band microwave links, providing a high-capacity alternative for backhaul where fiber is not immediately available.
- **Continuous Coordination:** The NTRA maintained close coordination with all four mobile operators to align on technical readiness and deployment timelines.

The 2026–2030 roadmap now provides the essential spectrum fuel to scale these early initiatives into a nationwide commercial 5G reality.

## Strategic Objectives: The Pillars of the Roadmap

The 2026–2030 roadmap is built on four core strategic pillars designed to maximize the socio-economic return of this national resource.

### Enhance Service Quality

The infusion of new spectrum will directly alleviate network congestion, leading to a dramatic improvement in user experience. Key performance indicators will see gains in network throughput, latency performance, and indoor coverage, ensuring a consistent and reliable quality of service for all users.

### Accelerate 5G Deployment

The award of large, contiguous blocks in the 3.5 GHz band is a game-changer. It enables operators to deploy advanced 5G features, including Massive MIMO and Carrier Aggregation.

### Provide Regulatory Certainty

For the first time, Egypt's telecom market operates with a published five-year assignment timeline, clearly defined procedures and terms, transparent valuation mechanisms, and predictable renewal planning. This dramatically improves the investment climate, encouraging both local and foreign direct investment.

### Support National Digital Transformation

This spectrum is a critical enabler for Egypt's broader Vision 2030. It will underpin the digital infrastructure for smart cities, the Industrial Internet of Things (IIoT), digital government services, financial technology (fintech) growth, and high-reliability enterprise cloud connectivity.

## A New Era of Regulatory Certainty

The Spectrum Roadmap represents a paradigm shift in Egyptian spectrum policy.

- **Previously:** Spectrum awards were reactive, and operators had limited visibility into future availability, hindering strategic planning.
- **Now:** The NTRA has proactively consulted with operators on future requirements, developed a comprehensive five-year plan, and clarified assignment timing, conditions, and values.

This structural shift strengthens transparency, improves regulatory efficiency, and builds unshakeable investor confidence. It signals that Egypt is open for business and committed to fostering a world-leading digital economy.

## Economic and Competitive Impact

The 2026–2030 roadmap is not just a technical document; it is a powerful economic stimulus. By doubling historical spectrum assignments, the NTRA has:

- Unlocked billions of dollars in private infrastructure investment from operators.
- Enhanced Egypt's regional competitiveness as a digital hub.
- Improved service quality and choices for consumers and businesses.
- Supported GDP growth by enabling digital transformation across all sectors of the economy.

By securing both new spectrum and long-term license renewals, Egypt has created a stable and attractive foundation for sustainable telecom expansion and digital innovation.

## Egypt Endorses the Advancement of Mobile Technologies

The NTRA has consistently supported the ITU's initiatives in establishing international telecommunications standards, particularly concerning mobile systems. In addition, the NTRA has contributed to the identification of multiple spectrum bands designated for IMT over the past decades. Notably, Egypt was the host country for the World Radiocommunication Conference-19 (WRC-19), which convened over 3,500 participants for nearly a month. At WRC-19, the frequency bands 24.25-27.5 GHz, 37-43.5 GHz, 45.5-47 GHz, 47.2-48.2 GHz, and 66-71 GHz were recognized for 5G network deployment.

The NTRA remains actively engaged in ongoing activities aimed at identifying additional frequencies for mobile technologies within the 4.4-4.8 GHz, 7.125-8.4 GHz, and 14.8-15.35 GHz bands as part of its preparations for WRC-27.

Furthermore, the NTRA follows ITU-led developments in mobile technology specifications, with particular attention to recent advancements toward 6G standards through the International Mobile Telecommunications 2030 (IMT-2030) program, targeting a release by 2030.

## Looking Beyond 2030: A Vision for the Next Decade

The NTRA's commitment to strategic planning extends beyond the current roadmap. Work has already begun on a long-term 2031–2040 spectrum strategy. This forward-looking study is focused on identifying and preparing future bands to ensure Egypt remains at the forefront of global technological evolution.

Candidate bands for the next decade include:

- Additional UHF bands for extended coverage.
- Expanded mid-band resources for continued capacity growth.
- mmWave spectrum for ultra-high-capacity and future 6G technologies.

This continuous forward planning approach ensures Egypt's digital infrastructure will align with global technological evolution and next-generation connectivity standards.

## Conclusion: Securing Egypt's Digital Future

The Mobile Spectrum Roadmap 2026–2030 is a cornerstone reform in Egypt's telecommunications policy. By introducing 410 MHz of new spectrum until 2039, and establishing a transparent five-year assignment framework, the NTRA has strategically positioned Egypt to:

- Sustain exponential data growth
- Accelerate nationwide 5G rollout
- Enhance service quality
- Strengthen investor confidence
- Lead regional digital transformation.

With this roadmap, Egypt is transitioning decisively from reactive spectrum assignment to proactive, strategic spectrum governance. The future of mobile connectivity in Egypt is secure, competitive, and firmly driven by innovation.

