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The Independent Communications Authority of South Africa (ICASA)
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Attention:
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And
Mr Manyaapelo Richard Makgotlho
Email: rmakgotlho@icasa.org.za

13 June 2025

Re: Response to ICASA´s Draft National Radio Frequency Plan 2025

Dear Sirs,

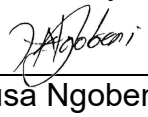
Huawei would like to thank ICASA for the opportunity provided to the company to comment on the **Draft National Radio Frequency Plan 2025**, published in the Government Gazette No. 52449 dated 4 April 2025.

In our view, ICASA has done a commendable job in capturing the decisions of WRC-23 in the document.

Huawei is the leading supplier of infrastructure equipment for the telecommunications industry globally and in South Africa, as well as being a major manufacturer of mobile handsets and other electronic consumer goods.

Huawei welcomes the opportunity to submit the following comments for your consideration and requests the opportunity to make an oral presentation. Please feel free to contact us if you have any question or require any further clarification.

Yours sincerely,



Mr. Musa Ngobeni — 13 June 2025 (Date)

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Comments from Huawei on ICASA's Draft National Radio Frequency Plan 2025

Huawei fully supports ICASA efforts in the regulatory process of developing an update of the National Radio Frequency Plan based on the outcome of WRC-23. We provide comments on selected spectrum bands herewith.

1. Comments on new IMT bands in the draft:

3 600-3 800 MHz

Huawei notes with appreciation for the progressive allocation of the 3.6 GHz band for primary mobile services in region 1 and its subsequent identification for IMT for South Africa at WRC-23, as this refined designation represents a pivotal milestone in modernizing the nation's mobile communications infrastructure, solidifying the band's strategic importance to broadband connectivity and economic empowerment.

In recognition of its far-reaching impact, we recommend that ICASA to consider developing a comprehensive Radio Frequency Spectrum Assignment Plan (RFSAP) for this band, as we believe that implementing this plan will ensure a transparent and efficient framework for spectrum management facilitate robust network expansion, and nurture innovation in mobile services. Ultimately, this initiative will drive South Africa's digital transformation and spur broader socio-economic development.

6425-7125 MHz (U6 GHz)

Huawei notes with appreciation that ICASA has indicated that the band 6 425-7 125 MHz shall be used for IMT as a typical application following progressive approach taken by WRC-23 to allocate this band for IMT. Moreover, this underscores South Africa's commitment to modernizing its mobile communications to improve the infrastructure and advancing digital transformation. This initiative is anticipated to strengthen broadband connectivity and provide wider socio-economic benefits.

With mobile data traffic growing rapidly, the upper 6 GHz band presents a valuable opportunity to expand network capacity, in which allocating this band to IMT is not only supporting the growth of 5G networks but also lays the foundation

for future technologies such as 6G, this proactive allocation will ensure South Africa remains competitive with regions like the Gulf, Asia, and North America, while effectively addressing the increasing demand for mobile data and network capacity. Furthermore, the strategic approach to allocating the upper 6 GHz band aligns with international recommendations, including ATU-R Recommendation 0051[1](July 2021), and corresponds with updates underway for the Africa Spectrum Allocation Plan (AfriSAP) and since the WRC-23, we have noted that similar initiatives have been successfully implemented in regions such as the Gulf, Latin America, and Asia Pacific. For example, the UAE, one of the first countries to offer 6 GHz mobile broadband, and Hong Kong, which concluded the world's first IMT auction of the upper 6 GHz band ahead of 2024.

Therefore, we support that South Africa allocates the upper 6 GHz band to IMT. This will be used for deployment of licensed, macro-cell mobile services at standard power levels, and offers the highest economic advantage in which the mobile networks are more likely to face capacity constraints, making additional spectrum in this band crucial for improving network quality and user experience, ultimately benefiting the broader economy.

2. Comments on existing IMT bands in the draft:

1 427-1 518 MHz(L-Band)

Huawei notes that 3GPP has defined multiple L-band configurations encompassing SDL (b32, b75, b76), TDD (b45, b50, b51), and FDD (b74) tailored to different wireless applications. Moreover, the Supplemental Downlink (SDL) and Time Division Duplex (TDD) are the two options that has been considered in the ICASA RFSAP. ICASA may have further consultation to decide the final configuration for this band.

4 800-4 990MHz

Huawei notes that this band was identified for IMT in South Africa since WRC-15. We recommend that ICASA considers indicating IMT as a typical application in this band as well as finalizing the development of a Radio Frequency Spectrum Assignment Plan (RFSAP) for the band.

[1]https://atuuat.africa/wp-content/uploads/2021/08/En_ATU-R-Recommendation-005-0.pdf

3.Comments on potential spectrum needs for public good:

Public Protection and Disaster Relief (PPDR):

The need for spectrum suitable to support the emerging broadband applications for Public Protection and Disaster Relief (PPDR) has been recognized for many years. Notably there would be coexistence of the existing PPDR narrow band communications technologies with technologies that require broadband for new services such as broadband data which includes but is not limited to mobile video reporting from field locations, body worn cameras and drone cameras as well as geographic location maps etc. To enable the provision of a secure, reliable, resilient, and dedicated radiocommunication network, the allocation of spectrum for broadband PPDR services, including the necessary quality of service required for PPDR applications should be considered.

Power Distribution Networks:

Globally, regulators have increasingly allocated spectrum to support a nation’s energy grid and ensure the evolution of the power distribution networks. The allocation of spectrum for power utilities should be considered to allow South Africa to better manage the growing energy demands, integrate renewable resources, and monitor key infrastructure in real time.

Future Railway Mobile Communication System (FRMCS):

GSM-R, a 2G+ system designed over 20 years ago, is set to become obsolete by 2030, leaving South Africa’s railways in need of a future-proof communication system. The Future Railway Mobile Communication System (FRMCS), the 3GPP-standardized successor, offers high data capacity, ultra-low latency, and multi-service convergence enabling real-time HD video, IoT integration, and augmented reality for maintenance. These capabilities are essential for real-time monitoring, automation, and improved safety. The allocation of spectrum for FRMCS should be considered to support the adoption of next-generation railway communications, unlocking greater efficiency, safety, and digital innovation in the rail sector.