

Tshiamo Maluleka-Disemelo

11 December 2025

The Chief Executive Officer

Independent Communications Authority of South Africa (ICASA)

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South Africa

CC: Mr Davis Kgosimolao Moshweunyane on (dmoshweunyane@icasa.org.za) and Mr Manyaapelo Richard Makgolho (rmakgolho@icasa.org.za)

RE: Second Draft of the National Radio Frequency Plan (NRFP-2025)

Dear Sirs,

The GSMA appreciates the opportunity to provide feedback on the second draft of the National Radio Frequency Plan 2025 (NRFP-2025). We commend ICASA for aligning the national framework with the ITU Radio Regulations, the outcomes of WRC-23, AfriSAP, and SADC plans, and for explicitly linking NRFP-2025 to South Africa's social and economic development goals.

The GSMA fully supports ICASA's commitment to utilising spectrum to advance access, digital inclusion, and economic empowerment, particularly for youth, women, persons with disabilities, and SMMEs, and to foster growth in rural and underserved communities. To effectively achieve these aims, our submission highlights three primary areas of focus:

1. Ensuring comprehensive and timely alignment with WRC-23 resolutions, including all applicable IMT identifications and relevant ITU footnotes, so that South Africa can benefit from international harmonisation, affordable devices, and rapid advancements towards next-generation networks.
2. Planning the availability of spectrum for IMT across low, mid-, and high bands under clear, investment-friendly conditions, enabling operators to scale 4G and 5G coverage and capacity, including in underserved areas.
3. Advocating for effective and reasonable spectrum pricing policies, recognising that spectrum is foundational to the mobile industry. Excessive upfront and recurring fees risk hindering network expansion, restricting coverage and capacity, and impacting retail prices.

The enclosed submission offers detailed observations and recommendations, including specific proposals to the NRFP-2025 and overarching pricing and licensing principles designed to assist ICASA in achieving the objectives articulated in the document.

The GSMA remains dedicated to a collaborative engagement with ICASA and other South African stakeholders and welcomes the opportunity to discuss these perspectives further at forthcoming public hearings. Please accept our highest considerations.

Yours faithfully,

**Angela Wamola,
Head Africa, GSMA**
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Alignment with WRC-23 resolutions

Spectrum is a key resource in closing the connectivity gap in South Africa. In the official notice, ICASA states that the draft NRFP “aims to deliver socio-economic benefits to citizens, foster the development of new industries, and create new job opportunities”, with an emphasis on stimulating growth “not just in urban areas, but also in underserved and underprivileged areas”. ICASA notes that, given South Africa’s geography, wireless is the most effective way to extend broadband, and that mobile broadband remains a priority; NRFP-2025 therefore incorporates additional globally harmonised IMT bands to support 5G/6G and “connecting the unconnected”.

The plan integrates WRC-23 and RR-24 outcomes, plus AfriSAP/SADC harmonisation, to maximise economies of scale, thereby making devices and services more affordable and supporting digital equity. The GSMA therefore welcomes ICASA’s efforts to align the NRFP to WRC-23 outcomes and future international and regional frameworks.

To build on the progress achieved and ensure a seamless integration of new spectrum allocations, the GSMA encourages ICASA to maintain transparent engagement with all stakeholders, streamline regulatory updates, and ensure that the practical implications of WRC-23 decisions are communicated effectively to industry participants. This proactive approach will help facilitate efficient adoption of updated frequency allocations and associated frameworks, thereby maximising the benefits for mobile broadband, satellite, and related services in South Africa.

Spectrum planning and next steps

The availability of additional spectrum is essential to advancing South Africa’s digital economy, also considering the above-mentioned goals of the NRFP-2025. International experience demonstrates that the timely assignment of harmonised spectrum bands facilitates technological development in mobile broadband, such as 4G, 5G, and future generations, leading to significant socioeconomic benefits.

Greater access to spectrum at the right time to the market players enables mobile operators to implement advanced technologies at scale, increasing network capacity, accelerating data speeds, and fostering service innovation. Expanding available spectrum also reduces deployment costs per bit, enhances spectral efficiency, and supports infrastructure investment, thereby improving sector competitiveness.

The second draft NRFP-2025 makes specific segments of spectrum bands available for IMT. The most relevant segments available and/or expanded for mobile broadband include:

Frequency Range (MHz or GHz)	Band
703-733 / 758-788 MHz	700 MHz
791-821 / 832-862 MHz	800 MHz
880-915 / 925-960 MHz	900 MHz
1427-1518 MHz	1500 MHz
1710-1785 / 1805-1880 MHz	1800 MHz
1920-1980 / 2110-2170 MHz	2100 MHz
2300-2400 MHz	2300 MHz
2500-2690 MHz	2600 MHz
3300-3800 MHz	3.5 GHz
4800-4990 MHz	4.8 GHz
6425-7125 MHz	Upper 6 GHz
24.25-27.5 GHz	26 GHz

Before adding comments to specific bands, the GSMA acknowledges the updates made to this document after our consultation responses to the first draft of the NRFP.

HIBS

A clear regulatory framework for High-Altitude platform stations as IMT Base Stations (HIBS) is essential to safeguard existing IMT networks and ensure consistent application of international rules in all bands including the service in the NRFP.

At present, there is no published RFSAP for the bands that South Africa intends to use for HIBS, leaving uncertainty around operational conditions and protection requirements. The draft NRFP references only ITU Resolution 213, which is not sufficiently specific on its own as two pfd limits are listed under 4.2. ICASA should state explicitly which limit applies.

Our recommendation is to adopt the limit applicable to HIBS that better protects IMT base stations to avoid unintended interference risks. In the absence of a dedicated RFSAP, ICASA could also streamline the process by including the relevant protection pfd values directly in the NRFP comments column. This simple clarification would ensure regulators, operators, and future planning processes clearly understand which limits apply, reducing the likelihood of misinterpretation or of incorrectly extending lower protection thresholds to other services such as D2D.

600 MHz

The 600 MHz band remains a valuable spectrum asset in the longer-term evolution of mobile broadband services, particularly in regions with wide-area rural coverage needs.

While the band has not yet been made available for IMT use in most African administrations, including South Africa, it is important for ICASA to begin evaluating its potential through national studies and stakeholder engagement. Given the increasing global momentum around repurposing the 600 MHz band, especially in the Americas and in the Middle East, South Africa should consider conducting a feasibility assessment on the reallocation of this spectrum for mobile broadband in the future. The GSMA suggests that ICASA considers studying the 600 MHz band current and future usage, in coordination with industry stakeholders, to augment future IMT services.

3.5 GHz

The 3.5 GHz band is mostly identified for IMT following WRC-23 (3.3-3.8 GHz). However, this band is currently shared with several non-IMT licensees, including fixed satellite services and point-to-point wireless systems. A revised RFSAP for this band is necessary in order to include the 3.6-3.8 GHz range, along with a national migration plan to transition incumbent users to other ranges, based on market demand.

ICASA should also outline a clear and transparent assignment process for the remainder of this band to IMT services. Migration timelines for non-IMT users and coordination strategies for other licensees must be included to ensure fair access and minimal interference.

Additionally, countries are moving beyond 3.8 GHz and planning future availability of the band to cater for a continued data usage growth and 5G growing needs. Looking into the expansion up to 4.2 GHz remains necessary.

4.8 GHz

We acknowledge that the 4800-4990 MHz band has been included as IMT and we commend ICASA. It currently has fixed links and other services, such as OB links and ENG in South Africa. It is recommended that this band be added to the FMP to guide the phased removal of existing services and support its future use for IMT. The development of an RFSAP for this band is necessary after the WRC-27 AI 1.7 identifications are considered starting at 4.5 GHz, which should include technical conditions, channel plans, migration schedules, and synchronisation guidelines.

6 GHz

The GSMA welcomes ICASA adopting the WRC-23 footnote and identification of the upper 6 GHz band for IMT. This follows a significant number of growing countries that have done so, now representing over 80% of the global population. The upper part of the band should be available for exclusive IMT use, in accordance with ATU and South Africa's position at WRC-23.

The GSMA believes that sharing studies have not yielded promising results and the risk of interference on IMT remains high if the band were to be shared with unlicensed services. As the band continues to be intensely used by fixed link services, there cannot be any deployment of other users until migration is complete (where required). Any deployment of RLAN in the upper 6 GHz at this stage could cause irreversible interference. The plan must clearly indicate that RLAN is not available for deployment and that after migration of fixed links is complete, the band is assigned to IMT.

Therefore, the GSMA strongly recommends keeping the 6.425-7.125 GHz range available for future licensed IMT services as the band represents the largest block of contiguous spectrum that can cater for future traffic growth and mobile technologies. Each new mobile generation has required significantly wider channel sizes to meet user demand.

While 5G networks currently utilise up to 100 MHz channels in mid-bands, future networks will require channels of 200 MHz per operator (and later 400 MHz)¹ to start delivering on the promise of ultra-low latency, high capacity, and enhanced reliability for advanced applications. Mid-bands, like the upper 6 GHz, are envisaged to provide city-wide coverage and cater for around 80% of indoor capacity in urban areas in future (where mobile is predominantly used indoors)². Along with this development, a migration plan for current users (satellite and fixed links) should be agreed with licensees via consultation.

Other licensing considerations

Spectrum is the essential input for mobile networks and, if priced and managed well, can help NRFP-2025 deliver on its goals of access, digital equity and economic opportunity. GSMA evidence shows that high spectrum costs and annual fees directly reduce network coverage, speeds and affordability, which would undermine these objectives if not addressed in parallel with the new plan.

In South Africa, 48% of consumers are covered by mobile broadband services and are not using them, compared to a global average of 38%. Around 1% of the population does not live within mobile broadband coverage. Affordability has been established as the key barrier to mobile broadband adoption, and high spectrum fees contribute directly to this.

¹ https://www.gsma.com/connectivity-for-good/spectrum/gsma_resources/vision-2040-future-spectrum-needs/

² https://www.gsma.com/connectivity-for-good/spectrum/gsma_resources/6-ghz-for-5g/

According to the GSMA's 2025 Global Spectrum Pricing report, global cumulative spectrum costs now account for approximately 7% of operator revenues - a 63% increase over the past decade - with some markets experiencing rates as high as 25%.

Notably, a 10-percentage-point increase in the spectrum cost-to-revenue ratio is linked to mobile network coverage that is up to 6 percentage points lower and download speeds that are roughly 8% slower for both 4G and 5G services³. The Effective Spectrum Pricing in Africa⁴ report further indicates that elevated spectrum prices can delay network deployment, diminish service quality, and contribute to higher consumer prices, particularly in developing regions, thereby adversely affecting affordability and digital inclusion.

Additionally, fair, competitive, and transparent spectrum licensing process are also essential to making spectrum available and should be informed by international best practices and regular stakeholder consultation.

Spectrum roadmaps are a key tool to realise these benefits. The GSMA encourages ICASA to set out what spectrum will be available and when over the next 5 to 10 years to ensure that sufficient spectrum is available under conditions that encourage investment, innovation, and the deployment of new networks and services. This should be created in consultation with industry and updated annually.

GSMA recommendations

To ensure the NRFP-2025 fully embraces and commits to delivering socio-economic benefits to citizens, fostering the development of new industries, and creating new job opportunities, the GSMA recommends ICASA focus on:

1. Ensuring comprehensive and timely alignment with WRC-23 resolutions, including all applicable IMT identifications and relevant ITU footnotes, so that South Africa can benefit from international harmonisation, affordable devices, and rapid advancements towards next-generation networks.
2. Planning the availability of spectrum for IMT across low, mid-, and high bands under clear, investment-friendly conditions, enabling operators to scale 4G and 5G coverage and capacity, including in underserved areas.
3. Advocating for effective and reasonable spectrum pricing policies, recognising that spectrum is foundational to the mobile industry. Excessive upfront and recurring fees risk hindering network expansion, restricting coverage and capacity, and impacting retail prices.

³ <https://www.gsmaintelligence.com/research/global-spectrum-pricing>

⁴ https://www.gsma.com/connectivity-for-good/spectrum/gsma_resources/spectrum-pricing-and-licensing-in-africa-driving-mobile-broadband/