

Satellite Internet and Namibia's Red Tape



A Nation Left Behind?

SATELLITE INTERNET AND NAMIBIA'S RED TAPE: A NATION LEFT BEHIND?

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1. EXECUTIVE SUMMARY

The world is becoming increasingly connected, with over **5.5 billion** people online today. Access to the internet is no longer a luxury but an essential driver of economic growth, education, healthcare, and social mobility. Yet, Namibia finds itself at a digital crossroads, grappling with outdated regulatory frameworks and policies that hinder access to modern telecommunications solutions. While Low Earth Orbit (LEO) satellite communication, led by operators such as **Starlink**, has the potential to revolutionise connectivity—especially for rural and underserved areas—Namibia's rigid and protectionist policies risk leaving the nation behind in the digital revolution.

This report examines the key legal, economic, and regulatory challenges affecting Namibia's telecommunications sector. It highlights three major concerns: **(1) CRAN's regulatory approach (as prescribed by statute), (2) the dominance of state-owned operators, and (3) barriers that prevent new market entrants from increasing competition and innovation.**

The report highlights the **glaring digital divide** in Namibia, exacerbated by monopolistic practices and bureaucratic red tape that serve entrenched interests rather than the broader economy. The **local ownership requirement** for telecommunications providers has emerged as a significant obstacle, creating an environment that prioritises rent-seeking over genuine economic growth and employment creation.

The study also examines how other African nations, including **Kenya, Botswana, and Nigeria**, have embraced satellite connectivity and foreign investment to enhance their digital ecosystems. These case studies serve as a stark contrast to Namibia's restrictive policies, demonstrating that **(1) liberalising the telecommunications market leads to lower costs, (2) improved infrastructure, and (3) wider access to high-speed internet.** With **Namibia's unemployment crisis worsening and economic stagnation deepening**, the need for **progressive, investment-friendly policies** in the ICT sector has never been greater.

The report concludes with a **clear policy roadmap** to transform Namibia's telecommunications sector. Recommendations include **(1) the removal of arbitrary local ownership requirements, (2) a more competitive licensing framework, and (3) encouraging private sector participation** to drive innovation. By embracing global connectivity solutions, e.g. Starlink and fostering a

competitive, transparent regulatory environment, Namibia can position herself as a leader in digital transformation rather than a nation stuck in regulatory paralysis. The choice is clear: **adapt and innovate—or risk falling further behind in an increasingly digital world.**

2. INTRODUCTION

Access to the internet is no longer a luxury—it is an economic necessity. Yet, Namibia lags in digital connectivity due to outdated regulations and restrictive policies. This report examines how modern satellite technology, particularly Starlink and other LEO satellite services, could transform Namibia's telecommunications landscape and bridge the digital divide.

The world today is hyper-connected. Globally, approximately 5.52 billion people use the internet. This represents about 68% of the global population.¹ This number is growing every year. It is fair to say that being connected is no longer a “nice-to-have” but rather a “must-have”. For better or worse, it is now an essential part of everyday life. Being connected to the internet, and telecommunications generally, means having access to job opportunities, improved education, improved scientific research, growing the economy, and participating in civic engagement. Conversely, lack of and limited connection means missing out on all these opportunities.

Telecommunications (a combination of the Greek word “*tele*” which means distance and the Latin word “*communicare*” which means to share) has come a long way since the invention of the telegraph by Professor Samuel Morse (in the early 1830s), the telephone by Alexander Graham Bell (in 1876) and Guglielmo Marconi's first wireless radio transmission (in 1897).

The first official telegraph message (in 1844) from Washington DC to Baltimore posed an existential question: “*What hath God wrought?*” (taken from the Book of Numbers 23:23). In modern parlance, this can be understood as an expression of wonder or marvel at something new and inexplicable, a miracle. There has been remarkable progress in global communications since those early breakthroughs. If any of those early inventors were alive today, and saw the approximately 7,000 Low Earth Orbit (LEO) satellites crisscrossing the night sky, what would they

¹ Statista, 2025

think? Presumably, they would have a few more questions. Turns out, they are not the only ones with questions: As telecommunication grows in complexity, so does the role of regulators.

Whilst Information and Communication Technology (commonly known as ICT) has come a long way, access to data is still unevenly distributed. Rural and remote areas do not enjoy the same internet access (especially broadband services) as urban areas. This is especially relevant in Namibia, which has a large rural population and expansive geographical features. In fact, with a population density of roughly four people per square kilometre, Namibia ranks as one of the least densely populated countries in the world.²

Across the globe, the telecommunications sector is a key driver of economic and social development. Namibia is no exception. In this digital age, it is impossible to grow an economy (and create jobs) without reliable and affordable voice, data, and internet connections. Namibia has made significant strides in modernising its infrastructure, expanding mobile and internet connectivity, and establishing regulatory frameworks to ensure competition, consumer protection, and service quality. However, challenges and restrictions remain. While (potential) new entrants, such as Starlink, seek to offer alternative solutions, regulatory (and policy) barriers have raised concerns about whether these restrictions serve a legitimate purpose or are aimed at protecting local incumbents, at the expense of the country as a whole.

Whether by policy design, regulatory failure, demographic destiny, or fate of geography - many Namibians are stuck on the “wrong” side of the digital divide, because they live far away from the country’s main ICT nodes and connection hubs. It is challenging and prohibitively expensive to provide ICT infrastructure (meaning 100% terrestrial fibre or cable coverage) in a country the size of Namibia, especially given its relatively small (but spread out) population and limited economic capacity. LEO satellite communication operators (like Starlink) promise to help bridge the digital divide, and to reduce barriers to internet access. But: is it hype or reality? Is Namibia missing out on a great opportunity?

² see <https://worldpopulationreview.com/country-rankings/countries-by-density>

3. SCOPE OF REPORT

This report examines the potential impact of LEO satellite communication operators on Namibia's current ICT environment and regulatory concerns. We also investigate how other African countries are dealing with this issue.

Although this report focuses on Namibia's ICT sector and communications regulator, it is not sensible to do so in isolation. Therefore, the report also articulates Namibia's broader / general socio-economic climate and investment policies. Do they assist or hinder Namibia's digital and economic development?

For ease of convenience, this report is divided into sections:

PART 1 deals with LEO satellite communication. What is it and how does it work? What is Starlink? What are some of the benefits and regulatory concerns raised in Africa?

PART 2 deals with Namibia's telecommunications environment. What does it look like? Who is the Communications Regulatory Authority of Namibia (CRAN) and what is its mandate?

PART 3 sets out the African Union's digital transformation strategy.

PART 4 identifies Namibia's self-imposed obstacles, such as the local ownership requirements for telecommunications operators. It also sets out Namibia's socio-economic challenges (particularly considering the latest labour force statistics and unemployment figures), and comments on general policy and investment laws that impact investors and may affect new telecommunication entrants into the market.

PART 5 concludes with recommendations.

This report mostly refers to Starlink because it is the most developed in terms of LEO operational readiness. Starlink is also the only LEO satellite communications operator (based on sources consulted) that applied for a telecommunications license to CRAN, which application remains under review. It should be noted that Starlink is by no means the only low-orbit satellite

constellation that promises to revolutionise global internet access. Amazon's Kuiper and other projects (working on the same, similar, or new/novel ideas) are also in (or under) development by a variety of private companies and state-sponsored actors. This report should not be seen as an endorsement (or criticism) of any ICT service provider. The point is simply that there are foreign and/or alternative ICT providers knocking on the door or who may soon want to enter the Namibian market. Is Namibia ready or being left behind?

4. PART 1 – SATELLITE COMMUNICATIONS IN GENERAL

4.1. What Is Starlink, And How Does LEO Satellite Communication Work?

In 2019, SpaceX launched its first commercial satellites into space and kick-started Starlink. According to its website, *"Starlink is ideally suited for areas where connectivity has been unreliable or completely unavailable"*. It goes on to state *"People across the globe are using Starlink to gain access to education, health services and even communications support during natural disasters"*. Its stated mission is *"to provide high-speed, low-latency connectivity across the globe"* and it operates *"the world's largest satellite constellation, with a rapidly-growing user base in 37 countries and counting"*.³

The idea with LEO satellite communication is to avoid difficult terrain and expensive terrestrial/physical ICT infrastructure. Instead, data is beamed via radio signals (or lasers) to and from a large constellation of low-orbit satellites. Ground stations broadcast signals to satellites in orbits, which in turn relay the data back to the Starlink users on Earth. For customers (especially in remote locations), the attraction is obvious: All they need (apart from a subscription, because nothing in life is free) is a small antenna, a router, and a few cables and they are good to go.

Unlike traditional satellite telecom and internet companies which utilise one or two large satellites in geosynchronous earth orbit (GEO) at approximately 22,000 miles above the surface (also called "high orbit") to broadcast their signal to a large portion of a continent, Starlink takes a different approach, employing just under 7,000 small "CubeSat" satellites orbiting the earth in

³ <https://www.starlink.com>

LEO at around 340 miles up. This has some inherent advantages, chiefly a huge increase in download/upload speeds and a monumental improvement in latency over previous satellite internet services.

As pointed out by the European Space Agency: *“To guarantee continuity of service [using LEO], a constellation of [multiple] satellites would have to be deployed. LEO telecom systems may require 48, 66, 77, 80 or even 288 satellites to provide the required services. Several of these systems have been deployed to provide communications to mobile terminals. They use a relatively low frequency, the L- & S-bands (1.5-2.5 GHz), which is in the same range as the frequencies used by GSM mobile networks. The fact that the antennas are not very selective is a plus for them: no careful tracking of the satellite is then needed. Also, the low altitude minimises the delay due to signal travel time and reduces the power needed to establish communications”*.⁴

4.2. Concerns Surrounding Starlink Operating in Africa

Starlink has faced several regulatory obstacles as it rolls out services across Africa. There are different (real or perceived) and sometimes country-specific reasons for this, but some common themes have emerged which can broadly be categorised as follows:

Local monopoly protection: Established telecommunication companies have mixed reactions to LEO operators like Starlink. There seems to be a fear (not entirely unfounded) that existing investments in terrestrial infrastructure could be at risk if most users switch to LEO operators. African Business reports that there are concerns that *“the global company has an unfair advantage due to its limited investment in local network infrastructure”* and that *“high-speed connectivity, including in remote areas, makes Starlink a compelling alternative to traditional terrestrial internet providers”*.

The counter argument from other experts is that *“overcoming cost barriers associated with satellite internet technology could be instrumental in connecting millions of Africans who lack access to fast, reliable internet. This calls for strategic partnerships between LEO satellite*

⁴ https://www.esa.int/Applications/Connectivity_and_Secure_Communications/Orbits

*operators such as Starlink and local telecom companies to deliver affordable and reliable internet to underserved areas”.*⁵

Safety and security concerns: There is a (real or perceived) fear amongst regulators that they will lack control over what content is being shared. For example, in April 2024, Starlink was disconnected in Cameroon following a government order where the local regulator said that Starlink is *“operating without a license and posed a threat to national security and fair competition”*⁶. There was criticism that this amounted to anti-competitive behaviour and Douala-based industry veteran Rebecca Enonchong argued that *“the government was out to protect the state telecom monopoly Camtel”*. She went on to say that Camtel has impeded the progress of the industry by purchasing too little capacity from undersea cables and reselling at exorbitant prices to other telcos.⁷

The common theme, as reported by Semafor, seems to be that *“Regulators across the continent are worried about Starlink because they want control over the content being shared, industry analysts say. This has been a recurring theme of concern for African governments since the rise of the internet and, in particular, social media. Starlink’s satellites have no physical infrastructure or official presence in the countries, meaning it isn’t possible to turn off the internet. Similarly, Starlink can’t be held responsible by governments for content transmitted over the signals. Officials are also concerned about the company reaching their citizens without paying taxes or regulatory fees. Indeed, this has prompted criticism outside Africa as well”*.

Local ownership restrictions: In September 2024, Independent Communications Authority of South Africa (ICASA) chairperson Mothibi Ramusi, gave an interview wherein he suggested that ICASA has yet to receive a formal application from Starlink for its services to operate in South Africa.⁸

There have been reports that the main hold-up is linked to South Africa’s BEE legislation. Mr. Ramusi seemed to allude to this when he confirmed that *“when we issue those licences, there*

⁵ Yieke, L., African Business, 2024 - <https://african.business/2024/11/technology-information/starlinks-aggressive-push-in-africa-keeps-telcos-on-high-alert>

⁶ Kone, S., The Africa Report, 2024

⁷ Quadri, S., Semafor, 18 July 2024

⁸ <https://www.itweb.co.za/article/itweb-tv-why-starlink-isnt-available-in-sa-yet/rW1xLv5nYjP7Rk6m>

are specific conditions. There are issues in this country when you talk about black empowerment, to an extent that there's a 30% BEE requirement – it's a policy".

In some countries, local ownership requirements have been waived or circumvented. In Zimbabwe, President Emmerson Mnangagwa announced in May 2024 that its telecom regulator approved the licensing of Starlink (Reuters, 2024). This appears to have caught the local regulator off-guard. Reportedly, the license was approved after Starlink agreed to an exclusive partnership with IMC Communication, a telco owned by Mnangagwa's controversial friend Wicknell Chivayo. Veteran Zimbabwean journalist Tendai Mbofana, criticising Mnangagwa for approving Starlink's application *"without going through the proper channels"*.⁹

In Kenya, a 30% local ownership requirement for telcos *"was waived after reaching a deal with President William Ruto to boost high-speed internet in the country"*.^{10 11}

4.3. Current Status of Starlink Operations in Africa

According to Business Insider Africa:

"Elon Musk's Starlink made its African debut in January 2023, with Nigeria as its first launch site. The next-gen satellite internet provider promised to revolutionise high-speed internet connectivity in Africa's most populous nation, with ambitious plans to expand across the continent. Starlink also pledged to deliver low-latency internet to areas where connectivity is either unreliable or non-existent. By October 2023, the service was officially available in seven African countries: Nigeria, Kenya, Mozambique, Rwanda, Malawi, and Zambia. Since then, Starlink has extended its reach to a total of 13 African countries, including Mauritius and Sierra Leone. Despite its relatively high cost, Starlink's network of low Earth orbit (LEO) satellites provide coverage almost anywhere on the planet, making it a valuable option even in rural villages where broadband access is limited. However, its journey in Africa has been far from smooth. The continent, where only 40% of the 1.3 billion people have internet access—the lowest rate in the world—presents significant regulatory challenges for Starlink. For example, on August

⁹ Mbofana, T., 2024. <https://www.thezimbabwean.co/2024/05/is-starlink-going-to-accept-a-questionable-license-in-zimbabwe/>

¹⁰ Kaberia, J., CIO Africa - <https://cioafrica.co/boost-for-starlink-in-kenya-after-meeting-with-president-ruto/>

¹¹ <https://www.semafor.com/article/07/18/2024/elon-musks-starlink-battles-africa-regulators>

*14th, 2023, South Africa banned the import of Starlink kits, leaving the country cut off from SpaceX's satellite internet. Despite its presence in neighbouring countries, South Africa, the region's largest economy, has yet to join Starlink's network."*¹²

List of African Countries where Starlink is operational since 2024¹³¹⁴

#	Country	Launch date
1	Nigeria	January, 2023
2	Rwanda	February, 2023
3	Mozambique	June, 2023
4	Kenya	July, 2023
5	Malawi	July, 2023
6	Benin	November, 2023
7	Zambia	November, 2023
8	Eswatini	December, 2023
9	Sierra Leone	June, 2024
10	South Sudan	July, 2024
11	Madagascar	July, 2024
12	Botswana	August, 2023
13	Ghana	August, 2024
14	Liberia	January 2025
15	Cape Verde	December 2024
16	Burundi	September 2024
17	Zimbabwe	September 2024
18	Chad	November 2024
19	Mauritius	(status uncertain)

¹² Agbetiloye, A., 02 September 2024, <https://africa.businessinsider.com/local/markets/list-of-african-countries-where-starlink-is-operational-in-2024/9gklgg9>

¹³ Business Insider Africa, 2024 - <https://africa.businessinsider.com/local/markets/list-of-african-countries-where-starlink-is-operational-in-2024/9gklgg9>

¹⁴ https://www.linkedin.com/posts/benmacwilliams_starlink-is-now-live-in-liberia-our-activity-7283275306705080320-QC4s?utm_source=share&utm_medium=member_desktop&rcm=ACoAAAPImAYB6N0acoHO8I_lgdkA96Bz5Muh0fA

4.4. The Way Forward

Despite the concerns raised above, there is also recognition that LEO satellite operators are a critical cog in the wheel to a more equitable digital future. There is therefore appetite from many sectors to link up with LEO operators like Starlink.

For example, Mazen Mroué, the chief technology and information officer at MTN Group, is quoted as saying:

“Time is of the essence, so we recognise that we cannot do it alone. Partnerships are essential. In recent years we have helped narrow coverage gaps in rural areas by collaborating with several rollout partners and by deploying new technology using OpenRAN. To complement our terrestrial network – where the terrain can be difficult for radio sites and backhaul transport and sparse population distribution often makes regular cellular rollout uneconomical – we are now exploring the skies. Specifically, we are partnering for low earth orbit (LEO) satellite connectivity to connect the unconnected, extend mobile connectivity to more rural and remote areas and improve resilience. In this way, we are working to achieve our goal of 95% broadband population coverage across our footprint by 2025, from 88% in 2022. And in the longer term, we are determined to achieve universal access.

LEO satellites typically orbit the Earth at altitudes of between 160 and 2 000 km, making for shorter orbital periods (of between 90 minutes and a few hours) which is good for applications that need rapid data communication or frequent re-visits of specific areas. The lower altitude contributes to lower signal travel times, resulting in lower latency. This is crucial for real-time communication, video conferencing and online gaming. And the sharp fall in the cost of launching 1kg of payload into space (from US\$85 000 in the 1980s to around US\$1 000 now) has added to the attractiveness of using LEO satellites”.¹⁵

LEO satellite communications systems appear to be a gamechanger in the telecoms industry. Those who adopt this technology first, have a distinct advantage, while those lagging in adopting this technology lose out on vast benefits.

¹⁵ <https://www.mtn.com/leveraging-satellite-partnerships-to-accelerate-digital-inclusion-in-africa/>

5. PART 2 - NAMIBIA'S TELECOMMUNICATIONS ENVIRONMENT

5.1. Namibia's Telecommunications Market

5.1.1. Introduction

Across the globe, the telecommunications sector is a key driver of economic and social development. Namibia is no exception. In this digital age, it is impossible to grow an economy (and create jobs) without reliable and affordable voice, data, and internet connections. Namibia has made significant strides in modernising its infrastructure, expanding mobile and internet connectivity, and establishing regulatory frameworks to ensure fair competition, consumer protection, and quality of service. However, challenges and restrictions remain. While (potential) new entrants, such as Starlink, seek to offer alternative, and in some areas vastly improved solutions, regulatory barriers have raised concerns.

These concerns include amongst other, whether these restrictions serve a legitimate purpose or are aimed at protecting local incumbents, even enforcing an institution of extraction, whereby a few may benefit at the expense of the country.

Namibia has a reasonably well-developed telecommunications sector dominated by mobile services, with a high mobile penetration rate compared to fixed-line services. However, challenges such as rural connectivity gaps, adequate competition, and affordability remain.

Two government and partly government owned players dominate the market: Mobile Telecommunications Limited (MTC) and Telecom Namibia (Telecom). Telecom is wholly owned by the government of Namibia via Namibia Post Holdings Limited (NPHL) and MTC is listed on the NSX and majority-owned by NPHL.

The practical effect is that MTC and Telecom operate as quasi-monopolies. This arguably limits competition and innovation. There are other players operating in Namibia, including Paratus Namibia (Paratus) which is a fast-growing private-sector telecom company offering fibre and broadband solutions as well as several smaller Internet Service Providers (ISPs).

5.1.2. Who Regulates Namibia's Telecommunications Services?

CRAN is the regulator established under section 4 of the Communications Act (No.8 of 2009) to regulate, supervise and promote the provision of telecommunications services and networks, broadcasting, postal services and the use and allocation of radio spectrum in Namibia. CRAN replaced the previous regulator, the Namibia Communications Commission, which was operational from 1992 until 2008.¹⁶ Although a regulator, CRAN is not independent from government, as explained in more detail further down.

5.1.3. What does Namibia's Current Telecommunications Market Look Like?

Namibia's telecommunications market is set out in CRAN's latest ICT Sector Market Report for 2023 published in November 2024 (the CRAN Report).¹⁷

The key issues are set out below. Quotes below are taken directly from the CRAN Report.

5.1.3.1. The State Still Dominates the ICT Sector

The local market is dominated by the state which *"owns the entities responsible for 82% of telecommunication assets and 80% of the sector's revenue"*. The state owned (or partially state owned) licensees are Telecom, MTC and PowerCom.

Private sector revenue and investment is growing, but most telecommunication assets are owned by the state.

Private sector's revenue has grown from 16% in 2018 to 20% in 2023 and *"37% of additions to property, plant & equipment (PPE) were undertaken by the private sector in 2023 compared to 63% of the public sector. This reflects an increasing revenue share going forward, 35% of the private sector additions to PPE were from Paratus in 2023. Paratus is the third-largest licensee by revenue, and the largest private sector licensee, only made up 8% of revenues in 2023. At the same time, its assets made up 15% of ICT sector assets"*.

¹⁶ <https://www.cran.na/about-us/>

¹⁷ Available at <https://www.cran.na/publications/>

It should come as no surprise that the state (via Public Enterprises) owns 80% of the telecommunications sector assets since it is ultimately funded by taxpayers' money. The private sector only owns 20%, the bulk of which (15%) is owned by Paratus.

5.1.3.2. Revenues / Financial Performance

As is often the case, public sector entities do not fare as well as private sector entities in terms of financial performance because there is less incentive to innovate and survive when the taxpayer ultimately foots the bill. Inefficiencies of Telecom and MTC are passed on to customers without such customers having a choice, at least 80% of the time.

Telecom Namibia's *"revenues declined by 9% at company level from 2018 to 2023. Mobile revenues grew by 78% and have nearly caught up with fixed voice and interconnection revenues which stood at NAD 247 million in 2023. Data connectivity remains the primary revenue source for Telecom Namibia, albeit with a 12% decline since 2018. At the same time, the shareholder's equity declined by 24%, dropping from NAD 777 million in 2018 to NAD 593 million in 2023. When expressed in USD terms, Telecom Namibia Company's total revenue declined by 34%, the total assets reduced by 25% and the shareholders equity fell by 45% since 2018. Telecom Namibia did not maintain its modest profit from the 2020 to 2022 period and made a loss of NAD 40 million in 2023"*.

PowerCom had a modest increase in revenue (from NAD 43 to NAD 65 million) between 2018 and 2023 but *"the operator recorded a losses (sic) since 2021. In 2023 Powercom, suffered a loss of NAD 5 million. Its shareholders equity reached a new low in 2023 with NAD 533 million, its liabilities are (sic) exceeding its assets by over half a billion Namibian dollar. Revenue as share of its assets was 5.9% in 2023 compared to 70% of Telecom Namibia (group or company). The negative shareholders equity of Powercom has to be absorbed by Telecom Namibia's group results"*.

MTC is certainly faring better than Telecom and Powercom. It grew its revenue in Namibian Dollars but *"when expressed in USD the operator has experienced a decline. MTC's revenues increased by 22%, net profits remained stable and its shareholders equity increased by 38%. However, in USD terms, MTC's shareholders equity shrank by 1%, its revenues by 12% and its net*

profit by 28% since 2018. With a profit margin of 26% compared, an EBITDA margin of 49.5% and a return on equity of 30%, MTC is one of the most profitable mobile operators in Africa."

The report continues, "MTC's investment as share of revenue dropped from 11.6% in 2018 to 10.8% in 2023. Its investment into network equipment as share of revenue increased to 10% in 2023 compared to 7% in 2018. The additions to network infrastructure and equipment in 2023 amounted to USD 17 million, compared to USD 13.3 million in 2018. This could be due to the license conditions placed on licensees awarded the 700 and 800 MHz of rolling out new towers or upgrading existing towers".

The CRAN Report also points out that MTC is underleveraged and could expand its current business model (and increase profitability) by replacing equity with debt (which is generally a cheaper source of financing).

The CRAN Report points out that "Paratus increased its revenue by 65% and its assets by 287% since 2018. Paratus' profit margin remains modest at a 5% but its return on equity increased to 35% on the back of a substantially decreased shareholders equity. Paratus is expanding its business based on debt with liabilities growing faster than assets. Revenue as share of assets dropped from 97% in 2018 to only 42% in 2023, much lower than that of Telecom Namibia Company of 67% and MTC at 77%. In USD terms, Paratus shareholders equity declined by 47%, while its revenues grew by 18% since 2018".

5.1.3.3. Subscription Profiles

There is, consistent with global trends, a decline in landline subscriptions (down 16% since 2018) and an increase in high-speed fibre subscriptions (up 755% since 2018).

The CRAN Report specifically notes that *"Fibre-to-the-Home (FTTH) has continued its upward trajectory, reflecting broader trends in digital infrastructure development. By the end of 2023, FTTH accounted for 27% of fixed broadband subscribers, more than double its share since 2018. Despite this growth, overall adoption remains constrained by the limited availability of fibre networks and the high costs associated with installation and acquisition of customer premise equipment. Meanwhile, landline subscriptions continue to decline. This trend is consistent with*

global patterns, where mobile technologies are increasingly favoured over traditional fixed-line services. Also, landlines may not be required for FTTh broadband access, while they are required for xDSL”.

As of December 2023, there were only 1,353 satellite subscribers (a modest increase from the 960 subscribers in December 2018) but this may soon change. The CRAN Report notes that *“Satellite broadband subscriptions have remained relatively low. This may change with the entry of potential players such as Low Earth Orbit (LEO) service providers. This could reshape the market and increase accessibility, particularly in rural and underserved areas”*. There seems to be at least tacit acceptance by CRAN that low earth orbit providers (such as Starlink) could be a game changer for Namibia.

5.1.3.4. SIM Cards

Active SIM cards are declining. The CRAN Report notes that *“the total number of active SIM cards declined by 6% in 2023. The proportion of mobile broadband SIM cards grew from 61% in 2018 to 67% in 2023. However, this marks a decline compared to 2022, largely driven by a reduction in active SIM cards. Factors contributing to this decline include the propensity for consumers to subscribe to multiple prepaid bundles from different operators, such as Aweh and Jiva and the implementation of SIM card registration requirements, which may have led to the deactivation of inactive or redundant SIM cards. Telecom Namibia’s combined market share of active SIM cards stood at 16.5% in 2023. Telecom Namibia saw a 1% drop in postpaid subscribers but doubling in prepaid subscribers since 2018”*.

5.1.3.5. Mobile Voice Declining, Data Increasing

Namibia has come a long way since voice over internet protocols (VoIPs) were regarded by companies such as Telecom as being illegal. To show the contrast of our reality today, where Whatsapp calls and Microsoft Teams Meetings for instance are dead normal, as opposed to 20 years ago, we provide some quotes from an article in The Namibian newspaper dating back to 2006:¹⁸ *“FIVE foreign nationals were arrested at Walvis Bay on Saturday for allegedly operating*

¹⁸ <https://www.namibian.com.na/five-arrested-at-walvis-for-illegal-net-phone-service/>

illegal Voice Over Internet Protocol (VoIP) services. Officials from Telecom Namibia's Fraud Monitoring Unit, assisted by the Namibian Police, swooped on three Chinese-owned shops at Walvis Bay. ... they also seized the equipment used to offer cheap international calls via an internet connection. 'The suspects were caught red-handed while attempting to sell the service to a member of the public. It is evident that for these illegal operators, the provision of VoIP to the public is an opportunity for ill-gotten income rather than an opportunity for better service'. The suspects will be charged with violating the Postal and Telecommunication Act of 1992'. By using such devices together with VoIP gateways, multiplexes, modems and so on to bypass Telecom switches, the illegal operators are undermining the country's laws as well as the viability of Telecom's network by not paying Telecom Namibia right compensation".

From the past, laws, and Telecom's actions in cases like the one illustrated above, protectionist policies (at the time at least) did not keep track with international developments in the telecommunications space. Instead, a zealous protection of revenue was preferred.

Today, data is reducing mobile voice revenue. The CRAN Report notes that *"Revenues from mobile voice and SMS services continue to decline, while data revenue continue to grow leading to an overall increase in service revenues. The share of total mobile service revenue derived from data increased significantly, rising by 24%, from 46% in 2018 to 70% in 2023. This shift highlights the growing importance of data services as consumer demand for Internet connectivity and digital applications expands. Overall, mobile service revenues increased by 11% over the period, though when measured in USD, this growth was more modest, registering a 2% increase."*

The report goes on to state that *"In 2023, overall data revenue has demonstrated substantial growth, increasing by 53% over the past five years, largely due to increased mobile and fibre data consumption. Mobile data revenue dominated the data market, accounting for 76% of all data revenues, underscoring the growing reliance on mobile connectivity. ADSL's share of total data revenue fell sharply, from 18% recorded in 2018 to 9%. Conversely, FTTH revenue doubled its share, rising from 5% in 2018 to 10% in 2023, driven by rising demand for faster, more reliable broadband solutions among households and businesses"*. Fortunately, nobody is getting arrested these days for using data to make calls.

5.1.3.6. MTC Dominates Mobile Traffic

Approximately 97% of outgoing mobile traffic for both voice and SMS services are with MTC. The CRAN Report notes that *“this high concentration underscores MTC’s entrenched position within Namibia’s mobile communications market, reflecting limited competitive (sic) from Telecom Namibia and Paratus in these service segments”*.

5.1.3.7. Mobile Voice and Data Increases, SMS and Landlines Declines

The CRAN Report notes that *“between 2018 and 2023, outgoing mobile minutes saw a substantial 60% increase, while SMS usage and traditional landline services experienced a decline. These trends underscore the diminishing relevance of landlines for consumers and the gradual replacement of SMS by Over-The-Top (OTT) applications such as WhatsApp and other messaging platforms. This shift is also evident in the reduced volumes of international voice traffic, both incoming and outgoing, indicating a broader evolution in consumer communication preferences towards more flexible, data-driven alternatives. These changes reflect a global trend towards digital communication channels, as consumers prioritise convenience and cost-effectiveness.”*

5.1.3.8. Network Infrastructure

4G population coverage stands at 88.4%. However, some regions, notably Kunene, Omaheke, and Kavango West regions, are still left behind and fall below the 2022 targets in terms of Broadband Policy objectives.

5.1.3.9. Broadband Speeds

Namibia is slipping in terms of broadband speed. The CRAN Report notes that *“Namibia ranks 28th [out of 46] in Sub-Saharan Africa for broadband speeds in 2024, down from its 20th position in 2023, indicating a concerning trend in digital infrastructure performance. Globally, Namibia has also slipped to the 186th spot, dropping significantly from 169th in 2023, underscoring a competitive lag in the international broadband landscape. Within the Southern African Development Community (SADC), South Africa leads the region, showcasing a stronger*

performance in broadband speed and connectivity infrastructure. This regional disparity highlights the urgent need for Namibia to address its digital connectivity objective to support economic growth and participation in an increasingly digital global economy”.

As the bulk of our telecommunications infrastructure belongs to the government (directly and indirectly), and the bulk of our telecommunications services providers are owned by government (directly and indirectly), Namibia’s failure to provide acceptable broadband speed can only be attributed to government policy and the government monopolies (or at least quasi-monopolies).

5.1.3.10. Mobile Price Benchmarking

Prices (based mostly on prepaid service) have come down somewhat but there are still several African countries where they are cheaper. The CRAN Report notes that *“The price analysis is mostly based on prepaid prices because many of subscribers in Namibia are prepaid. Prepaid products with varying validities are made comparable by calculating the monthly cost. Unlimited data packages are capped at 200GB per month. Three different methods are used to benchmark Namibia’s broadband prices against other African countries Namibia’s broadband prices finally came down from the first quarter of 2023...MTC and Telecom Namibia released new products and promotions dropping the lowest price for a 1GB monthly usage basket considerably. MTC’s cheapest product for the 1GB basket is now the Yo Data S, which costs NAD 15 per week and comes with 500MB. Per month, users get 2GB for about NAD 74 including VAT. Telecom Namibia reduced its prepaid top-up rates. 1GB per month costs NAD 15 excluding VAT, or NAD 17.25 including VAT. The price drop was a result of the public consultation held by CRAN at the beginning of 2023.*

Namibia jumped in the African Affordability ranking from 46th cheapest in Q1 2022 to the 9th cheapest country in Q1 2024 for 1GB per month. Namibia is again in the competitive field, the top one-third of African countries. Fourteen countries were cheaper in Africa than Namibia for the 10GB and 20GB per month usage. Namibia ranked 12th for the 500MB per month in Africa”.

5.1.3.11. Mobile Phone Ownership

Namibia's urban population owns more mobile phones than its rural population. The CRAN Report notes that *"a significant portion of the rural population three years and above, 58%, did not own a mobile phone. 28.5% of Namibians 3 years or older owned a smartphone in 2023. In urban areas, 42% of Namibians owned a smartphone compared to rural areas of only 15%, highlighting a digital divide between urban and rural communities in terms of mobile device ownership"*.

Namibia continues to lag substantially on global figures. As of 2023, approximately 80% of the global population aged 10 and over own a mobile phone.¹⁹ Over 55% of the world's population own a smartphone.²⁰ The assumption is that poverty, combined with limited to very limited coverage in rural areas, contribute to Namibia's lag.

5.1.3.12. Temporary Freeze - New Telecommunication and Broadcasting Service Licences

CRAN temporarily postponed awarding new Telecommunication and Broadcasting Service Licences from 01 October 2022 until 30 September 2023. According to CRAN, *"the stand still period was introduced to allow for collection of data for the Market Saturation Study to be conducted. The study is designed to identify the key reasons behind the failures experienced by new Licensees in both the broadcasting and telecommunications industries. By thoroughly examining these factors, the study will make recommendations aimed at promoting a stable and vibrant ICT sector"*.

As far as could be established, CRAN did initiate a Market Saturation Study to investigate the challenges faced by new licensees in the broadcasting and telecommunications sectors. A draft of this report was released in June 2023, inviting written comments from service licensees until

¹⁹ International Telecommunication Union (ITU). (2024). "Facts and Figures 2024." This report indicates that 80% of individuals aged 10 and over own a mobile phone. Retrieved from <https://www.itu.int/en/mediacentre/Pages/PR-2024-11-27-facts-and-figures.aspx>

²⁰ GSM Association (GSMA). (2023). "Mobile Internet Connectivity Report 2023." This report states that over 55% of the global population, approximately 4.3 billion people, own a smartphone. Retrieved from <https://www.gsma.com/newsroom/press-release/smartphone-owners-are-now-the-global-majority-new-gsma-report-reveals/>

24 July 2023. Following this, CRAN conducted two public hearings to discuss the findings and gather further input.

The draft report highlighted the significant dominance of state-owned enterprises in Namibia's ICT sector, with the government controlling 89.4% of the assets. It suggested that privatising entities like Mobile Telecommunications Company (MTC) and Telecom Namibia could enhance competition, promote market efficiency, and benefit consumers.

As of February 2025, there is no publicly available information indicating that CRAN has published a final version of the Market Saturation Study. In August CRAN caused to be gazetted the Draft Determination of Dominant Position in the Telecommunications Market in Government (Gazette No. 8416).

In November 2024, CRAN published the CRAN ICT Sector Market Report 2023. This report does not appear to be directly related to the Market Saturation Study. Although it makes no direct reference to a "Market Saturation Study," the report does mention challenges in subscriber growth, market shifts, and broadband adoption trends, which might be related to saturation dynamics. The report includes financial performance analyses of key ICT sector players but does not explicitly discuss the failure of new entrants in the telecommunications or broadcasting sectors. There are references to regulatory interventions, affordability trends, and competition in the ICT sector. However, these are broad discussions rather than a focused study on market failures. To conclude, no mention is made of privatisation as was the case in the 2023 draft report.

5.1.3.13. CRAN 2023 and 2024 Integrated Annual Reports

CRAN's latest published annual reports recognise the importance of digital transformation for economic growth. It is also part of Namibia's national development goals as set out in Vision 2030, the Fifth National Development Plan (NDP5), and the Harambee Prosperity Plan (HPP II).

CRAN identifies key license information in Namibia (from 2021 to 2023) as follows (page 9 of the report):

Indicator	Measures (‘21)	Measures (‘22)	Measures (‘23)
Mobile operators (MTC Paratus Telecom UCOM)	4	4	4
Fixed line operators (Telecom Namibia)	1	1	1
International voice gateway Licences	1	1	1
International data gateway Licences	3	3	3
Mobile subscribers	2,903,446	2,766,481	2,156,574
Fixed line subscribers	87,588	85,802	85,802
Fixed teledensity	3.37	3.25	2.66
Mobile teledensity	111.84	104.72	No data
Fastest mobile internet access	Fibre	Fibre	Fibre
Internet users per 100 inhabitants	78.97	72.85	66.0
Internet users	2,050,075	1,924,521	1,723,818
Broadband internet subscribers per 100 inhabitants	78.94	69.02	No data

Most measures worsened from 2021 to 2023. The substantial decline in measures such as “internet users” and “internet users per 100 inhabitants”, and the lack of 2023 data on “mobile density” and “broadband subscribers per 100 inhabitants”, is a strong indication that Namibia finds herself in a crisis when it comes to the telecommunications industry. Most likely for the various reasons discussed in this report, most notably government monopolies, Namibia is regressing, quite fast, when it comes to access to digital communication.

5.1.3.14. Commercial / Community Broadcasting Services and Telecommunications Licensees

During the period of the 2023 audit review, CRAN noted that there were 27 Commercial Broadcasting Service Licensees and 21 Community Broadcasting Services Licensees actively operating in Namibia.

Insofar as telecommunications licenses are concerned, there are 39 Class Comprehensive Telecommunication Service Licenses in Namibia, 13 Non-profit ECS/ECNS, eight Network Facilities, six ECNS and one ECS.

5.1.3.15. Spectrum Licenses

Spectrum licenses are essentially permits (licenses) granted by a government agency that allow an operator to exclusively use a specific range of radio frequencies (a "spectrum") within a defined geographic area for transmitting telecommunications signals, such as for mobile phone networks, internet access, or broadcasting. It gives licensed operators the right to operate wireless services within a designated frequency band and location. Typically, spectrum licenses are acquired by auction and subject to specific conditions regarding usage and coverage requirements (because it's a scarce resource). As per the latest report CRAN has awarded a total of 26 Mobile Spectrum Licenses, 96 Fixed Spectrum Licences, 33 Satellite Licences, and 471 FM Analogue Spectrum Licences.

CRAN has also awarded 33 Digital Terrestrial/Analogue Television and 659 other Spectrum Licences. CRAN also noted that it is enhancing its spectrum monitoring capabilities by installing new monitoring equipment to enable *"more efficient monitoring of spectrum usage within the borders of the Republic of Namibia and ensures compliance with the spectrum regulatory framework"*.

5.1.3.16. Market Dominance in Namibia's Telecommunications Sector²¹

Recent findings by CRAN indicate that the industry remains highly concentrated, with Telecom Namibia and MTC dominating critical infrastructure and services.

CRAN published its determination of dominant position in the telecommunications market report in the Government Gazette No 8416 on 15 August 2024 (the "Dominant Market Position Report"). Market dominance has significant consequences, which include:

- Crowding out private sector competition.
- Suppressing innovation.

²¹ Sources in this subsection include:

- Government Gazette of Namibia (15 August 2024, No. 8416)
- Communications Act, 2009 (Act No. 8 of 2009)
- CRAN Dominance Determination Report (2024)
- International Telecommunication Union (ITU) Market Studies
- EU Guidelines on Telecom Competition Policy (2018)

- Keeping costs high for consumers and businesses; and
- Slowing infrastructure development and rural connectivity expansion.

The Dominant Market Position Report summarises key findings and presents policy recommendations to open Namibia's telecom market for greater competition and investment.

Who Dominates Namibia's Telecom Market?

The Dominant Market Position Report identifies the following entities as dominant operators in key telecom markets:

Market Segment	Dominant Operators
National Data Transmission	Telecom Namibia, NamPower
Wired End-User Access	Telecom Namibia
Wireless End-User Access	MTC, Telecom Namibia
Fixed & Mobile Call & SMS Termination	Telecom Namibia, MTC, Paratus, UCom Mobile, Telepassport Communications

State (or semi-state) owned entities (Telecom Namibia & MTC) control most of the network infrastructure and subscriber services in Namibia, limiting private sector competition.

There are several consequences that flow from a few operators having a dominant market position:

High Market Share Enables Price Control: Operators with a dominant position can set prices independently without competitive pressure. It also means that internet and mobile services remain expensive compared to other African markets.

Limited Incentives for Innovation: Without strong competition, dominant operators lack motivation to innovate and improve services. They tend to be slow in the adoption of 5G, fibre expansion, and advanced broadband technologies.

Barriers for new entrants: CRAN's licensing process arguably makes it difficult for private players to compete on a level playing field. This means that foreign operators (like Starlink) face delays in approval, limiting alternative internet access options.

Restricted Rural Expansion: 57% of Namibia's fibre network is controlled by Telecom Namibia, giving it power over broadband expansion. This means private sector providers lack access to critical infrastructure, reducing rural connectivity.

Market dominance in the telecommunications sector can have several negative consequences, leading to higher prices and lower accessibility for consumers. Some key consequences include:

Higher Prices

- **Price Control**: Operators with a dominant market position can set prices independently without competitive pressure. This means that they can charge higher prices for their services, as there are fewer or no alternative providers for consumers to choose from.
- **Lack of Competition**: When a few operators dominate the market, there is less incentive for them to lower prices. In a competitive market, companies would typically lower prices to attract more customers, but in a monopolistic or oligopolistic market, this pressure is absent.

Lower Accessibility

- **Limited Infrastructure Development**: Dominant operators may not have the incentive to invest in expanding infrastructure, especially in rural or less profitable areas. This can lead to slower infrastructure development and reduced connectivity in these regions.
- **Barriers for New Entrants**: The licensing process and other regulatory barriers can make it difficult for new players to enter the market. This limits the availability of alternative service providers, reducing consumer choice and accessibility.
- **Restricted Rural Expansion**: Dominant operators may control critical infrastructure, such as fibre networks, which can limit the ability of other providers to offer services in rural areas. This results in reduced connectivity and accessibility for rural populations.

Overall, market dominance in the telecommunications sector can stifle competition, leading to higher prices and lower accessibility for consumers. Encouraging competition and reducing

barriers for new entrants can help mitigate these issues and promote a more dynamic and consumer-friendly market.

Several bottlenecks are identified that limit private sector involvement in the telecommunications market. These include:

Limited Access to Critical Infrastructure: Non-state-owned operators have limited access to Namibia's critical infrastructure. For example: Telecom Namibia controls most of the Namibia's fibre optic backbone. MTC has an 82% market share in mobile services, making it difficult for competitors to scale and delays in spectrum licensing prevent new players from launching mobile and broadband services.

Lack of clear, competitive licensing rules: The licensing process is complex and discretionary, discouraging foreign and local private investors. There are no clear incentives for private telecom companies to invest in infrastructure (although indications are that discussions are underway by CRAN to see how the playing field can be better levelled).

Government's dual role as regulator and market player: Government's dual role as regulator and market player prevails in all sectors in Namibia, for example, mining, petroleum, electricity, even tourism and telecommunication. There should be independent regulators that report directly to parliament. In what can be called a quartet, the roles of **(1) regulator** (similar to a referee to ensure fairness), **(2) policy maker** (government), **(3) supplier** and **(4) end customer** should be separated from each other to enable equity and checks and balances between all role players. In such a quartet, **government as policy maker is just a facilitator** of policy formulation based on the needs of the other role players. The separation of these roles is imperative to minimise unfair competition from monopolies and undue influence of partisan regulators of whose board members are appointed by a minister with no direct accountability or liability to suppliers and end customers. The proposed quartet with **independent role players** will enable improved accountability, transparency and liability to trigger investment to Namibia for increasing trust and reduced investor uncertainty.

The state owns and controls both Telecom Namibia and MTC (majority government owned), while also regulating the sector through CRAN. This creates potential conflicts of interest, making it difficult for private companies to compete fairly.

Lessons from Other African Countries

Namibia lags peer countries in liberalising its telecom sector. The following case studies demonstrate how opening markets can drive competition, lower prices, and improve services:

Country	Liberalization Strategy	Impact
Kenya	Allowed foreign investment (Safaricom & Vodafone)	Lower prices, fintech boom (M-Pesa)
Nigeria	Opened telecom market to private investors	Large mobile market, high broadband penetration
Botswana	Approved Starlink & private fibre investment	Expanded rural broadband access
South Africa	Highly competitive, multiple mobile & internet providers	Lower data costs, high 4G/5G access

What Namibia Can Learn

Encouraging private sector growth leads to innovation and lower prices. The reason for this is simple: More competition means more choice, and more choice means that operators must compete to offer (i) the best product (ii) to the largest possible consumer base (more subscribers) (iii) at the lowest (or most affordable) price. Namibia needs foreign investment in the form of capital for national and cross border infrastructure expansion. Its telecoms regulatory framework and policy environment should reflect this.

Policy Recommendations for Telecom Market Reform

There are several low-hanging fruits that can be implemented to encourage competition and attract more capital to the telecommunications sector. Policy recommendations for telecom market reform include:

Limit state-owned operators' market dominance: Enforce fair competition rules to ensure that state-owned entities like Telecom Namibia and MTC do not monopolise the market. With more players in the market, Telecom Namibia and MTC are forced to reduce their inefficiencies and subsequent price inflation to most customers. In addition, companies are incentivised to offer better deals and more advanced technologies to attract and retain customers.

Mandate more infrastructure sharing: Require state-owned operators to share their infrastructure, such as fibre networks, with private players to promote competition. State-owned operators either view their infrastructure as a public asset (as these assets were ultimately paid for by the taxpayers) for all players to share for free, or they view these assets as their exclusive property (although paid for by the taxpayer) to compete with, and ultimately crowd out private sector. CRAN is in terms of the Communications Act, tasked by law to enforce the principle of “*compete and collaborate*” in terms of unused capacity, known as ‘dark fibre’. However, CRAN is not an independent regulator as explained previously - it is too closely related to government as policy maker (albeit a co-policy maker with government) to regulate objectivity and without vested interest. Telecom, MTC and Nampower that are in the possession of such unused capacity of ‘dark fibre’.

Ensure fair spectrum allocation: Allocate spectrum in a way that enables new market entrants to compete effectively. Cases are known about new entrants that have been hampered severely by CRAN in their attempts to enter the market due to undue influence by Telecom Namibia, MTC, City of Windhoek (with reference to the case of Paratus vs City of Windhoek) and Nampower.

Encourage private and foreign investment: This means easing licensing restrictions and simplifying the licensing process for private and foreign telecom companies to encourage their participation in the market.

Reduce barriers for international investors: Lower the hurdles for foreign investors, such as Starlink, to enter the Namibian market. Requiring local ownership, for instance, when local owners add little to no value to the foreign investor or its product offering, is a prohibitive

requirement. The report discusses the damning consequences of institutions of extraction in more detail further down.

Offer tax incentives: Provide tax benefits for private companies investing in broadband expansion projects.

Establish an independent telecommunications regulatory body: Create a regulatory authority that operates independently of government-owned providers to ensure unbiased oversight. The regulator should also be independent of political interference.

Mandate annual market reviews: Conduct yearly assessments of the telecom market to monitor competition levels and make necessary adjustments.

These recommendations aim to create a more dynamic, competitive, and consumer-friendly telecommunications market in Namibia. By implementing these reforms, Namibia can foster innovation, lower prices, and improve services for its citizens.

Conclusion on this sub-section

Namibia's highly concentrated telecom market is stifling innovation, restricting competition, and keeping costs high. MTC and Telecom Namibia dominate essential infrastructure, preventing private companies from entering the market. Global trends show that competition fosters better services, lower costs, and economic growth. By liberalising the sector; reducing state control, bureaucracy and overregulation; Namibia will be able to encourage private investment. Namibia can and should create a more dynamic, competitive, and consumer-friendly telecom market.

Access in remote areas, faster broadband speed and reduced prices driven by competitive telecommunications technology, will enable more commercial transactions needed for more trade as is now possible with the African Continental Free Trade Agreement (AfCTA). Access will not only be widened, but quality of products and services will also improve to enhance inter African trade, one of the major obstacles where currently approximately only 24% of total trade is inter African trade.

A more competitive telecom market will reduce prices. A more competitive and dynamic telecommunications market also contributes to overall economic growth. Reduced prices and improved services can boost productivity and efficiency for businesses, while increased investment in infrastructure can create jobs and stimulate economic activity. Education, especially in rural areas, will also be greatly improved. All of this is a net positive for Namibia.

5.2. Communication Regulators of the Future

What does a “future-fit” communications regulator look like? Traditional telecom models used to be monopolistic, dominated by national operators, and built around fixed-line networks. It was an easy model to regulate. However, that model has given way to a liberalised but highly interconnected digital ecosystem driven by rapid technological advancements. Some of the key changes include:

Shift to digital and IP-based networks: Voice, data, and video services now run on the same infrastructure, blurring the lines between telecom and internet services.

Rise of global players: Companies like Starlink, SpaceX, Amazon (Project Kuiper), and Google’s connectivity initiatives challenge traditional regulatory models designed for national operators.

Explosion of mobile and wireless technology: The proliferation of smartphones and mobile broadband, including 4G and 5G, has changed consumer expectations and market structures.

Emergence of Over-the-Top (OTT) services: Platforms like WhatsApp, Zoom, and Netflix bypass traditional telecom providers, disrupting revenue models and regulatory approaches.

Cybersecurity and data privacy concerns: Regulators must now address not just market competition, but also cyber threats, data sovereignty, and digital rights.

Satellite and non-terrestrial networks: The entrance of satellite broadband services like Starlink and OneWeb presents new regulatory challenges related to spectrum allocation, licensing, and competition with terrestrial networks.

Increased demand for universal access: Governments face pressure to expand broadband access to underserved areas, often balancing this goal with protecting local industries.

Digital complexity means that the role of traditional regulators is also evolving. It is no longer a matter of regulating a single national operator with fixed, terrestrial ICT infrastructure. It has become a balancing act between competing interests. A modern regulator must wear many hats: protect consumers, expand access to data, foster competition, ensure security, and enable innovation.

This begs the question: What does a “future fit” communication regulator look like, especially during a time of profound technological change?

In October 2022, the OECD produced an insightful policy paper exploring the critical role that communication regulators play in an increasingly connected society. It identified the objectives, challenges, measures to face these challenges, and capabilities of communication regulators of the future.²²

It is beyond the scope of this report to delve into these issues in detail, but it is useful to point out salient points below. These are relevant to Namibia’s own telecommunications regulatory environment.

The key points flowing from the OECD policy paper are as follows:

- Digital transformation is critical to economic growth (but poses challenges).
- The broad-based consensus is that there can be no digital transformation without broadband connectivity. Industry 4.0, AI systems and the Internet of Things (IoT) all require affordable, reliable, and fast internet access. This places additional strain on regulators.
- Change is the new normal.
- Regulation must evolve with the changing digital landscape. It is important to have a robust and flexible regulatory framework. Policy objectives should be clear, especially in an age of

²² OECD (2022), “Communication regulators of the future”, OECD Digital Economy Papers, No. 333, OECD Publishing, Paris, available at <https://doi.org/10.1787/f02209e6-en>.

technological convergence. This may require closer cooperation with international regulators.

- Regulation should encourage economic growth.
- A modern regulator needs to foster investment and promote competition. It should encourage investment and growth in high-speed, fibre and 5G (and 6G) based networks. Infrastructure sharing and co-investment practices should be normalised. Importantly, regulators should not intervene on an *ad hoc* or arbitrary basis, but only where necessary and in an effective manner.

The future will require additional capabilities and capacity building by regulators. New skills and digital tools to deal with the evolving communications landscape are critical. This may require some flexibility, and acquiring the technical skills as required. In other words, personnel employed by the regulator should not only be competent, but also be informed by a data-driven (not emotional) approach. Transparency is key, and automation and real-time sharing of information will become increasingly important.

Policy is often used as a blunt (emotional) political tool, when it should be rational and evidence-based. Objectives should promote competition (rather than being protectionist) and support high-capacity network infrastructure and services. It requires investment in high-quality broadband networks and reducing arbitrary barriers to network deployment (such as overly complex bureaucracy and red tape when dealing with licences). These objectives and requirements can benefit all citizens and stimulate economic growth and employment creation.

Strengthening consumer rights - in an open market, consumer choice and protection are important objectives of regulators.

Security and resilience of networks - security and resilience of communication networks (and critical network infrastructure) is a core mandate of regulators.

Fair and open market - the telecoms market should be fair and competitive for all participants.

6. PART 3 – THE AFRICAN UNION’S DIGITAL TRANSFORMATION STRATEGY

The African Union’s Digital Transformation Strategy for 2020 to 2030 (AU Digital Transformation Strategy) recognises that digital transformation is critical to Africa’s social development.²³

The AU Digital Transformation Strategy contains ambitious objectives. They include:

- a) Build a secured Digital Single Market in Africa by 2030 where free movement of persons, services and capital is ensured, and individuals and businesses can seamlessly access and engage in online activities in line with AfCFTA.
- b) By 2030 all Africans should be digitally empowered and able to access safely and securely to at least (6 mb/s) all the time wherever they live in the continent at an affordable price of no more than (1cts USD per mb) through a smart device manufactured in the continent at the price of no more than (100 USD) to benefit from all basic e-services and content of which at least 30% is developed and hosted in Africa.
- c) Create a harmonised environment necessary to guarantee investment and financing by setting up a digital sovereignty fund to close the digital infrastructure gap and achieve an accessible, affordable and secure broadband, across demography, gender, and geography.
- d) Harmonise policies, legislations and regulations and establish and improve digital networks and services with a view to strengthening intra-Africa trade, intra investment and capital flows and the socio-economic integration of the continent, while maintaining a relational balance with other continents in the context of networked economies.
- e) Implement laws, policies and regulations required to stimulate and accelerate digital transformation for national, regional, and continental development.
- f) Enable the coherence of existing and future digital policies and strategies at regional and national levels and mobilise effective cooperation between institution.

²³ <https://au.int/sites/default/files/documents/38507-doc-dts-english.pdf>

- g) Entry into force of the African Union convention on Cyber Security and Personal Data Protection by 2020 and for all Members States to adopt a complete set of legislation covering e-Transactions, Personal Data Protection and Privacy, Cybercrime and Consumer Protection.
- h) Promote open standards and interoperability for cross-border trust framework, personal data protection and privacy.
- i) Create awareness and counterbalance issues of Cyber Security and Personal Data Protection and Privacy.
- j) Promote the management and use of Country Codes Top Level Domains as they are critical national resources whilst ensuring that technical and administrative operations are at international standards to foster trust and use of African Domain Names in order to bring financial, economic and sociocultural benefits to Africa.
- k) Build inclusive digital skills and human capacity across the digital sciences, judiciary, and education. The said mentioned capacity includes both technical and vocational, to lead and power digital transformation including coding, programming, analysis, security, block chain, machine learning, artificial intelligence, robotics, engineering, innovation, entrepreneurship, and technology policy & regulation.
- l) Offer a massive online e-skills development program to provide basic knowledge and skills in security and privacy in digital environment to 100 million Africans a year by 2021 and 300 million per year by 2025.
- m) Foster the policies that create an enabling environment for productive digital trade and digital payment systems to advance opportunities for digital work, fair competition for digital businesses, and contribute to an advantageous position of Africa in the global digital economy.
- n) Support the Agenda 2063 flagship Pan-African “E” programme through providing policies and strategies that lead to transformative e-applications and services thereby making the digital revolution the basis for service delivery and ultimately transform Africa into a Digital Society. Language barriers and time zones for e-learning and telepresence component of the Pan-African e-Network to be removed.

- o) Build a vibrant sector approach to digitalisation of the agriculture, health and education sectors.
- p) 99.9% of people in Africa to have a digital legal identity as part of a civil registration process by 2030.
- q) To make African citizens, enlightened and responsible e-citizens.

There is clearly wide-spread recognition in the African Union that African governments have *“a responsibility to create an enabling environment with policies and regulations that promote digital transformation”*.

The AU goes on to say that *“affordable, accessible and reliable infrastructure is the foundation to achieve an inclusive digital transformation. Several studies demonstrate that broadband penetration and broadband quality are important factors for economic growth. According to a World Bank study, it is estimated that for every 10% increase in broadband penetration in low- and middle-income countries result in a commensurate increase of 1.38% of the GDP”*.

Despite lofty goals and sound policy recommendations, turning ambition into reality is a different story altogether. The AU seems to acknowledge as much and accepts that *“despite the strong entrepreneurial mindset and the growing number of digital entrepreneurial intermediaries, Africa has not translated its potential into a vibrant or comprehensive digital entrepreneurial ecosystem, with commercial digital hubs that can generate talent and ventures to compete at the highest global level”*. There is therefore a need for member states to also look inward, and to develop their own *“customised interventions to strengthen their specific entrepreneurship ecosystems of mutually reinforcing components that include a digital knowledge base and ICT market; a digital business friendly environment; access to finance; digital skills and e- leadership; and an entrepreneurial culture”*.

Growing Importance of The Private Sector

Historically, most funding for ICT in Africa came from development finance institutions. That is changing. The AU Digital Transformation Strategy notes that *“during the past 10 years, the*



private sector has invested in over 450 ICT companies in Africa which resulted in a total investment of \$45bn". The expectation is that the private sector will play an increasingly important role in rolling out ICT infrastructure across the African continent. However, this will only happen if there is a conducive market and policy environment to justify the astronomical investments necessary to bring about digital transformation. Countries with favourable enabling economic policies will benefit more than restrictive countries. Countries that enforce barriers through policy, such as Namibia, with the local ownership requirement, for instance, will continue to stay behind, and their citizens will pay the price.

7. PART 4 – NAMIBIA'S BARRIERS

7.1. Licensing Requirements for Foreign Operators in Namibia

Foreign operators seeking to establish telecommunications or broadcasting services in Namibia must comply with licensing requirements set out by CRAN under the Communications Act No. 8 of 2009 (the Communications Act).

One of these requirements is contained in Section 46(1) of the Communications Act which prescribes that any applicant for a telecommunications or broadcasting service license must have at least 51% Namibian ownership. The whole section reads as follows:

"Ownership restrictions

46. (1) Subject to subsection (2) and (4), no licensee may be controlled by any person that is not a Namibian citizen or a Namibian company and no more than 49% of the stock in any licensee may be owned by persons that are not Namibian citizens or Namibian companies that are controlled by Namibian citizens.

(2) The Minister may beforehand authorise the acquisition of control or ownership of stock that is prohibited by subsection (1).

(3) Any transfer of control or ownership prohibited by subsection (1) is of no force and effect.

(4) Any acquisition of stock or transfer of control done before the commencement of this Act is deemed to have been done with the permission referred to in subsection (2), if such acquisition or transfer has complied with all legal requirements applicable at the time of such acquisition or transfer."

It is noticeable that Starlink is also not operational in South Africa where regulatory concerns over spectrum allocation and local ISP protection were raised (as well as BEE ownership requirements).

7.2. Current Status on Starlink

Starlink's attempted entry into Namibia's telecommunications landscape mirrors a broader narrative of satellite internet providers navigating African regulatory frameworks. The company's effort to introduce LEO satellite services has encountered significant regulatory hurdles as pointed out in Part 2 above. In fact, in 2024 CRAN ordered Starlink to halt operations due to licensing issues and concerns over regulatory compliance.²⁴

CRAN's press release is telling. The quote the press release verbatim:

"UNLAWFUL PROVISION AND UTILISATION OF STARLINK TELECOMMUNICATIONS SERVICES IN NAMIBIA

Windhoek, 28 November 2024 – The Communications Regulatory Authority of Namibia (CRAN) would like to inform the public that Space Exploration Technologies, Inc. ("SpaceX," also known as Starlink), an international aerospace company offering Low Earth Orbit (LEO) satellite communication services, is not licensed to operate in the Republic of Namibia.

Following an investigation, CRAN has established that Starlink is operating a network within Namibia without the required telecommunications license. On 26 November 2024, the Authority issued a cease-and-desist order to Starlink, instructing the company to immediately cease all operations in Namibia.

The public is hereby advised not to purchase Starlink terminal equipment or subscribe to its services, as such activities are illegal under Namibian law. CRAN investigators have already confiscated illegal terminals from consumers and have opened criminal cases with the Namibian Police in this regard.

'CRAN remains committed to enforcing the Communications Act to ensure fair competition, consumer protection, and compliance with regulatory requirements. We urge all service providers to adhere to the legal framework governing the telecommunications sector in Namibia.

²⁴ The Namibian, 1 December 2024, <https://www.namibian.com.na/cran-orders-starlink-to-stop-operations-in-namibia/>

Starlink must comply with the licensing process before operating in our country', stated Emilia Nghikembua, CEO of CRAN.

While Starlink has submitted an application for a telecommunications service license, CRAN has not yet issued the license, as the application is still under review. Until such time that a license is granted, the importation of Starlink terminal equipment and use of its services contravenes Sections 37(1) and 38(2)(a) of the Communications Act (No. 8 of 2009) and constitutes a regulatory offence as per Section 114(1) of the Act.

CRAN is actively pursuing legal action against any individual or company found in contravention of the Communications Act and reminds the public to refrain from importing or using Starlink services."

The similarity between Telecom's response in 2006 (as discussed in Part 4 above) and CRAN's response to Starlink is striking. Starlink's market entry bid highlights Namibia's complex position on foreign satellite operators. The understanding is that the regulator's concerns centred on three key areas: (1) **spectrum allocation**, (2) **local ownership requirements**, and (3) **national security** considerations. The assumption is that one of the biggest obstacles will be that Starlink's proposed operational model doesn't align with Namibia's mandatory **51% local ownership policy**. As a statutory body CRAN must apply the law. The Minister may waive the local ownership requirement which essentially makes Starlink's entry into Namibia not purely a technical application, but also potentially a political issue. The report discusses the latter in more detail hereunder.

The regulatory response reveals tension between technological innovation and national sovereignty. While Starlink's service could potentially transform connectivity across Namibia's vast rural expanses, the company's resistance to traditional licensing frameworks seems to have created an impasse. SpaceX's standard global operational model - direct satellite-to-consumer service without significant, or any local infrastructure - challenged CRAN's established regulatory approach. The said approach is not aligned with the latest low satellite telecommunications' service providers' technology aimed at providing more accessible services at cheaper prices. These benefits are imperative for Namibians where an enormous digital divide exists in the

widespread geographical rural areas where poverty and unemployment are the biggest problems, based on African Barometer Surveys conducted during July and August 2024.²⁵

Continently, this situation reflects a broader dialogue about balancing technological advancement with local economic (and possibly personal) interests. As pointed out earlier in this report, similar regulatory discussions have unfolded in neighbouring countries, with varying outcomes affecting regional satellite internet deployment strategies.

7.3. The Monopoly Versus Liberalisation Debate

For a long time, the accepted (global) wisdom was that the telecom sector is best served by a single large monopoly. Beginning in the 80's that view was challenged and a wave of liberalisation swept through the industry. It seems obvious to say that healthy competition brings better services (because consumers can choose from more service providers) than a fixed, static monopoly. Suffice to say, that argument still holds true. For a more detailed historical perspective on the "monopoly versus liberalisation" debate (and its historical roots in a Namibian context) see the IPPR paper dated November 2003.²⁶

7.4. Namibia's Socio-Economic Environment

Namibia's deplorable socio-economic environment is well documented. This report will not repeat too much, save to allude to the latest statistics on unemployment as released by the Namibia Statistics Agency (NSA) in January 2025. The NSA used the "strict" definition of unemployment, which means that people who have given up seeking employment, are simply not regarded as being unemployed anymore. They are now regarded as falling "*outside of the labour force*". As per the NSA, in using the strict definition, Namibia's unemployment in 2023 stood at 36.9%, an increase of 3.5% from the unemployment rate of 33.4% in 2018.

The unemployment figure of 36.9% based on the "strict" definition is at best misleading or at worst a falsehood. The unemployment rate of 33.4% in 2018 was measured using the "broad" definition, and thus also included persons who had given up on seeking employment.

²⁵ <https://www.afrobarometer.org>

²⁶ <https://ippr.org.na/wp-content/uploads/2010/06/BP25.pdf>

Unemployment, using the strict definition, increased from 19.8% in 2018 to 36.9% in 2023 – an increase of 17.1%. If the broad definition was consistently used on the 2018 and 2023 data, unemployment increased from 33.4% in 2018 to 54.8% in 2023 – a staggering 21.4% increase. Namibia's actual unemployment rates are amongst the highest, if not the highest in the world. In the run-up and aftermath of releasing the labour force survey report, many accused the NSA of being a politically captured institution. The timing of the release of the unemployment data (shortly after the 2024 elections, even though the data was already captured during the general census a year before) and the disingenuous inconsistencies in reporting unemployment from 2018 to 2023 certainly raises valid questions about political interference in the NSA. It is not difficult to see why many would question the independence and the integrity of the NSA.

Since 2016, the eventual co-founders of EPRA have been very vocal about the danger of following populist policies which are not grounded in sound economic principles. They have also on numerous occasions raised alarm bells about the dire consequences of the government's drastic departure from respecting property rights. These also include concerns about other constitutional protections, in favour of policies aimed at engineering outcomes that ultimately benefit only a small group of Namibians—under the guise of wealth redistribution.

Many other experts and institutions, local and international, issued warnings that government's policy direction does not create an enabling environment for economic growth and job creation. The government persists in this policy direction, despite economic and unemployment data clearly showing that Namibia's economy is substantially subdued, investment is severely hampered (Namibia's investment rating is B1, which relates to junk status), and unemployment shot through the roof.

Since its inception in 2017, EPRA published numerous reports, on several bills and regulations. EPRA believes contribute to a toxic business environment, ultimately creating institutions of extraction, for the benefit of a few, at the expense of the population at large. The concept of institutions of extraction is found in the global best-selling book called *Why Nations Fail: The origins of power, prosperity and poverty*.²⁷

²⁷ Acemoglu, D., & Robinson, J. A. (2012). *Why nations fail: The origins of power, prosperity, and poverty*. Crown Business.

We have little doubt that the local ownership requirement contained in the Communications Act is one of the reasons why Starlink's application is stalling (perhaps the main, if not the only reason). If so, it creates (intentionally or perhaps unintentionally) another institution of extraction in Namibia. It is necessary to reiterate ERPA's stance on such policies (including laws), as, from 2016, it has now become evidently clear that our country is regressing, on all levels, due to government policy. From the discussion above, Namibia is also regressing quite fast in the telecommunications sector, while our neighbours, for example Botswana, are surpassing us.

7.5. Industry Feedback

On 7 February 2025, EPRA approached four key stakeholders in Namibia's telecommunications industry in writing, to obtain their input on Starlink. They are CRAN, MTC, Telecom and Paratus.

We asked them the following two questions:

- "1. What do you foresee as the main advantages and challenges for your organisation in introducing Starlink's satellite internet.*
- 2. What do you foresee as the main advantages and challenges for the country in introducing Starlink's satellite internet."*

Despite follow-up requests, and by the date of finalisation of this report (27 February 2025), neither MTC nor Telecom provided substantive responses. Paratus and CRAN did respond.

CRAN stated that the application of Starlink is still pending, and that the nature of our questions requires CRAN to pronounce itself on matters that can only be considered during the license application: *"To do so in this matter, would pre-empt the outcome of the process"*.

We quote the response from Paratus verbatim as follows:

On question 1:

“Advantages

With the ever-increasing demand in data, traditional V-Sat no longer fulfils the need especially to those remote customers like farmers, lodges and even schools and clinics. Namibia is a vast and sparsely populated country which makes it very difficult to attain 100% population coverage. Starlink is the ideal technology to fulfil that need and enable these customers to access the required bandwidth.

Challenges

Current price fluctuations introduced by Starlink in the countries that we do operate are very difficult to control. Currently customers are not used to monthly fluctuations in their subscription as with our current contracts / services these remain consistent. We do however believe that as the market matures and Starlink gets a better understanding of the African market this will change.

Customers perceive Starlink to be a better technology than current fixed line / fiber packages as the Starlink team has done a great job of their marketing efforts. It is however still satellite technology and will not outperform terrestrial (Fiber / Microwave) services.”

On question 2:

“Advantages

Starlink is a high-speed affordable service which will enable instant 100% population coverage for Namibia. Schools and clinics situated in very remote areas will benefit greatly from this technology.

Challenges

As Starlink’s business model is to sell directly to consumers, we suspect that support for these consumers will be a challenge as they have no feet on the ground.

Exchange rate fluctuations and frequent price changes will also impact customers.”

EPRA will still welcome any response from MTC and Telecom, on our stated questions, or this report, but same can obviously then not be included in this report.

7.6. Government Policy Promoting Rent Seeking Remains Namibia's Biggest Obstacle

Extractive institutions create an environment where elites manipulate political and economic systems not to generate wealth through productivity and innovation, but to extract existing wealth for their own benefit. Rent-seeking is a key mechanism through which extraction occurs, as powerful groups exploit regulatory controls, monopolies, and/or state resources without contributing to economic growth. Such rent seeking contributed to economic stagnation, and inequality. Rent seeking reduce incentives for attracting investment and stimulating entrepreneurship, reinforcing the extractive cycle. In Namibia's context, policies, e.g. (1) **the National Equitable Economic Empowerment Bill (NEEEB)**, (2) **the Investment Promotion and Facilitation Bill (IPFB)**, and (3) **the September 2022 regulations to the Affirmative Action (Employment) Act and Employment Services Act**. The said mentioned policies and regulations risk increasing institutionalised rent-seeking, where access to economic opportunities depends on political connections rather than competitive merit.

Rent-seeking, as discussed in 'Why Nations Fail', refers to the practice where individuals or groups use their influence over political and economic institutions to extract wealth without contributing to productivity or economic growth. Instead of engaging in innovation or creating value, rent seekers manipulate regulatory frameworks, secure monopolies, or gain preferential access to state resources, often at the expense of broader society. Examples of these are plentiful in Namibia.

Acemoglu and Robinson argue that rent-seeking flourishes in extractive institutions, where elites design policies to serve their own interests rather than promoting inclusive economic growth. Over time, such systems stifle competition, discourage investment, and create a vicious cycle of economic stagnation and inequality, as seen in historical examples like colonial Latin America, post-Soviet economies, and modern autocratic regimes. The Namibian government has taken the concept of rent seeking even further, so that individuals or groups use their influence over political and economic institutions not only to gain preferential access to state resources (e.g. tenders for delivering medicine and public construction), but through (1) **NEEEB**,

the (2) **IPFB**, (3) **the September 2022 regulations to the Affirmative Action (Employment) Act and Employment Services Act**, and now also (4) **the Communications Act**, access to ownership and resources held by private sector enterprises.

7.6.1. The Economic Consequences of Institutions of Extraction

Institutions shape the economic trajectory of nations. When institutions are inclusive, they foster innovation, investment, and long-term prosperity. When institutions are extractive, they concentrate wealth and power within a small elite at the expense of broader economic growth. The central argument of *Why Nations Fail* by Acemoglu and Robinson is that economic prosperity hinges on the presence of inclusive institutions, while extractive institutions create stagnation, poverty, and political instability. There can be little doubt that Namibia is going through a phase of substantial stagnation and massively increased poverty, highlighted by the latest unemployment data.

Namibia's economic policies—particularly those outlined in (1) the **NEEEB**, (2) the **IPFB**, and (3) **the September 2022 regulations to the Affirmative Action (Employment) Act and Employment Services Act** — risk entrenching an extractive institutional framework. This framework discourages investment, fosters rent seeking and diminishes economic opportunities for the majority. Despite numerous warnings of the consequences of these policies, Government has not showed inclination of removing them from the table. Quite the contrary.

This section explores the economic consequences of extraction, using both Namibia's policy environment and comparative historical evidence.

7.6.2. Characteristics and Impact of Extractive Institutions

Extractive institutions exhibit the following defining characteristics:

- *Concentrated power*: Political and economic control is held by a small elite who manipulate regulations for self-enrichment.
- *Barriers to entry*: Policies restrict competition, preventing dynamic market forces from driving economic growth.

- *Rent-seeking behaviour*: Resources are allocated based on political connections rather than efficiency or innovation.
- *Legal and policy uncertainty*: Arbitrary government intervention discourages long-term investment and planning.

In Namibia, (1) NEEEB, (2) IPFB, and (3) the **September 2022 regulations to the Affirmative Action (Employment) Act and Employment Services Act**, serve as prime examples of extractive policymaking. The local ownership requirement contained in the Communications Act appears to be no different. These policies grant excessive discretion to government officials, impose bureaucratic hurdles on investors, and create an artificial dependency on politically connected business actors. As 'Why Nations Fail' demonstrates, extractive institutions suppress productivity, deter foreign and domestic investment, and ultimately lead to economic decline.

Based on the data from CRAN reports as discussed above, Namibia's telecommunications industry is performing sub-optimally (probably due to monopolistic behaviour resulting in a limited meaningful competition). Internet users appear to be declining. This could be due to SIM de-registrations but also many other factors that result in inefficiency and higher costs. From the socio-economic data provided earlier, it appears that the average Namibian today is substantially worse off than a few years ago.

LEO operators, e.g., Starlink, will be a gamechanger for connectivity in Namibia, especially for people in rural areas, and especially for rural schools. EPRA estimates that between 400,000 and 600,000 children are enrolled in public schools in rural areas. These childrens' lives will change dramatically, should they be able to connect to the internet. It is worth noting that the former Minister of Communication and Information Technology, before Covid 19, said that his intention is to provide free internet access to school children, based on Kenya's example. With increased accessibility, by granting a licence to Starlink, this may be the critical step in making this intention a reality - but more than 5 years on, this promise has not materialised yet.

Agriculture and scientific research will also benefit if internet connectivity can be extended to the whole of Namibia. In fact, it is difficult to think of any sector that will not benefit tremendously. However, instead of approving a leapfrogging technological advancement, Starlink's license application appears to be in limbo. We extend an invitation to CRAN to

comment on Starlink's possible impact in Namibia. CRAN replied that it cannot comment on Starlink, as Starlink's application is still pending.²⁸ It is possible to speculate that CRAN is waiting for somebody to show up as Starlink's "local partner / co-owner". It is not clear that Starlink would be willing to become a partner to this policy which promotes an institution of extraction and rent-seeking. And while the wait, the impasse continues, and Namibia is left behind the rest of the region, Africa and the rest of the world.

7.6.3. The Economic Impact of Extraction: Lessons from History

Extractive institutions have historically caused economic collapse. The Soviet Union, Venezuela, Zimbabwe, and Argentina provide stark examples of how overregulation, state intervention, and nationalization discourage innovation and destroy economic value.

Soviet Union: Centralized control of industries stifled productivity, leading to economic stagnation. The elite and politically connected communist overlords replaced state control during the divestment of state resources to the benefit of a small number of oligarchs.

Venezuela: Government control over private enterprise such as banking and mining and expropriation of foreign investment led to hyperinflation, economic contraction, and mass poverty. Venezuela went from the country with the fourth highest GDP per capita during the 1950's to a country where it is now not uncommon for people eat animals in zoos to survive.

Zimbabwe: Land seizures and strict regulatory policies, and nationalisation of mines contributed to a catastrophic decline in agricultural productivity, hyperinflation, and capital flight. Zimbabwe went from being one of the biggest agricultural producers in Africa to a country where people depend on food aid, with a substantial portion of the population having fled to mostly South Africa to survive. Many highly educated Zimbabweans are now Uber drivers in South Africa.

Argentina: Excessive state control over the economy led to a collapse of banks, hyperinflation, periodic financial crises, and eroded investor confidence. Fortunately, with a new

²⁸ We discuss the industry's input to this research further down.

president in place, investor confidence is recovering from a low baseline, and despite initial increased inflation, the economy appears to be on a solid path to improve substantially.

Unless corrective measures are taken, Namibia risks following a similar path as the countries depicted. Policies like NEEEB discourage private sector expansion by forcing racial quotas, arbitrary ownership transfers, and compliance costs that favour entrenched elites rather than empowering the broader economy. The IPFB creates discretionary ministerial powers that grant government officials undue control over private business decisions, creating an environment ripe for rent-seeking and corruption.

7.6.4. The Consequences of Extractive Policies in Namibia

EPRA reports have extensively documented how Namibia's recent policy decisions have created an unattractive investment climate. The three key consequences of Namibia's extractive policy trajectory include:

7.6.4.1. Decline in Foreign Direct Investment (FDI)

EPRA's research shows that Namibia has experienced a steady decline in foreign direct investment since 2016 (in real terms), coinciding with the introduction of restrictive investment legislation. Comparative data with Botswana, Mauritius and Seychelles, countries that have adopted more inclusive policies demonstrates that predictable and open regulatory environments attract more investment.

Namibia's Gross Fixed Capital Formation (GFCF) peaked in 2014 but has steadily declined since 2016.

FDI inflows have been negative since 2019, reflecting capital flight caused by regulatory uncertainty.

Neighbouring Botswana has outperformed Namibia in investment growth, benefiting from transparent policies and reduced government interference. Botswana has allowed Starlink, without the barriers imposed by Namibia (and South Africa). Botswana thus has a distinct

advantage over Namibia, especially now that the former (and allegedly highly corrupt) government has been voted out of power.

7.6.4.2. Increased Unemployment and Poverty

Extractive institutions constrain employment creation by discouraging entrepreneurship and private sector expansion. EPRA's surveys among Namibian businesses indicate that:

- 98% of businesses view government hiring mandates as a tool for rent-seeking rather than genuine employment growth.
- Regulatory compliance costs have increased significantly, forcing small businesses to shut down.
- Unemployment has worsened since 2016, with youth unemployment rates reaching crisis levels. This drastic increase in unemployment has now been corroborated by recent unemployment figures from the NSA.

7.6.4.3. Market Distortions and Corruption

A key argument in 'Why Nations Fail' is that extractive policies create incentives for corruption such as cronyism. Namibia's (1) **IPFB**, (2) **NEEEB**, (3) **the September 2022 regulations to the Affirmative Action (Employment) Act and Employment Services Act**, policies and (4) the **Communications Act** should be included here - give ministers unchecked power to approve, deny, or alter investment and/or employment related decisions, creating an opaque environment where:

- Investment approvals may be based on political affiliation rather than economic merit.
- Certain businesses gain unfair advantages through government favouritism.
- Resources are misallocated, leading to inefficiency and economic decline.

7.6.4.4. The Path to Inclusive Institutions

Namibia must reverse course to avoid the long-term economic decline associated with extraction. The following policy recommendations are essential:

Reduce Government Overreach: Repeal discretionary ministerial powers that discourage investment and foster rent-seeking. Our previous report on the IPFB is especially telling on how Namibia intends to take full control over private sector investments in future.

Promote Rule of Law and Property Rights: Secure investor confidence by ensuring that government intervention in private business is minimized and based on clear, predictable legal frameworks.

Encourage Market Competition: Remove unnecessary restrictions on business ownership, licensing, and foreign participation. For example, in terms of the Mining Bill that is being drafted, indications are that Government wants to secure a 50% shareholding without compensation in mines. Unofficial indications are that the Government is considering allocating 50% of all future mining quotas to the State Owned, Epangelo Mining Company.

Adopt a Pro-Growth Investment Framework: Learn from Botswana's pro-investor policies, which have enhanced economic resilience and global competitiveness. Despite the lowering of corporate and personal tax rates (in the lower brackets) prior to the 2024 national elections, the corporate tax rate of 31% is still substantially higher than the 24% of Botswana, or the 15% of Mauritius. Namibia faces significant challenges that make it an unattractive investment destination. This has been discussed in detail in numerous EPRA reports before.²⁹

Foster Public-Private Partnerships: Work with businesses to create employment and economic opportunity rather than mandating forced ownership transfers and rigid compliance rules.

7.6.4.5. The Consequences of Namibia's Regulatory Barriers

Namibia's restrictive telecommunications policies, particularly local ownership requirements and bureaucratic licensing hurdles, have far-reaching consequences. By maintaining protectionist regulations that limit competition, the country has inadvertently stifled innovation, discouraged foreign investment, and kept the cost of connectivity much higher than it can be if

²⁹ www.epra.cc/downloads

these restrictions are reduced and/or removed. As a result, Namibia has fallen behind its regional counterparts in broadband penetration, mobile connectivity, and digital infrastructure development.

The consequences of these barriers extend beyond just market competition—they have a direct impact on economic growth, employment creation, and digital inclusion. Rural communities remain disconnected from essential services, education, and economic opportunities that depend on reliable internet access. The exclusion of global players like Starlink, who offer a cost-effective and scalable solution for remote connectivity, further exacerbates the digital divide in a country with the intention to reap the benefits of the Fourth Industrial Revolution (4th IR). Namibians have commissioned a task force that drafted a Report on how Namibia can strategize to participate in the 4th IR. To implement these strategies shall require minimising and/or removing restrictive protectionist telecommunication regulations.

As the global telecommunications landscape evolves, Namibia cannot afford to remain static. While countries such as Kenya, Botswana, and Nigeria have embraced progressive reforms to attract private sector investment, Namibia continues to rely on state-controlled operators that are incapacitated with limited agility and capital to drive sector-wide transformation. Unless urgent steps are taken to modernize Namibia's regulatory framework, the nation risks being left behind in the race for digital advancement.

To unlock the full potential of its ICT sector, Namibia must shift from exclusionary, monopolistic policies to a competitive, investment-friendly regulatory environment. The next section outlines a roadmap for reform, focusing on policy recommendations that will foster competition, lower consumer costs, and ensure that every Namibian—regardless of geography—has access to affordable, high-speed internet.

8. PART 5 - POLICY RECOMMENDATIONS AND CONCLUSION

8.1. The Path Forward: Policy Recommendations

To position Namibia as a leader in digital transformation and ensure universal, affordable, and competitive internet access, decisive policy reforms are required. The following key recommendations provide a clear roadmap to achieving this goal:

8.1.1. Eliminate Local Ownership Restrictions

Namibia's 51% local ownership requirement has been a major barrier to investment and competition. This restriction discourages international operators, such as Starlink, from entering the market and providing cost-effective connectivity solutions. Removing or significantly amending this requirement would foster a more open, competitive, and investment-friendly ICT sector.

8.1.2. Introduce a Transparent and Efficient Licensing Framework

The licensing process for telecommunications providers is currently opaque and bureaucratic, leading to unnecessary delays. Namibia should implement a clear, predictable, and streamlined licensing framework that facilitates market entry, encourages investment, and ensures a level playing field for all operators.

8.1.3. Encourage Infrastructure Sharing and Market Liberalisation

The dominance of state-owned operators (MTC and Telecom Namibia) limits competition and innovation. Reforms should mandate infrastructure sharing to allow private operators access to critical broadband and unused fibre networks, known as 'dark fibre'. This recommendation is aligned with the existing communication/information technology policy of 'compete and cooperate'. Additionally, government participation in the sector should be gradually reduced to foster private sector growth and competition.

8.1.4. Expand Rural and Underserved Connectivity

Given Namibia's low population density and large rural communities, digital inclusion policies should prioritise affordable, high-speed internet access for underserved areas. This can be achieved by incentivising private investment in satellite and broadband infrastructure, subsidising remote connectivity programs, and ensuring equitable spectrum allocation for emerging technologies.

8.1.5. Strengthen Independent Regulatory Oversight

The Communications Regulatory Authority of Namibia (CRAN) must operate independently of the state-owned enterprises framework and report directly to the National Assembly to avoid conflicts of interest. Establishing a more autonomous regulatory framework, with clear governance principles, will ensure fair competition, consumer protection, and innovation-friendly policies.

8.2. Conclusion: A Digital Future for Namibia

Namibia stands at a pivotal moment in its digital evolution. The choice is clear: either embrace reform and position the nation as a regional leader in telecommunications or remain bound by outdated policies that stifle competition and growth.

The experiences of Kenya, Botswana, and Nigeria demonstrate that liberalising telecom markets attracts investment, lowers consumer costs, and expands digital access. If Namibia continues to resist change, it risks being left further behind as the rest of Africa accelerates its digital transformation.

By removing restrictive ownership policies, reforming regulatory frameworks, and encouraging competition, Namibia can unlock the economic and social benefits of universal, high-speed internet. Starlink and other emerging global players are not just competitors—they represent an opportunity to reduce the digital divide, boost economic growth, and create new opportunities for businesses and individuals alike.



Now is the time to act. Namibia's future in the global digital economy depends on the decisions made today. Adapting to technological advancements, embracing open market policies, and prioritising connectivity for all citizens will ensure that the country is not left behind but instead leads the way into a more connected and prosperous future.

NOTES





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