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# Policy Brief:
# **Fostering an Enabling Environment for Community Networks in Nigeria.**

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POLICY BRIEF

# Fostering an Enabling Environment for Community Networks in Nigeria.

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# Executive Summary

Nigeria's ICT sector witnessed remarkable growth within the first decade of the introduction of mobile telephony services. The last decade has witnessed the consolidation of the progress recorded within that period. According to a survey carried out by Research ICT Africa in Nigeria between 2022 and 2024, only 32 million Adults (Persons from the age of 16 and above) have access to the internet.[1] However, a significant digital divide persists, particularly in rural and marginalised communities, where broadband access remains poor or non-existent. Despite government and private sector efforts, urban places enjoy far better connectivity than rural areas.

While nationwide connectivity has traditionally been driven by Mobile Network Operators (MNOs) and Internet Service Providers, Community Networks (CNs) have emerged as viable, transformative grassroots solutions to bridge the digital divide in underserved regions. These community-based connectivity initiatives have leveraged local resources and institutional support, starting with the Fantsuam Foundation in 2006,[2] and followed by efforts from the Internet Society Nigeria Chapter and CITAD. Yet, challenges such as regulatory barriers, infrastructure deficits, inadequate financing, and limited capacity-building continue to hinder their scalability.

This policy brief envisions a digitally inclusive Nigeria where universal broadband access drives entrepreneurship, education, and social services. Achieving this vision requires strengthened regulatory frameworks, multi-stakeholder collaboration, and private-sector engagement to overcome barriers like high infrastructure costs and affordability issues. The recommendations presented here aim to accelerate digital inclusion through community-centred connectivity.

1 https://researchictafrica.net/research/after-access-2023-digital-nigeria-post-the-pandemic/
2 https://www.apc.org/en/fantsuam-foundation

# Introduction

Nigeria has witnessed significant growth in its ICT sector, with internet penetration reaching 55.4% as of June 2025.[3] However, the digital divide persists, with rural and marginalised communities suffering from poor or non-existent broadband access. Despite the best efforts of the national government and the private sector, Nigeria faces significant challenges in achieving widespread digital inclusion. While urban areas, particularly in the southern regions like Lagos, have relatively advanced digital infrastructure, rural and semi-urban regions lag. This disparity is evident in the uneven distribution of internet access, with urban areas enjoying better connectivity than rural locations.

This disparity is well-documented. According to Research ICT Africa, a leading ICT research think-tank, the latest demand-side survey shows that only 19% of Nigerians living in rural areas have internet access.[4] The study defines an internet user as someone who has used the internet in the previous three months. This means 82 million rural Nigerians do not currently use the Internet as of 2023.[5]

Other independent studies corroborate this finding. For instance, GSMA's latest report on Nigeria indicates that only 29% of Nigerians regularly use the internet.[6] Using World Bank General Household Survey data, a 2023 study found that only 19.4% of non-urban areas in Nigeria have "good access" to the Internet.[7] A review of the Nigerian Communications Commission's (NCC) latest data further validates these figures, revealing that outdated 2G technology still dominates the GSM landscape, with 57% of mobile subscriptions relying on this older technology.[8] The urban-rural internet usage gap has also widened significantly, from 40% in 2012 to 77% in 2024[9], meaning that people in urban areas are 77% more likely to use the internet than those residing in rural locations. Additionally, the gender gap remains pronounced, with Nigerian men being 54% more likely to use the internet than women.

3 Ibid

4 Nationally-representative survey of individual Nigerians residing in all 36 states conducted by the National Bureau of Statistics. Odufuwa, F., Deen-Swarray, M., Partridge, A., et al (2024) 2022-2023 African After Access Survey: Post Pandemic Digital Africa Post the Pandemic, Cape Town: Research ICT Africa.

5 A reliable source for the population of Nigerians living in rural areas is the World Bank. According to their data, the rural population in Nigeria was reported at approximately 102,316,764 in 2023. This figure reflects the number of people living in rural areas as defined by national statistical offices and is calculated as the difference between the total population and the urban population. https://data.worldbank.org/indicator/SP.RUR.TOTL?locations=NG

6 GSMA (2024) The role of mobile technology in driving the digital economy in Nigeria, London.

7 https://storymaps.arcgis.com/stories/29f35bb938574da68f08ce23df6925e8

8 https://www.vanguardngr.com/2024/07/nigerias-heavy-reliance-on-2g-worries-regulator/

9 https://www.itu.int/itu-d/reports/statistics/2024/11/10/ff24-internet-use-in-urban-and-rural-areas/

# Defining Community Networks

Community networks provide meaningful internet communications infrastructure or services to communities that respond to the diverse needs and interests of communities so that they can be empowered to participate in their own development. In Nigeria's underserved rural landscapes, **community networks** may be defined as *telecommunications infrastructure deployed and operated by local groups to meet self-identified communication needs*, ranging from internet access to IoT-enabled agricultural services. These networks prioritize **geographic specificity** – typically unserved or underserved communities, **participatory governance**, and **hyperlocal revenue models** such as digital literacy fees, farmer cooperative contributions or device-sharing funding pools. They may also be described as **Community-Centred Connectivity initiatives** (CCCIs) as they may extend beyond infrastructure ownership to encompass *social enterprises and partnerships that align connectivity with multi-dimensional development goals*.

Recognising that a single definition of community networks would fail to capture the rich diversity of implementations, LocNet created a Typology framework that identifies and classifies various models that have emerged worldwide. These community networks and connectivity initiatives range from community-run networks to public services to social enterprises and hybrid models.[10] It emphasises **adaptive organisational structures**, where connectivity serves as a catalyst for education, healthcare, or economic empowerment rather than being an isolated technical solution.

These initiatives are often established in communities by what can be considered long-term "partners", and besides providing very necessary connectivity services, they have other positive social impacts, such as training and hiring people from the community, procuring services from the community, and reducing access costs considerably. They have a social mission and are concerned with the well-being of the community. This includes private businesses that were created (or evolved) to have a strong social mission and are generating benefits to the communities, as well as the work done by many municipalities.[11].

10 The typology uses 11 specific characteristics to categorize these initiatives, complemented by a set of 13 principles that capture the ethos of community-centred connectivity and define what makes these initiatives distinctive from others. https://www.apc.org/sites/default/files/typology-of-community-centred-connectivity-initiatives.pdf

11 Ibid.

# Community-Centered Connectivity Initiatives Journey So Far

Community-centred connectivity in Nigeria has evolved significantly over the past few decades and is driven by grassroots and institutional efforts. The journey began in the mid-2000s with the pioneering efforts of the Fantsuam Foundation, which established the first community network in Kafanchan, Kaduna State, around 2006.[12] This initiative aimed to provide affordable and reliable internet access to underserved rural communities, demonstrating the feasibility and impact of community-driven connectivity solutions. In 2013, the Internet Society (ISOC) Nigeria Chapter launched another notable community network in Zaria, Kaduna State, focusing on leveraging local resources and community participation to build sustainable connectivity solutions.[13]

In recent years, through the work of LocNet, there has been a renewed focus on community networks as a viable solution to Nigeria's connectivity challenges. Organisations like Fantsuam Foundation, Centre for Information Technology and Development (CITAD), and Media Awareness and Justice Initiative (MAJI), among others, have been at the forefront of building and advocating for community networks. CITAD's launch of the Nigerian School of Community Networks in 2021[14] marked a significant step towards building local capacity and fostering sustainable community-driven connectivity projects. The school has trained over 200 individuals, 40% of whom are women, across four editions since its inception. A British non-governmental organisation, Hello World (HW), in partnership with the Association for Progressive Communications and CITAD, introduced its Hello Hub connectivity model in Nigeria through which solar-powered digital centres are developed to provide internet access to communities.[15]

Pioneering efforts, institutional initiatives, and ongoing challenges characterise Nigeria's community-centred connectivity history. Early projects laid a solid foundation, but government and civil society efforts have yielded mixed results. Nevertheless, with renewed focus and strategic support, community networks have the potential to enhance digital inclusion and connectivity in Nigeria significantly.[16] Despite these efforts, challenges persist in terms of affordability, policy frameworks, and infrastructure gaps, particularly in rural areas.

12 https://www.fantsuam.org/project/ict4d-ff
13 https://www.isocfoundation.org/story/the-zaria-community-network-and-culture-hub/
14 https://www.apc.org/en/news/citad-launches-first-nigerian-school-community-networks
15 https://www.apc.org/en/news/community-networks-newsletter-meet-solar-powered-hubs-providing-community-centred-connectivity
16 https://www.projecthelloworld.org/news/hello-worlds-hello-hub-advancing-community-led-digital-literacyand-connectivity-in-partnership-across-nigeria

# Why Community-Centred Connectivity Initiatives Matter

Community-centred connectivity initiatives play a vital role in bridging the digital divide by providing tailored solutions that empower local communities. These initiatives can be in any of these five forms or typologies: self-provided by the community, a social cooperative, a social business, an entrepreneurial non-profit, or a government public project.[17] They reduce inequalities in education, healthcare, and economic opportunities by ensuring access to digital technologies in underserved areas. Local ownership and participation foster autonomy, enabling communities to make decisions based on their specific needs while building technical skills for long-term sustainability. This approach enhances digital inclusion and strengthens resilience by creating adaptable, community-managed networks.

Beyond connectivity, these initiatives drive socio-economic growth by opening new economic opportunities, enhancing education through digital learning, and improving healthcare access via telemedicine. They also promote social cohesion, fostering collaboration, trust, and participatory governance in digital policy discussions. By encouraging grassroots innovation and culturally relevant content, community-centred connectivity initiatives ensure that technology serves the unique needs of diverse populations, contributing to sustainable development and long-lasting impact.



17 https://www.apc.org/en/pubs/typology-community-centred-connectivity-initiatives

# What Needs To Be Addressed

Despite various interventions, significant barriers hinder the growth and sustainability of community-centred connectivity initiatives in Nigeria. These challenges span regulatory and policy gaps, financial constraints, infrastructure deficits, capacity limitations, and limited private sector involvement, all of which impede progress toward inclusive connectivity in underserved areas.

**Regulatory and Policy Barriers:** The absence of clear legal frameworks specifically addressing community networks creates uncertainty and operational difficulties. Without explicit recognition and support within national and state policies, e.g. (the varying and exorbitant cost of Right of Way levy across different states in Nigeria), these grassroots initiatives struggle to navigate the regulatory landscape, often facing the same stringent requirements as large commercial operators. This lack of tailored policies and regulations can deter the establishment and growth of community-driven connectivity solutions. The APC LocNet typology of community-centred connectivity initiatives referred to in Section 3 offers adaptable models for Nigeria's unregulated landscape, particularly through social enterprise and not-for-profit frameworks demonstrated in other Global South contexts.

**Financial Constraints:** Deploying and maintaining network infrastructure requires substantial investment, which is often beyond the reach of community-led projects. Limited access to funding sources, coupled with high costs associated with equipment, licensing, and operational expenses, poses a significant barrier. Additionally, the financial models of these networks, typically non-profit in nature, may not attract traditional investors seeking quick returns, further exacerbating funding challenges.

**Infrastructure Deficits:** The expansion of broadband services is heavily reliant on existing infrastructure. In many rural and underserved areas of Nigeria, inadequate electricity supply and poor road networks impede the deployment and maintenance of necessary telecommunications equipment. Frequent power outages can disrupt services, while inaccessible roads hinder the transportation of materials and technical personnel, leading to increased costs and project delays.

**Capacity Gaps:** Sustaining community networks requires a pool of skilled individuals capable of managing and troubleshooting technical issues. Many communities lack access to training and educational resources needed to develop this expertise. This deficiency not only affects the day-to-day operations but also the long-term viability of the networks, as reliance on external support can be both costly and unsustainable.

# Recommendations

Achieving universal connectivity and digital inclusion in Nigeria requires actionable steps from diverse stakeholders to address existing barriers and accelerate progress. This section presents strategic recommendations for policymakers, private sector players, civil society, and academia, outlining clear pathways to strengthen community-centred connectivity and advance digital inclusion.

**For Policymakers and Regulators:**

**1. Simplify Licensing Procedures and Lower Regulatory Fees for Non-Profit, Social Enterprise and Community-Led Initiatives**

The current licensing regime can be complex and financially burdensome for small-scale, non-profit community networks. To alleviate these challenges:

- Introduce license categories specifically for community networks, with simplified applications and reduced regulatory fees reflecting their non-commercial nature.
- Provide capacity-building resources to assist community groups in navigating licensing and maintaining compliance.

**2. Support Community Networks Through Policy Integration**

- Incorporate community networks into national broadband and digital inclusion strategies.
- Develop supportive regulatory frameworks that acknowledge the unique operational models of community networks.
- Foster regular engagement among government bodies, communities, and other stakeholders to create responsive policies.

**3. Strengthen the Universal Service Provision Fund (USPF) to Provide Targeted Funding and Resources for Community Networks and Community-Centred Connectivity initiatives**

- Allocate specific funding streams of the USPF budget for community network projects.
- Develop grant programs within the USPF infrastructure, training, and operational needs of community networks.
- Implement monitoring and evaluation mechanisms to ensure efficient use of funds and replicate successful models.

**4. Improve coordination between federal and state agencies.**

- Establish a Joint Federal-State Connectivity Task Force for cohesive decision-making and streamlined policy implementation.
- Harmonize Federal and State regulatory frameworks to reduce administrative burdens and encourage investments.

**5. Implement regulatory innovations such as simplified licensing and spectrum access for grassroots initiatives.**

- Learn from peer countries like Kenya, South Africa, India, and Brazil, tailoring their community connectivity solutions to Nigeria's context.
- Share resources, best practices, and successful strategies to optimise connectivity projects.

**For the Private Sector:**

1. **Collaborate with Communities:** Partner with local organisations to co-develop and implement culturally relevant and sustainable connectivity solutions.
2. **Provide Financial and Technical Support:** Offer financial and technical assistance, training programs, and access to existing telecommunications infrastructure at subsidised rates.
3. **Enable shared access to critical:** Allow community networks to utilise existing telecommunications facilities, such as towers and fibre optic cables, to reduce deployment costs for community networks.
4. **Advocate for Supportive Policies:** Work with policymakers to promote infrastructure sharing for community-led connectivity projects.

**For Civil Society Organisations:**

1. **Advocate for inclusion:** Actively participate in policymaking processes, ensure marginalised communities are represented, and hold governments accountable for broadband targets through monitoring and reporting.
2. **Promote Digital Literacy Programs:** Organize tailored workshops for diverse demographics, leveraging existing community structures and aligning efforts with national digital literacy frameworks, including the National Digital Literacy Framework (NDLF),18.
3. **Support Knowledge-Sharing Platforms:** Create forums for collective learning, share success stories, and encourage open dialogue on challenges and solutions in digital inclusion.

**For Academia/Researchers:**

**1. Conduct Research on Affordable and Scalable Solutions**

- Explore alternative technologies such as TV White Space (TVWS), mesh networks, and satellite internet solutions while testing models through pilot projects to ensure viability.
- Assess sustainability strategies through studies that evaluate how different financial and operational models can ensure the long-term sustainability of community networks, including cooperative models, pay-as-you-go systems, and hybrid public-private partnerships.

**2. Provide Data-Driven Insights to Inform Evidence-Based Policymaking**

- Map connectivity gaps, assess policy impacts, and offer recommendations for regulatory reforms based on evidence.
- Collaborate with policymakers and telecommunications companies to provide empirical evidence supporting the need for regulatory reforms and investment in community-led networks.

**3. Build local capacity:** Develop training modules and programs, establish university-community partnerships, and facilitate knowledge transfer to empower communities in deploying and managing their networks



18 https://nitda.gov.ng/wp-content/uploads/2023/07/Digital-Literacy-Framework.pdf

# Conclusion

Bridging the digital divide in Nigeria requires a multi-stakeholder approach that empowers communities to take charge of their own connectivity needs. While progress has been made, significant gaps remain in infrastructure, policy support, and financial investment due to a lack of transparency in executing some USPF initiatives. By addressing regulatory barriers, increasing funding, and building local capacity, Nigeria can create a more inclusive digital future, ensuring that every citizen has the opportunity to thrive in the digital economy.