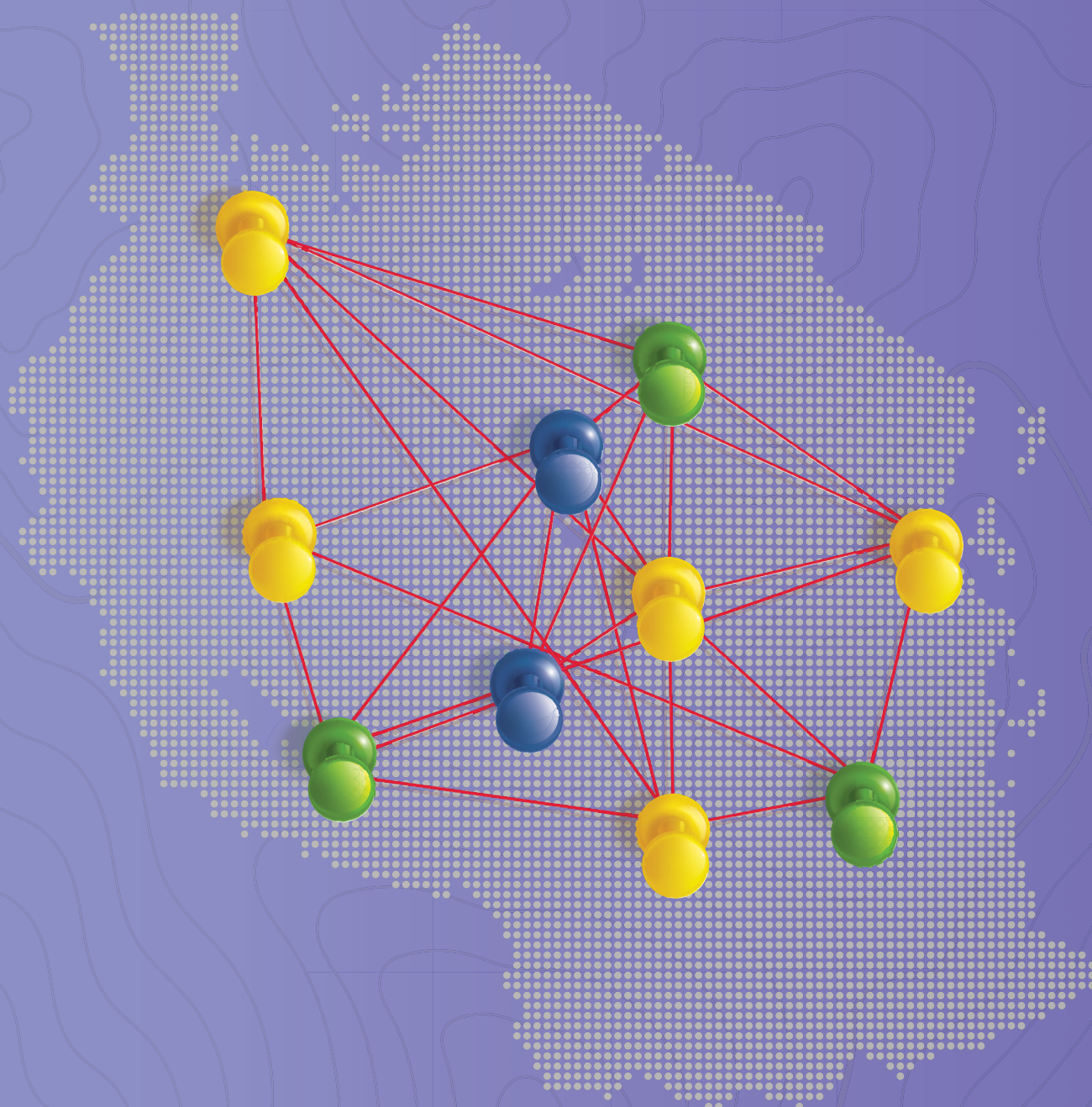


Strengthening Policy and Regulatory Frameworks for Sustainable Community Networks in Tanzania

- A Policy Brief



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Background

Paradigm Initiative in partnership with Tanzania Community Networks Polytechnic College hosted the 4th Tanzania School of Community Networks on May 27, 2025, which convened stakeholders in the Community Networks (CNs) ecosystem in Tanzania to build their capacity in running sustainable community networks, examine barriers to running sustainable Community Networks, and propose actionable policy, legal, and strategic recommendations towards addressing those barriers. The event was conducted with the aim of contributing meaningfully to the closing of the digital divide in Tanzania. This policy brief, an outcome of a stakeholder consultative session held during the school, outlines the challenges CNs face, the gaps in digital infrastructure and internet use and makes targeted recommendations to promote legal recognition, sustainable financing, and inclusive digital infrastructure for CNs and underserved communities in Tanzania.

Introduction

Tanzania has 86.8 million telecommunications subscriptions and 48 million Internet users, according to the Tanzania Communications Regulatory Authority (TCRA) Communications Statistics Report¹ published in December 2024. When considering the digital gender gap, fewer women have access to communication services than men. Similarly, 86% of rural dwellers remain unconnected to the Internet compared to 44.6% in urban areas, according to the International Telecommunications Union's 2024 report². According to GSMA's State of Mobile Internet Connectivity Report 2024³, the mobile broadband usage gap—defined as the percentage of the population covered by mobile broadband networks but not using mobile internet—stood at 60%. Additionally, 34% of the Tanzanian population lacked coverage by mobile broadband services, compared to 26% across Sub-Saharan Africa. This calls for concerted effort by all stakeholders in Tanzania towards closing the connectivity gap, especially for people in underserved communities.

While Tanzania has made notable progress in expanding internet access—with 48 million internet users reported by December 2024 according to the Tanzania Communications Regulatory Authority (TCRA) Communications Statistics Report⁴ - critical access, equity, and policy gaps continue to marginalise vast segments of the population. Paradigm Initiative's Londa 2024 report⁵ on Tanzania further highlights the underutilisation of the Universal Service Fund (USF) as a barrier to bridging this gap. These figures underscore that the digital divide in Tanzania is not only technological but structural, rooted in inequities and policy shortcomings.

Gender and Geographical Inequality

Internet access remains heavily skewed along gender and geographical lines. According to a GSMA 2021 report⁶, only 25% of women use mobile internet, compared to 40% of men, reflecting a significant gender gap in digital access. Women, particularly in rural and underserved regions, face compounded barriers due to cultural norms, lack of education, limited access to devices, and low digital literacy levels. This disparity reflects deep-rooted infrastructure deficits and social inequalities. Furthermore, government policies and digital inclusion programmes have not adequately addressed these barriers, effectively excluding women and marginalised groups from online education, e-governance, and digital financial services.

Lack of Legal Recognition for Community Networks

Community networks (CNs), though crucial in addressing last-mile connectivity, are not formally recognised in Tanzania's telecommunications regulatory framework. This legal ambiguity places CNs in a precarious position, limiting their access to funding, spectrum, and essential operational licenses. Without defined policy support or licensing mechanisms tailored to their non-commercial, grassroots nature, community networks operate in legal grey zones, stifling their growth and legitimacy. This undermines efforts to build inclusive digital ecosystems, especially in under-served

1 https://www.tcra.go.tz/uploads/text-editor/files/Communication%20Statistics%20Report%20-%20December%202024_1736975031.pdf

2 <https://www.itu.int/itu-d/reports/statistics/2024/11/10/ff24-internet-use-in-urban-and-rural-4-areas/>

3 <https://www.gsma.com/r/wp-content/uploads/2024/10/The-State-of-Mobile-Internet-Connectivity-Report-2024.pdf>

4 Ibid

5 <chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://paradigmhq.org/wp-content/uploads/2025/04/Londa-2024-2-1.pdf>

6 <https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2021/06/The-Mobile-Gender-Gap-Report-2021.pdf> (Accessed September 9, 2025)

regions.

High Infrastructure and Licensing Costs

The costs associated with deploying and maintaining telecommunication infrastructure are disproportionately high for community-run networks. Access to towers, spectrum, and core network equipment is often cost-prohibitive. In addition, **licensing requirements from the Tanzania Communications Regulatory Authority (TCRA)** are not scaled to accommodate small, non-profit entities. For example, CNs are currently subject to regulatory fees and obligations similar to large commercial operators, including the **1% Universal Communication Service Access Fund (UCSAF) levy**, which significantly impedes their financial viability. Best practice from countries such as Mexico and Kenya suggests that exemptions or subsidies for CNs—along with community-focused spectrum allocation—are more effective approaches.

Limited Digital Literacy and Inadequate Local Content

A meaningful internet experience requires more than connectivity. It demands digital literacy and accessible content. However, **digital literacy levels remain critically low**, especially among women, youth, and persons with disabilities. The lack of localised digital content—especially in Kiswahili and other indigenous languages—further alienates these groups. Even where infrastructure exists, many users lack the necessary digital skills or comprehensible content to benefit from digital tools. This gap restricts community empowerment and bars them from accessing the Internet’s transformative potential for education, health, agriculture, and entrepreneurship.

Key Findings from the 4th Tanzania School of Community Networks

1. CN Achievements: Local Models of Success

Community networks in **Tarime, Kondoa, Nyasa, and Kasulu** have demonstrated the transformative power of grassroots-led digital inclusion efforts. These networks, driven by community ownership and participation, have connected schools, supported e-learning platforms, and provided digital access to marginalised populations. Examples include:

- **Kondoa CN:** Provided international connectivity and localised services, linking more than 10 schools and surrounding communities with affordable internet.
- **Tarime CN:** Expanded ICT access to over 15 schools and launched youth digital empowerment initiatives.
- **Nyasa CN:** Operates 'E-Fahamu,' a digital education portal serving over 2,000 learners.
- **Kasulu CN:** Integrated Buha FM community radio with internet services, enhancing access to information for over 50,000 residents.

These models offer scalable, inclusive blueprints for addressing rural connectivity gaps across Tanzania.

2. Digital Literacy: A Critical Barrier

Despite physical infrastructure improvements, **digital literacy remains a major bottleneck**. Many rural users lack the skills to navigate digital tools meaningfully. This includes not only basic computer and internet skills but also awareness of cybersecurity, online safety, and responsible digital citizenship. The gap is particularly wide among women, girls, and persons with disabilities. In some communities, donated computers have gone unused due to a lack of trained personnel, effectively turning them into "museum pieces." Without urgent investment in community-based digital education programmes, connectivity alone will not translate into empowerment.

3. Affordability: Economic Exclusion Persists

While mobile broadband coverage has improved, **the cost of internet services and smart devices remains prohibitively high** for many Tanzanians. Reports from the workshop indicate that rural users may spend up to **20% of their monthly income** on mobile data, well above the global benchmark of 2%–5% set by the UN Broadband Commission. Furthermore, the high prices of smartphones and computers mean that many households, particularly those in rural areas, continue to rely on basic feature phones, further limiting their digital engagement.

4. Regulatory Gaps: Lack of Legal Recognition

Participants repeatedly emphasised the **absence of a formal regulatory framework** for community networks. Current telecommunications legislation—specifically the **Electronic and Postal Communications Act (EPOCA)** and **TCRA licensing regulations**—do not distinguish CNs from large commercial operators. This has created barriers for licensing, spectrum access, and operational legitimacy. CN leaders noted that without legal distinction, they face difficulties in scaling operations, applying for funding, or entering formal public-private partnerships. While some progress has been made in dialogue with the Tanzania Communications Regulatory Authority (TCRA), a formal, simplified regulatory path remains elusive.

Advancing Connectivity Guidelines

The WSIS Action Line C2: Information and Communication Infrastructure, lays the foundation for an inclusive information society by emphasising universal, affordable, and sustainable access to ICTs, especially in remote and underserved areas. It supports the deployment of broadband, satellite, national and regional network infrastructure, and community-oriented institutions such as schools and community centres.⁷

Other guidelines worth mentioning include the Global Digital Compact⁸ and the Africa Digital Compact⁹, which legitimise **the role of grassroots and community-driven connectivity models**, such as community networks, by embedding them within broader digital infrastructure strategies. They also explicitly call for **partnerships** (government, private sector, civil society) and **innovative technologies**—principles that resonate deeply with local, community-led efforts in Tanzania.

⁷ [un-documents.net/wsisis-poa.htm](https://www.un.org/development/desa/poa/data/index.html) (Accessed Sep 9, 2025)

⁸ [chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.un.org/global-digital-compact/sites](https://www.un.org/global-digital-compact/sites/default/files/documents/44005-doc-AU_Digital_Compact_V4.pdf) (Accessed Sep 9, 2025)

⁹ [chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://au.int/sites/default/files/documents/44005-doc-AU_Digital_Compact_V4.pdf](https://au.int/sites/default/files/documents/44005-doc-AU_Digital_Compact_V4.pdf) (Accessed Sep 9, 2025)

Policy Recommendations

1. Legal and Regulatory Reforms

- The Ministry of Information, Communication, and Information Technology and TCRA should create a legal category for CNs at district level.
- The government should amend the Electronic and Postal Communications Act (EPOCA) and the Cooperative Societies Act to include provisions for community-led digital cooperatives.
- The government should exempt CNs from the 1% UCSAF levy, recognising their non-commercial, social-service mandate.

2. Digital Inclusion and Skills

- The Ministry of Education and TCRA should prioritise women, girls, and persons with disabilities in national digital inclusion policies.
- Local governments and Civil Society Organisations (CSOs) should promote localised content in Kiswahili and indigenous languages and establish community-based ICT training centres and digital literacy hubs.

3. Public-Private-Community Partnerships (PPCPs)

- Partnerships between CNs, CSOs, and the private sector to co-fund digital infrastructure should be encouraged and pursued.
- The Ministry of Finance should incentivise donations, equipment grants, and training through tax incentives.

4. Sustainable Financing

- The government should support CNs in establishing Savings and Credit Cooperative Societies (SACCOS) and other cooperative financial models.
- The government should ensure UCSAF disbursements are transparent and accessible to CNs by focusing on digital literacy and infrastructure.
- Expand Cooperative Bank of Tanzania facilities to provide soft loans and development grants to CNs.

5. Technology and Infrastructure

- The Ministry of ICT should promote affordable last-mile solutions such as TV White Space and community Wi-Fi.
- Local governments should license and support community internet cafés as sustainable hubs and encourage resource sharing, such as tower co-location between community radios and CNs.

Conclusion

Community networks are not merely a technical intervention—they are a social impact movement fostering digital democracy. Legal reforms, institutional support, and inclusive policies are essential for CNS to thrive. By formalising and supporting community centred connectivity, Tanzania can make significant strides toward universal digital access, achieve its **Digital Economy Vision 2025–2050** and realising the WSIS Action Lines on Information and Communication Infrastructure.

