Bottom-Up Approaches to Connecting the Unconnected

Presentation by
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KICTAnet
KENYA ICT ACTION NETWORK

APC
ASSOCIATION FOR PROGRESSIVE COMMUNICATIONS

Impact of Communication Networks

Malaria Journal

BioMed Central

Research

Open Access

Role of information and communication networks in malaria survival

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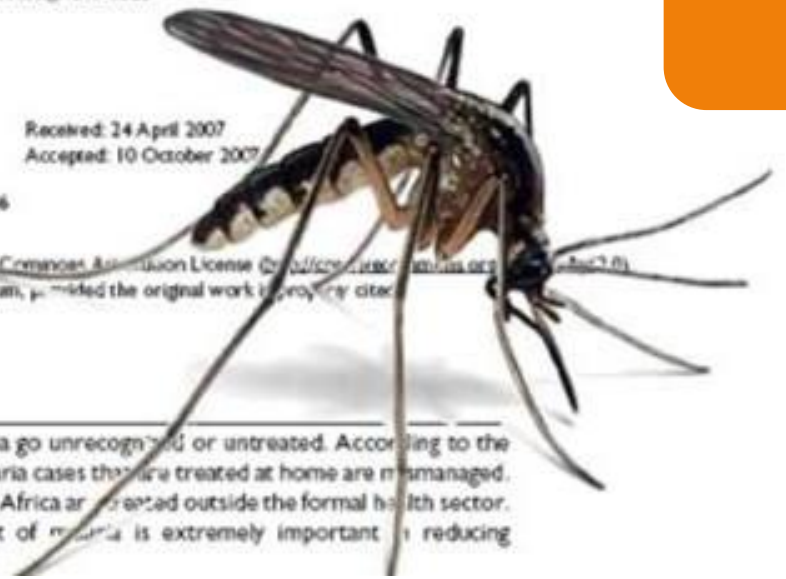


Abstract

Background: Quite often symptoms of malaria go unrecognized or untreated. According to the Multilateral Initiative on Malaria, 70% of the malaria cases that are treated at home are mismanaged. Up to 82% of all malaria episodes in sub-Saharan Africa are treated outside the formal health sector. Fast and appropriate diagnosis and treatment of malaria is extremely important in reducing morbidity and mortality.

Simple proximity to communication networks decreases the chance of dying from Malaria

Universal Affordable Access

Goal 9: Build resilient infrastructure, promote sustainable industrialization and foster innovation

9.C Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020

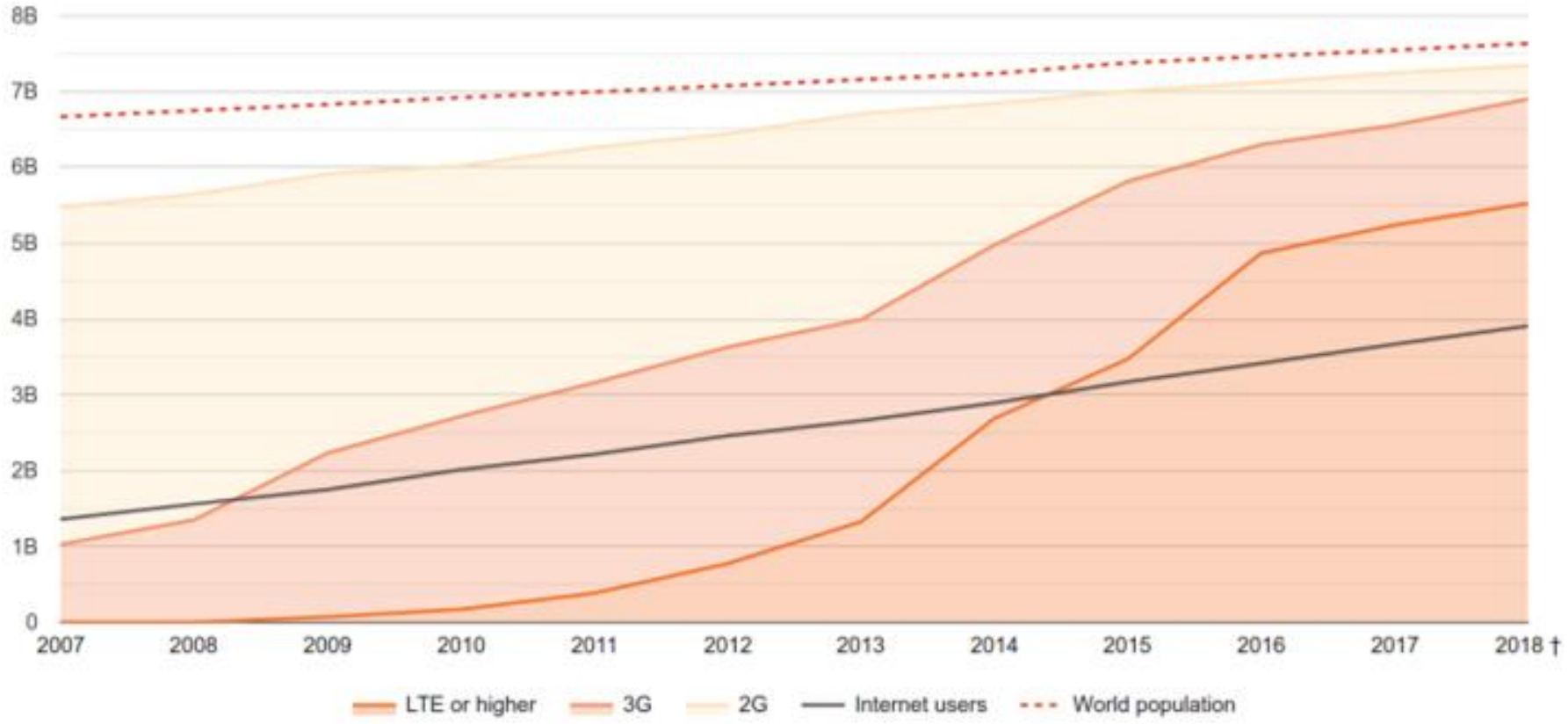
Source: https://www.un.org/sustainabledevelopment/infrastructure-industrialization/

Goal 5: Achieve gender equality and empower all women and girls

5.B Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women

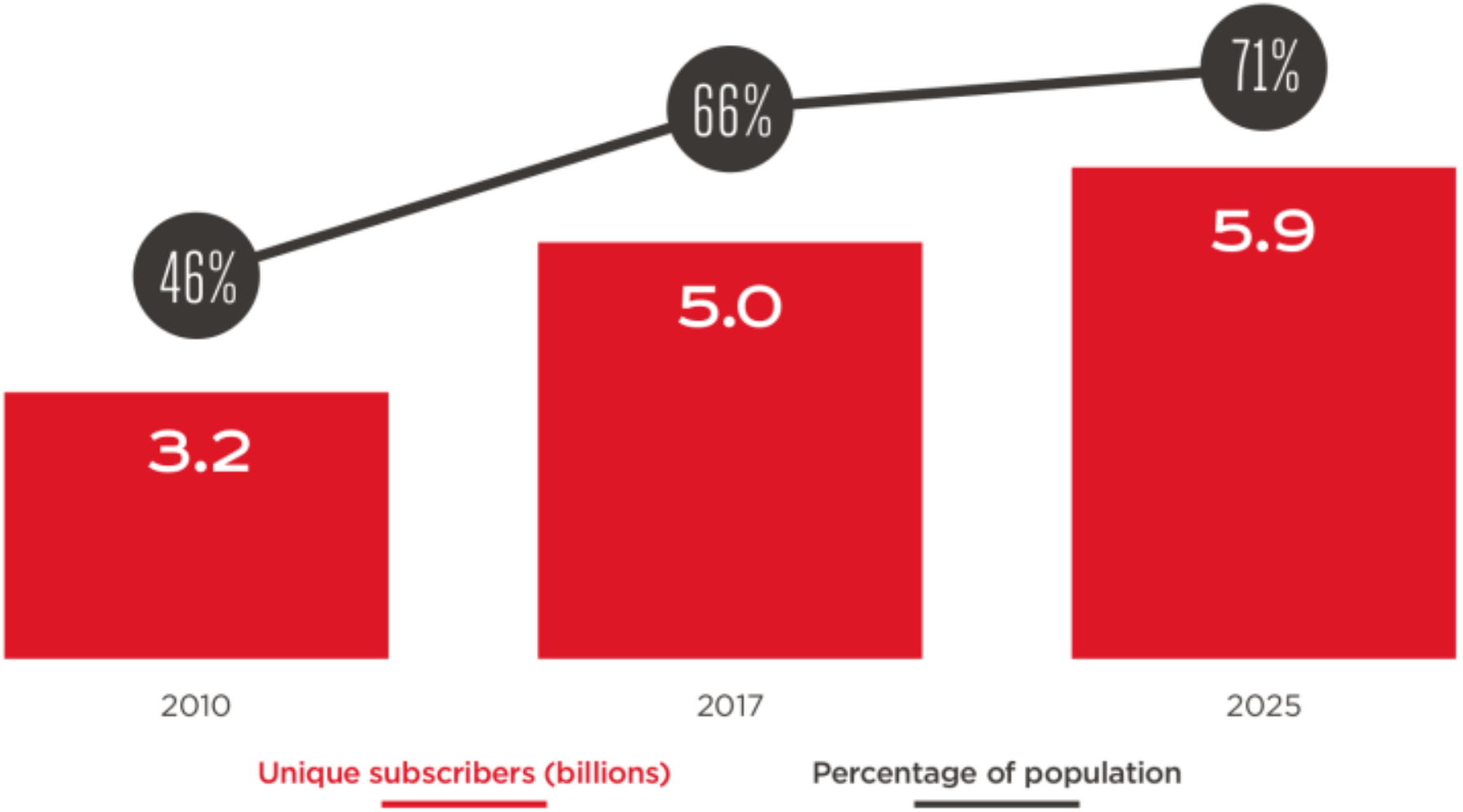
Source: https://www.un.org/sustainabledevelopment/gender-equality/

How are we doing?



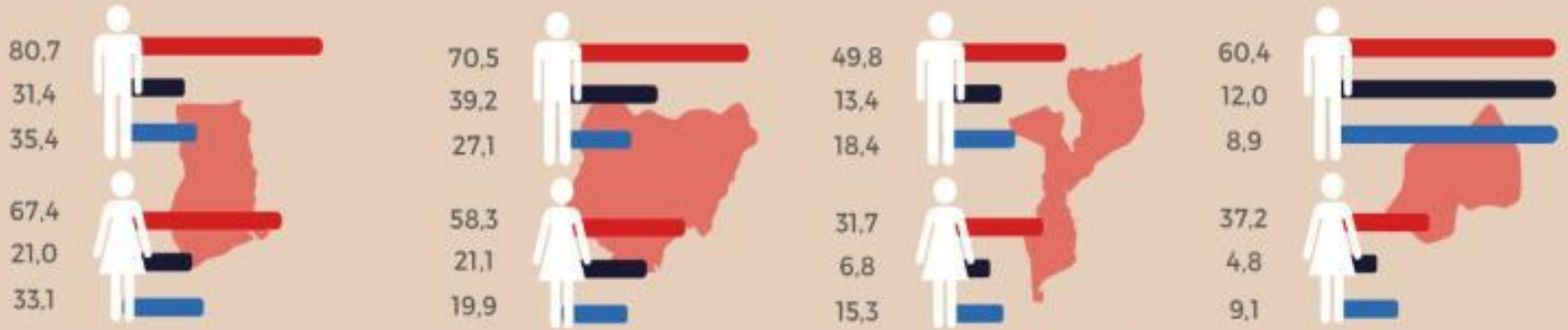
Source Report: https://unstats.un.org/sdgs/report/2019/goal-09/

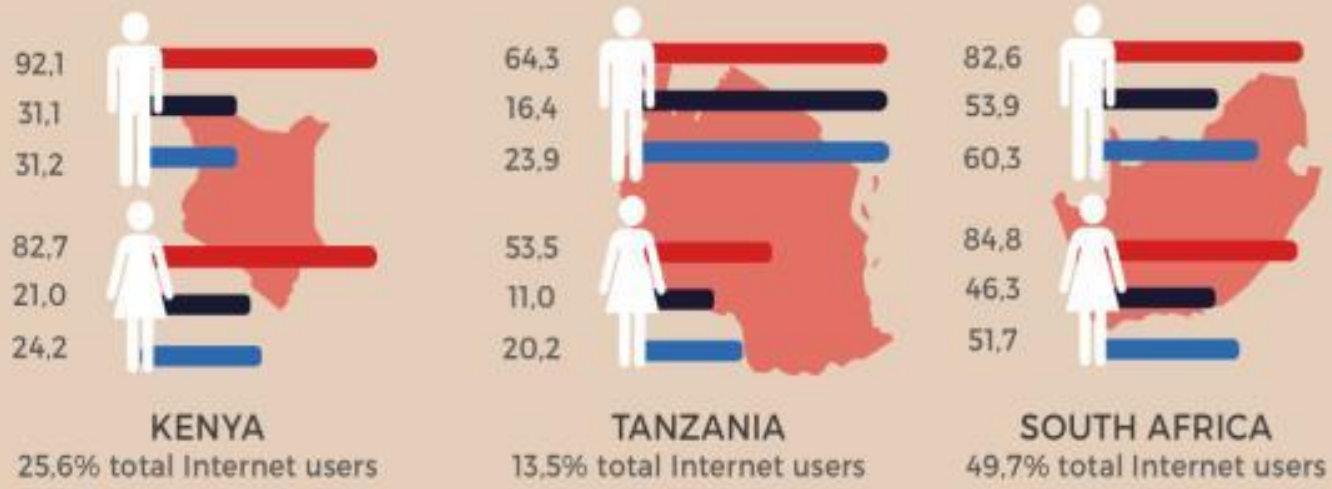
Subscriber Growth is Slowing



Source: GSMA Intelligence

Mobile ownership, Internet, and Gender



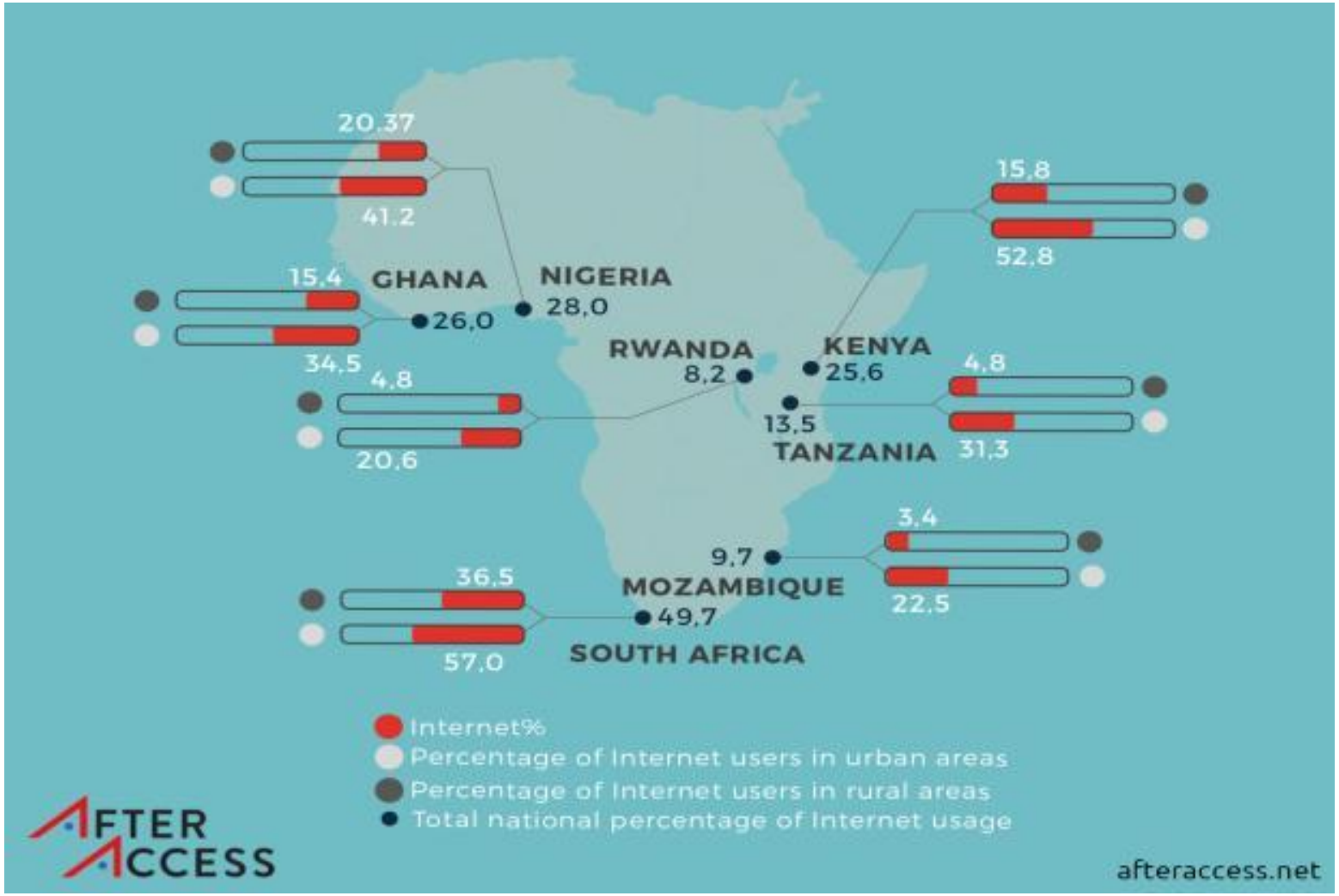


Percentage of mobile owners
Percentage of Internet users
Percentage of mobile users with a smartphone

AFTER ACCESS

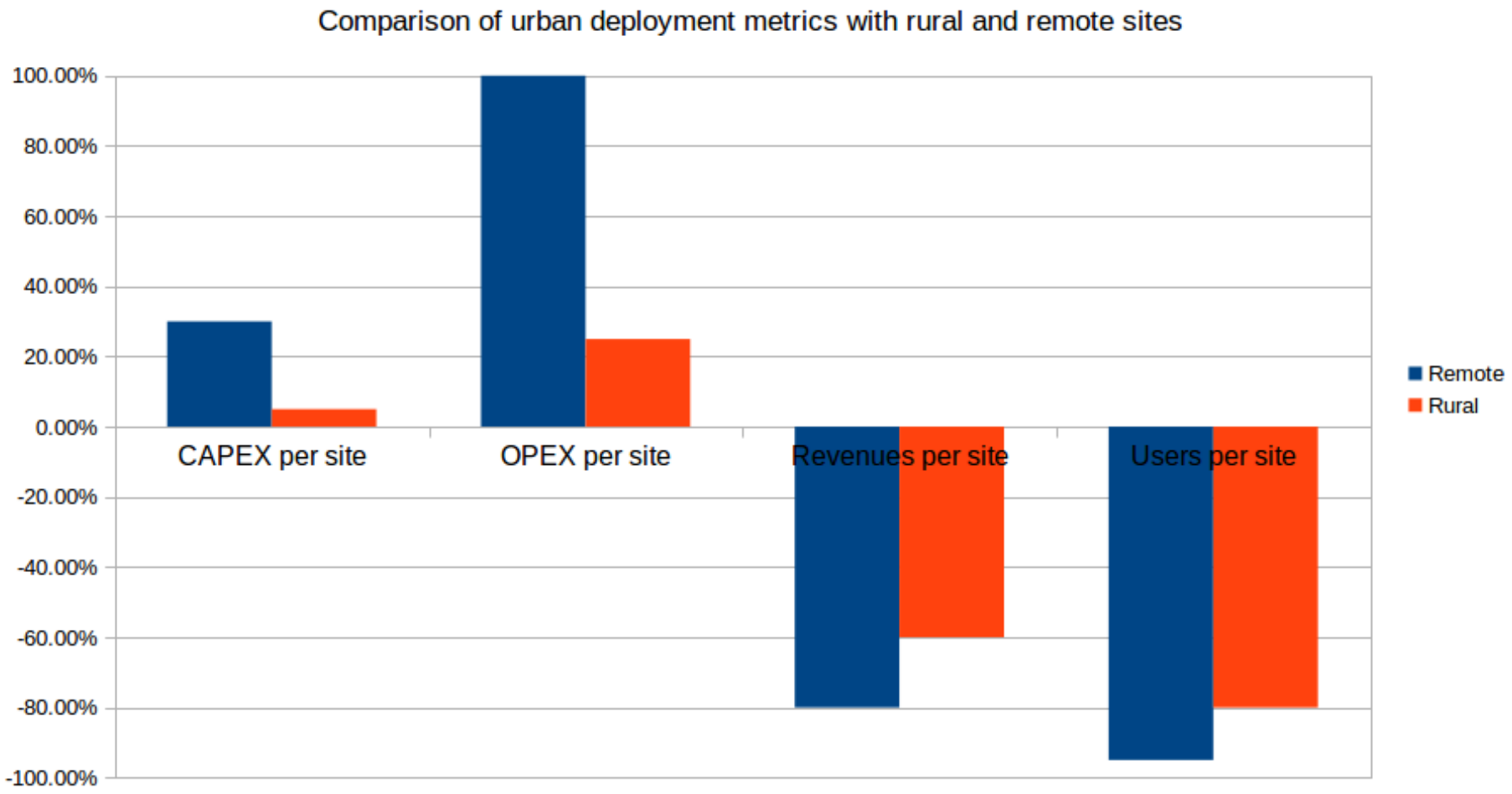
afteraccess.net

Urban-Rural Gap



Source: RIA AfterAccess report 2018 https://researchictafrica.net/wp/wp-content/uploads/2019/05/2019_After-Access_Africa-Comparative-report.pdf

Traditional Economics Do Not Work



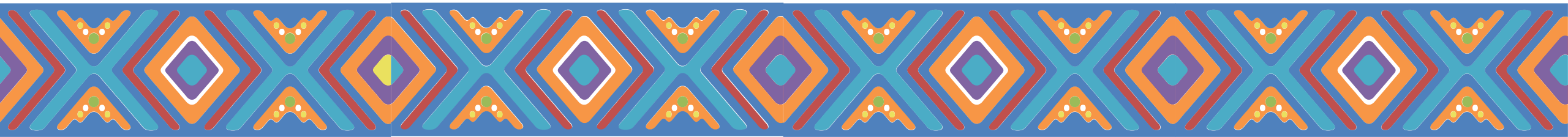
“Connecting people in poverty is predominantly a matter of affordability, but the business-as-usual approach – setting prices to recover infrastructure investment – will never be affordable for the poorest in society.”

Digital Lives Report

Community Network Initiatives

"In Africa, a community network is not simply telecommunications infrastructure deployed and operated by citizens to meet their own communication needs; it is a tool to improve what a community is already doing in terms of their growth and development, by contributing to a local ecosystem that enhances the daily lives of those staying in the community."

Source: Understanding Community Networks in Africa
https://www.internetsociety.org/resources/doc/2017/supporting-the-creation-and-scalability-of-affordable-access-solutions-understanding-community-networks-in-africa/



Community Networks in Africa

- 37 initiatives
- 12 countries
- 30 are currently active
- 60% in South Africa
- Bottom-up models started by local communities to address connectivity gaps
- Human –centered – built with, for and by the community
- Catalyze local economies and drive adoption of technology

Source: Understanding Community Networks in Africa
https://www.internetsociety.org/resources/doc/2017/supporting-the-creation-and-scalability-of-affordable-access-solutions-understanding-community-networks-in-africa/

Zenzeleni Mankosi Community Network

Certificate issued by the Commissioner of Companies & Intellectual Property Commission on Monday, March 17, 2014 at 13:43

Certificate of Registration

CR10

Companies and Intellectual Property Commission
a member of the dti group

REPUBLIC OF SOUTH AFRICA
CO-OPERATIVES ACT, 2005

CERTIFICATE OF REGISTRATION
OF A CO-OPERATIVE
(SECTION 7)

I hereby certify that

ZENZELENI TELECOMMUNICATIONS NETWORK PRIMARY CO-OPERATIVE LIMITED

was registered on

5/2/2014

under Section 7 of the Co-Operatives Act, 2005 (Act 14 of 2005),
with registration number

2014 / 002051 / 24

as a Primary Co-Operative with a limited liability.
Its constitution was also registered on the same date.

I further certify that

ZENZELENI TELECOMMUNICATIONS NETWORK PRIMARY CO-OPERATIVE LIMITED

is with effect from 5/2/2014 entitled to commence business.

REGISTRAR OF CO-OPERATIVES

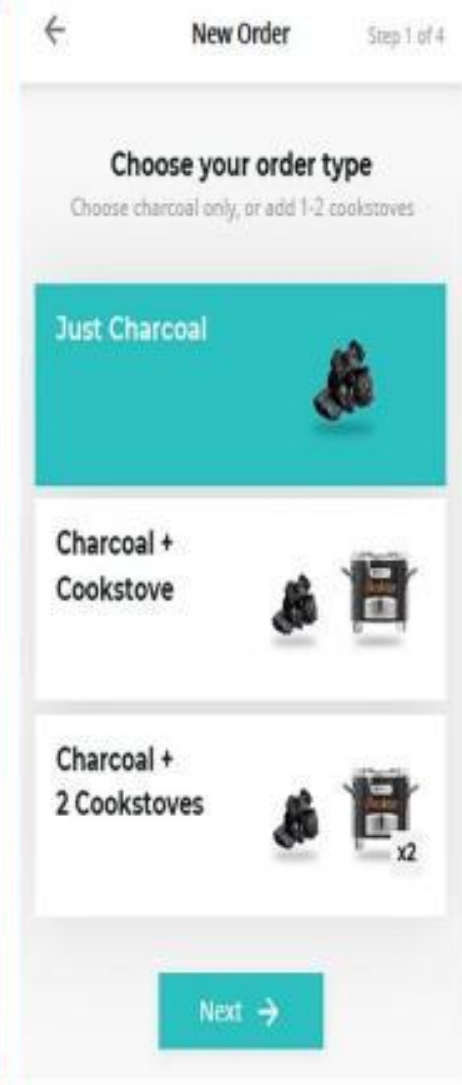

Zenzeleni Networks
• 59 hotspots, 11 business
• 5.5K unique devices
• < 2 USD/month for unlimited internet
WiFi

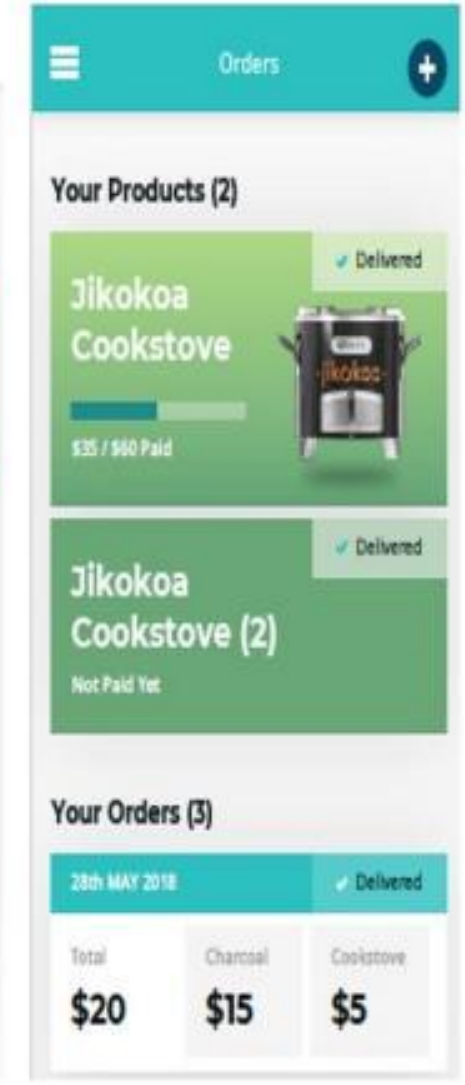
PamojaNET – DRC

10 businesses subsidizes free internet for 4000 public users

WiFi + GSM

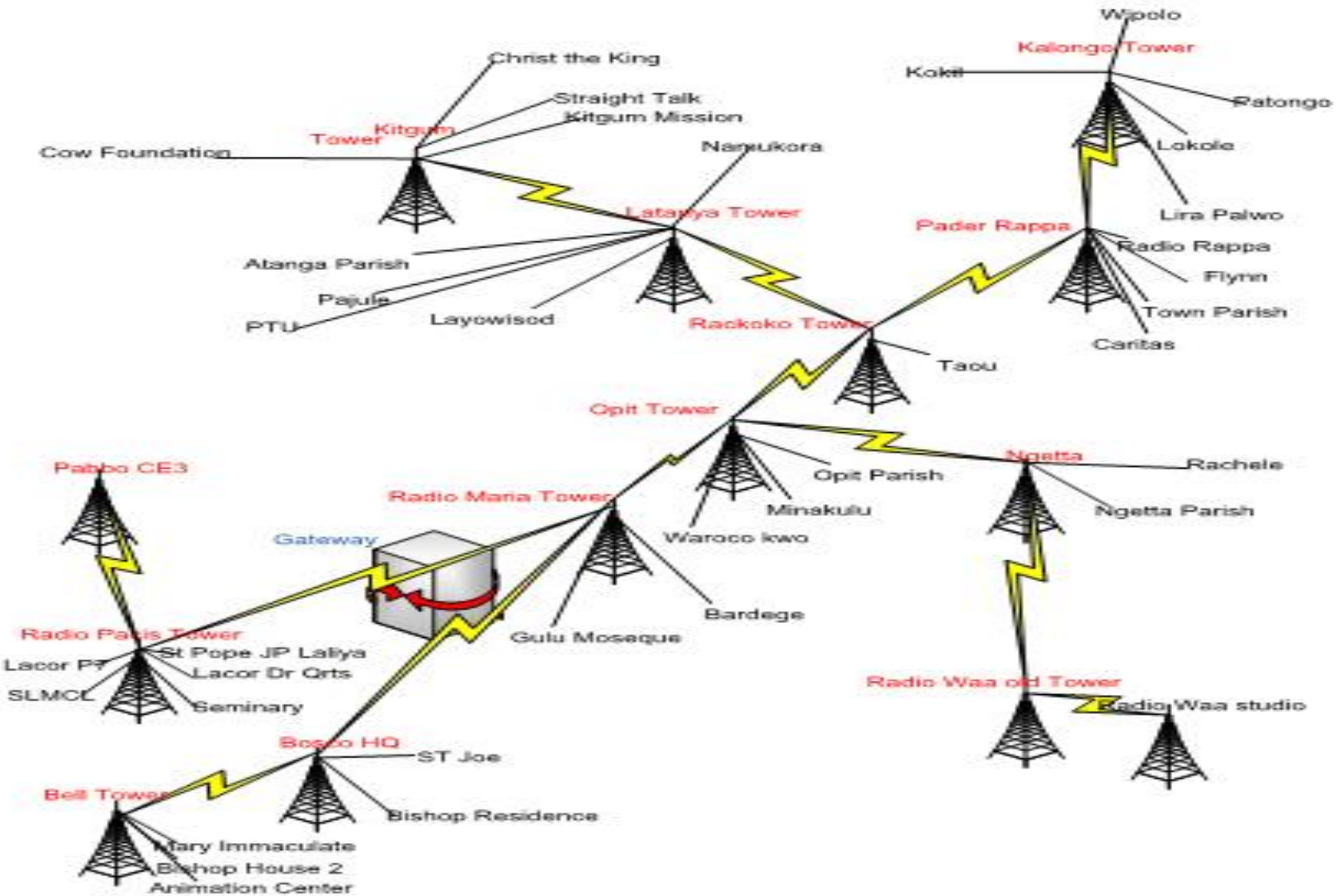
Locally Relevant Mobile Application



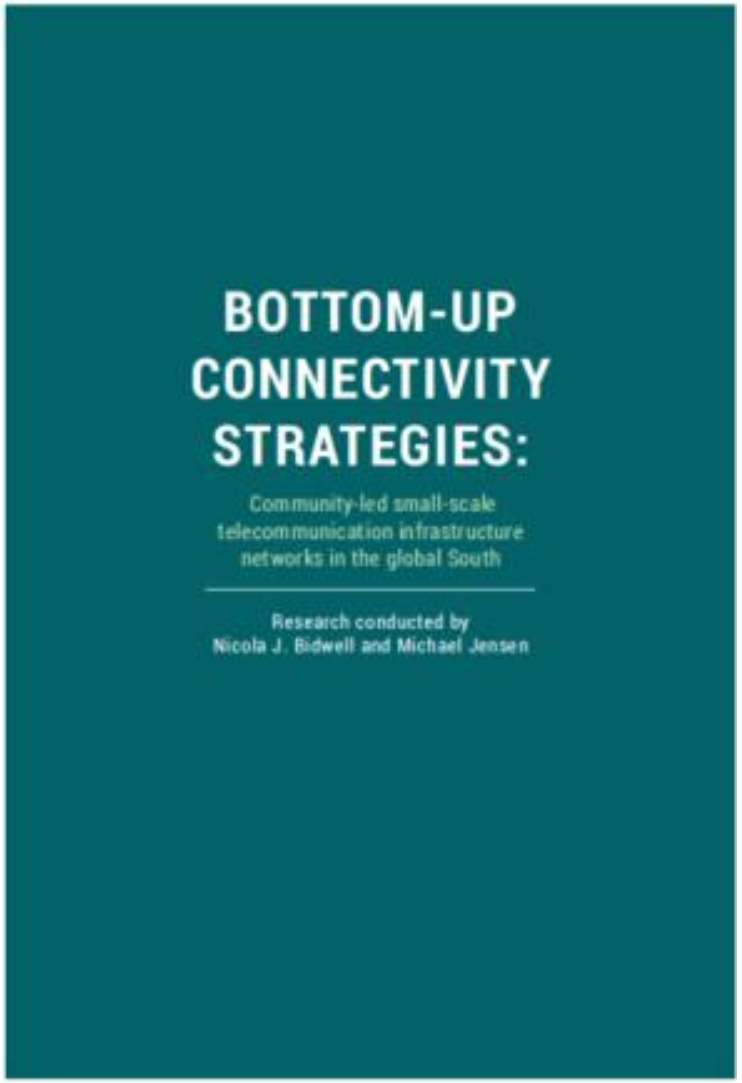



BOSCO Uganda
50K beneficiaries, 80 workstations spread across 51 centers
WiFi + Solar

Network Map


Wipolo
Kalongo Tower
Kokil
Patongo
Lokole
Lira Palwo
Christ the King
Straight Talk
Kitgum Mission
Kitgum Tower
Cow Foundation
Nangukora
Latanya Tower
Pader Rappa
Radio Rappa
Flynn
Town Parish
Caritas
Atanga Parish
Pajule
PTU
Layowisod
Rackoko Tower
Tacu
Opit Tower
Opit Parish
Minakulu
Ngetta
Rachele
Ngetta Parish
Pabbo CE3
Radio Maria Tower
Waroco kwo
Gateway
Bardege
Gulu Moseque
Radio Pabbo Tower
St Pope JP Laliya
Lacor Dr Qrts
Seminary
Radio Waa old Tower
Radio Waa studio
Bosco HQ
ST Joe
Bell Tower
Bishop Residence
Mary Immaculate
Bishop House 2
Animation Center

CNs Social and Economic Impact



- Local control over how the network is used and the content that is provided over the network.
- Attention to the needs of marginalised people, including women and older people.
- Lower costs and retention of more funds within the community.
- Foster a sense of agency and empowerment

Source: https://www.apc.org/connectivitystrategies

Regulatory enablers

- Smaller license areas & license exemptions
- Secondary use of spectrum (IMT and TVWS) & social licenses
- More WiFi (6 GHz USA and EU) and license-exempt spectrum
- Support from Universal Service Funds and others
- Transparency in internet infrastructure
- Access to fiber/backhaul and interconnection

Policy Framework

AFRICAN UNION
الاتحاد الأفريقي
UNION AFRICAINE
UNIÃO AFRICANA

Addis Ababa, ETHIOPIA, P.O. Box 3243 Telephone: 011-551 7700 Fax: 011-551 7844
Website: www.au.int

SPECIALIZED TECHNICAL COMMITTEE ON
COMMUNICATION AND INFORMATION TECHNOLOGIES (STC-CICT)
THIRD ORDINARY SESSION,
22 - 26 OCTOBER 2019,
SHARM EL SHEIKH, EGYPT

2019 SHARM EL SHEIKH DECLARATION
STC – CICT-3

FURTHER DIRECT THE AFRICAN UNION COMMISSION TO:

29. **PROMOTE** the formulation of strategy and pilot projects for Unlocking Access to Basic Infrastructure and Services for Rural and Remote Areas including Indigenous Community Networks, and develop guidelines on legislation on deployment of technologies and ICT applications, to accelerate infrastructure role out in collaboration with ATU and other regional institutions;

Issue		Current Status		Way Forward	Responsibility and Time Frame
		Policy	Legislation (Acts and Regulations		
Community Based Operators	Devolve ownership of infrastructure and services to the grassroots and counties	No specific policy that encourages investments in ICT at grassroots	No specific legislation required	Provide for enabling policy and regulatory framework	MoICT, the ICT Regulator 2013

Source: http://icta.go.ke/pdf/The_National_Broadband_Strategy.pdf

the doc

Department:
Communications
REPUBLIC OF SOUTH AFRICA

SOUTH AFRICA CONNECT: CREATING OPPORTUNITIES, ENSURING INCLUSION

South Africa's Broadband Policy

20 NOVEMBER 2013

7.3.5 Recommendations to the Minister

- Encourage the entrance of new operators into the market, including WISPs, community networks, and co-operatives – especially those that can serve under-serviced areas - ensuring that they have access to appropriate spectrum at an affordable cost;

Source: https://www.dtps.gov.za/index.php?option=com_phocadownload&view=category&download=90:broadband-policy-gg37119&id=21:broadband&Itemid=333

Connecting Africa Through Broadband

BROADBAND COMMISSION FOR SUSTAINABLE DEVELOPMENT

Objective 1: Ensure that the commercial broadband ICT market is open and structurally prepared for competitive private investment

Immediate/Short-Term Actions:

- Adopt open wholesale and retail telecommunications market entry policies, especially competitive and unified licensing regimes, and liberal, dynamic spectrum policies. Such policies should also accommodate community and nonprofit focused network operators who offer services in underserved areas.

Objective 5: Provide direct funding support for extending affordable broadband access to commercially challenging rural and remote areas, to women, and low-income users

Objective 6: Increase ICT market commercial attractiveness through demand stimulation and affordability initiatives

Responsible Parties:

- Private sector, including satellite operators and small, medium and/or alternative providers, such as community networks, rural operators, among others.


“Never doubt that a small group of thoughtful, committed, citizens can change the world. Indeed, it is the only thing that ever has.”
— Margaret Mead

Digital inclusion is also enabling people to connect themselves

Current model of internet expansion is plateauing

Community networks are proven viable alternatives

More enabling policy and regulatory frameworks are required

Thanks!

Any questions?

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