



**Nurturing grassroots broadband:
A case for Community Networks**

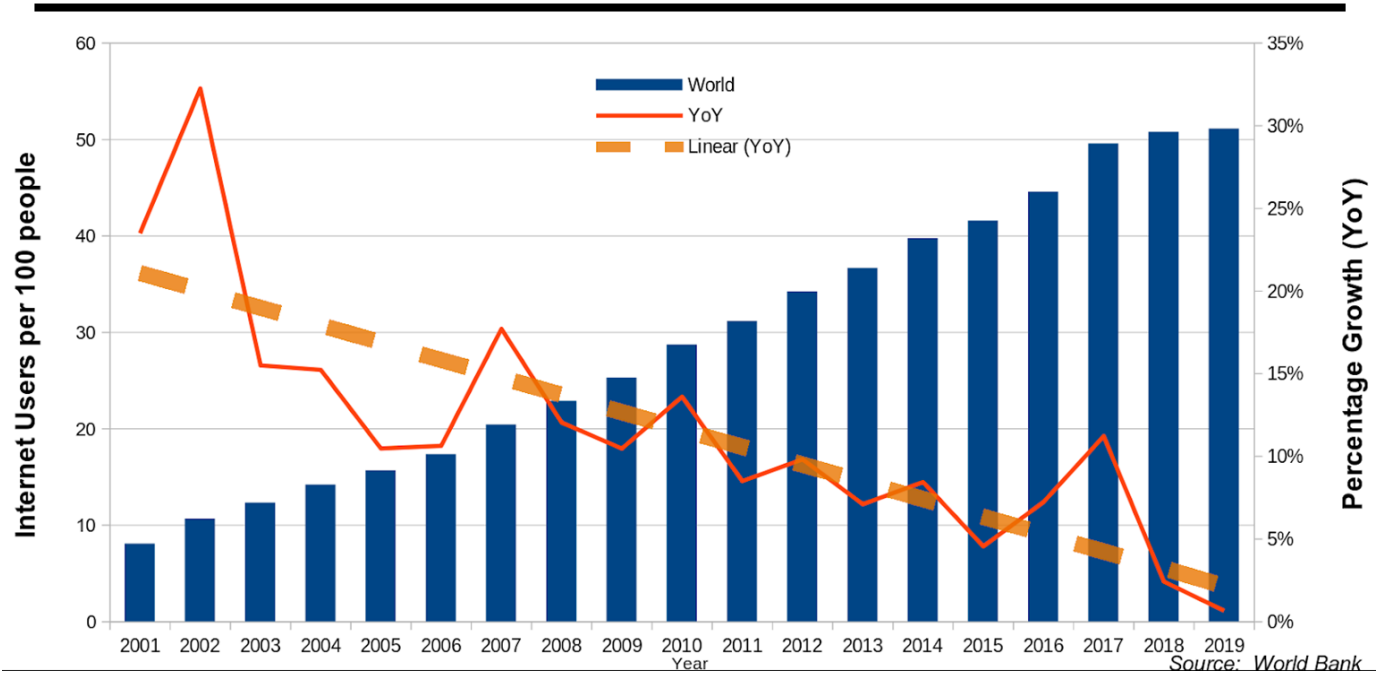
Purpose of the session

- The **overall purpose** of the session is to **Kickstart conversations** on the Community Network (CN) model as a solution for fostering sustainable expansion of internet connectivity for rural, hard to reach last mile communities.
- Specifically the presentation will;
 - Highlight the challenges of connectivity especially for rural, hard to reach last mile communities who are mostly unconnected.
 - Introduce the Community Networks Model, justification, challenges and opportunities
 - Share CN best practices
 - Draw recommendations

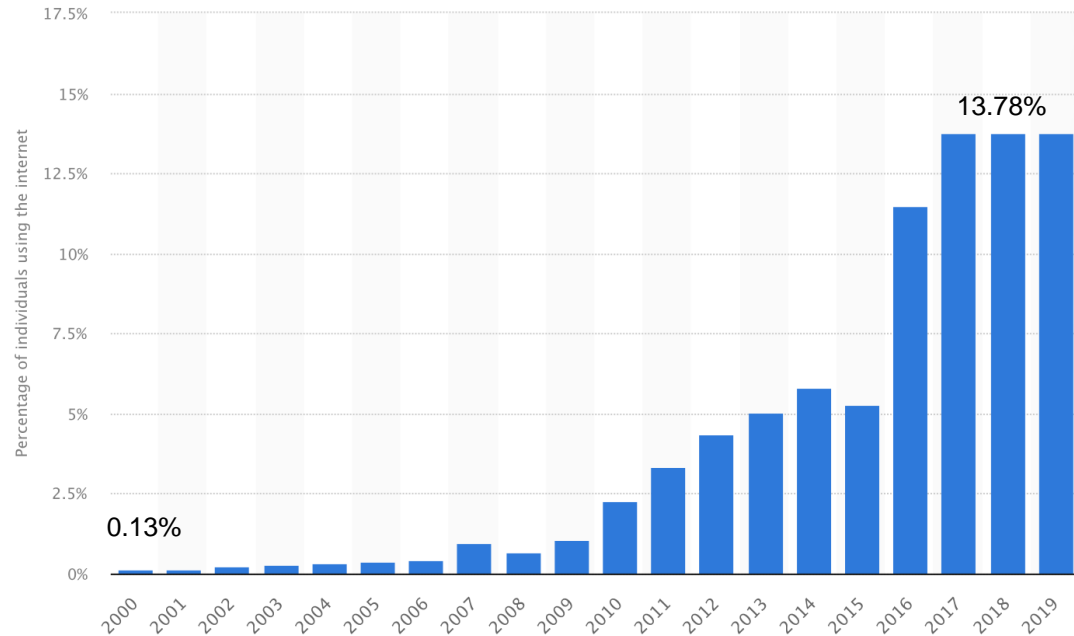
Introduction

- “When people have access to the internet, amazing things happen”
 - Share ideas;
 - Make tools;
 - Delivery health care;
 - Deliver education;
 - Conduct business.
- In light of covid-19 internet is defining our day to day lives
- Internet is key to keeping the global promise (the 17 UNSDGs) and the national promise (agenda 2063)

Growth in internet users (Global)



Growth in internet users (Malawi)



What are the figures telling us?



The strategy for connecting user is not working, we need to RE-STRATEGIZE

- The easier population to connect is already connected.
 - A larger population in locations with coverage cant afford internet
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Jar of Stones Analogy



Big ISP Operators

Even though the stones appear to fill the jar, it is less than half full by volume.

Jar of Stones Analogy



**Smaller
Internet Service Providers**

Smaller operators don't necessarily need to scale individually but rather scale in number of operators

Jar of Stones Analogy



Social Purpose Operator Networks

Cooperatives and community-owned models may create sustainable access where commercial models fail.

What are Community Networks



- Community networks are telecommunication infrastructure built with, by and for the community.
- These networks rely on local community members active involvement in the design, implementation and operation processes. Some characteristics of community networks are: collective ownership, open design, open participation and localised content and services.
- CNs have existed in Africa for over 10 years but mostly in isolation. In 2016 Carlos Rey Moreno & Michael Graaf did the first mapping for CNs in Africa and identified 37 initiatives with 17 being active
- First CN summit was held in Nairobi bringing operators from across Africa

CASE STUDY

The village that built its own wi-fi network - BBC Africa



RECENT EXAMPLES

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- The Communications Authority of Kenya (CA) formulated a [Licensing and Shared Spectrum Framework for Community Networks](#), 2021.
 - The Postal and Telecommunications Regulatory Authority of Zimbabwe is rolling out Community Networks in all the provinces of Zimbabwe, May 2021.
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Recommendations for growth of grassroots broadband

Innovative licensing

- Exclusively for not-for-profit Cooperative Societies, Community-Based Organizations and Non-Governmental Organisations.
- Limited in geographic scope and focused on rural and hard to reach communities
- Low Initial and annual fees.

Innovative Spectrum Sharing

- Review spectrum fee framework reducing fees for underserved/rural areas.
- spectrum fee waiver scheme for community networks and/or small network operators.
- review of international approaches to the creation of more localised access to IMT spectrum
- Review the Guidelines on the use of Radiofrequency Spectrum by Short Range Devices to amend EIRP limits Wi-Fi PtP and PtMP use.
- Review use of other license-exempt bands for PtP & PtMP use to include 24GHz & 60GHz.
- Expand the range of frequencies available for license-exempt use, especially in the 5-6 GHz range

Other Considerations

- Discussion of access to Backhaul and Infrastructure
 - Access to spectrum for small operators
 - Infrastructure sharing e.g. access to masts
 - Possible collaboration with National Research & Education Network (MAREN)
 - Satellite
- Potential resource mobilisation with funding partners

The next big thing
will be a lot of small things.

Thank you

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