National Broadband Strategy 2019-2023

By

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Overview of the Broadband Strategy

1. **Process of Broadband Strategy Development**

2 **Key Elements**
- Objectives
- Broadband Definition
- Focus Areas/Initiatives
- Implementation Roadmap
- Key Observations

3. **Way Forward – Institution Arrangements**

Process for Broadband Strategy Development

- The Government under the Digital Malawi Project developed the Broadband Strategy (Target 2019-2023).
  - MACRA under the Ministry
  - Stakeholders consultation meetings
- Technical assistant Consultant – ICC
- *Broadband Strategy*
  - *Implementation Framework*
  - *Targets for 2019 to 2023*

Key Elements of the Broadband Strategy

- Broadband Strategy Objectives
- Broadband Definition
- Broadband Targets
- Applicable Technologies
- Focus Areas
- Implementation Roadmap
- Institution Arrangements

Strategic Objective

- **To provide Strategic Direction for the promotion of universal access of Broadband**

- ***BB plays a vital role in improving global SDGs***
- ***Supports provision of basic needs (education, healthcare, agriculture, trade)***
- ***lift people out of poverty through e-commerce and job growth***

Strategy Objectives

- To promote BB deployment,
- To increase BB adoption and usage and
- Ensure affordable broadband services

- *To enable Malawi participate in the global economy and take advantage of emerging digital innovation opportunities*

Broadband Definition

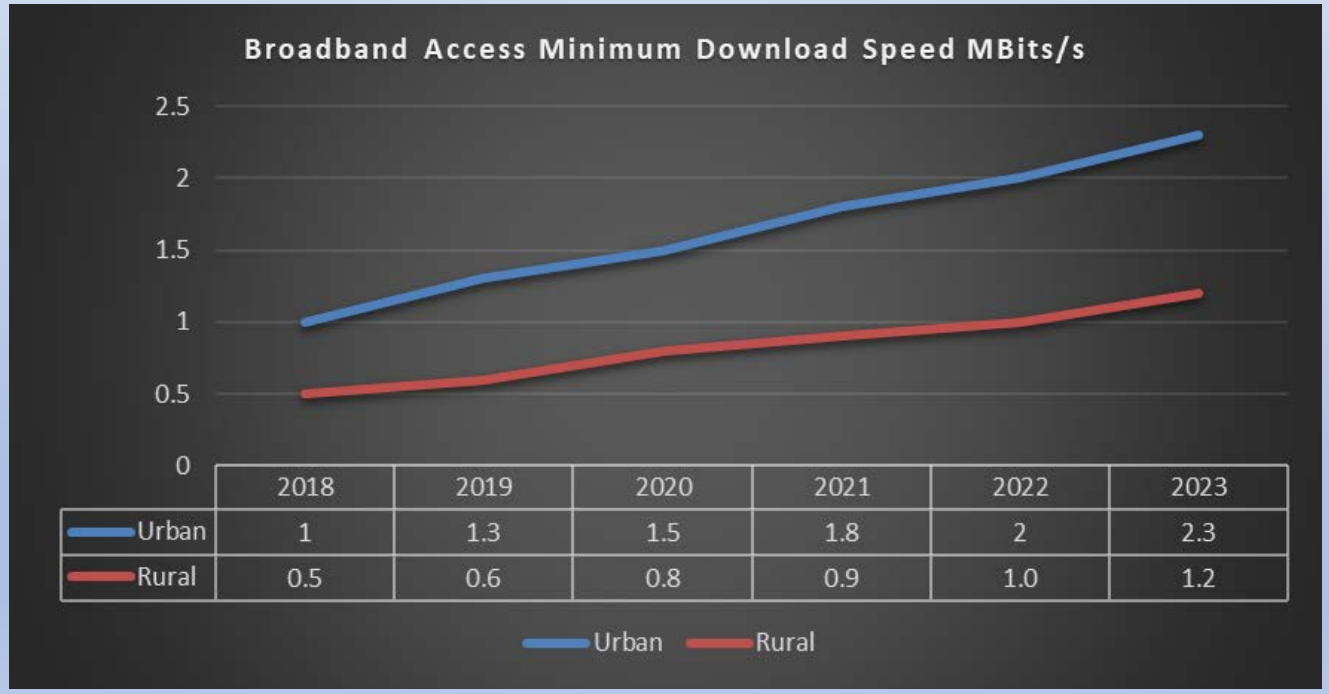
- **Broadband Definition**
- ***Broadband is an ecosystem of high speed and high quality networks that provides high value information and communications to users***

  - ***Network definition*** -
    - *designed to carry large volume of data in a manner that end-users experience an acceptable QoS –*
    - *A network that transits the data at a high speed.*
    - Always on

Key Elements of the Broadband Strategy

Broadband speed targets

- *In 2023, Broadband access minimum speed projected at*
  - *1.2MBps (rural)*
  - *2.3Mbps (urban)*

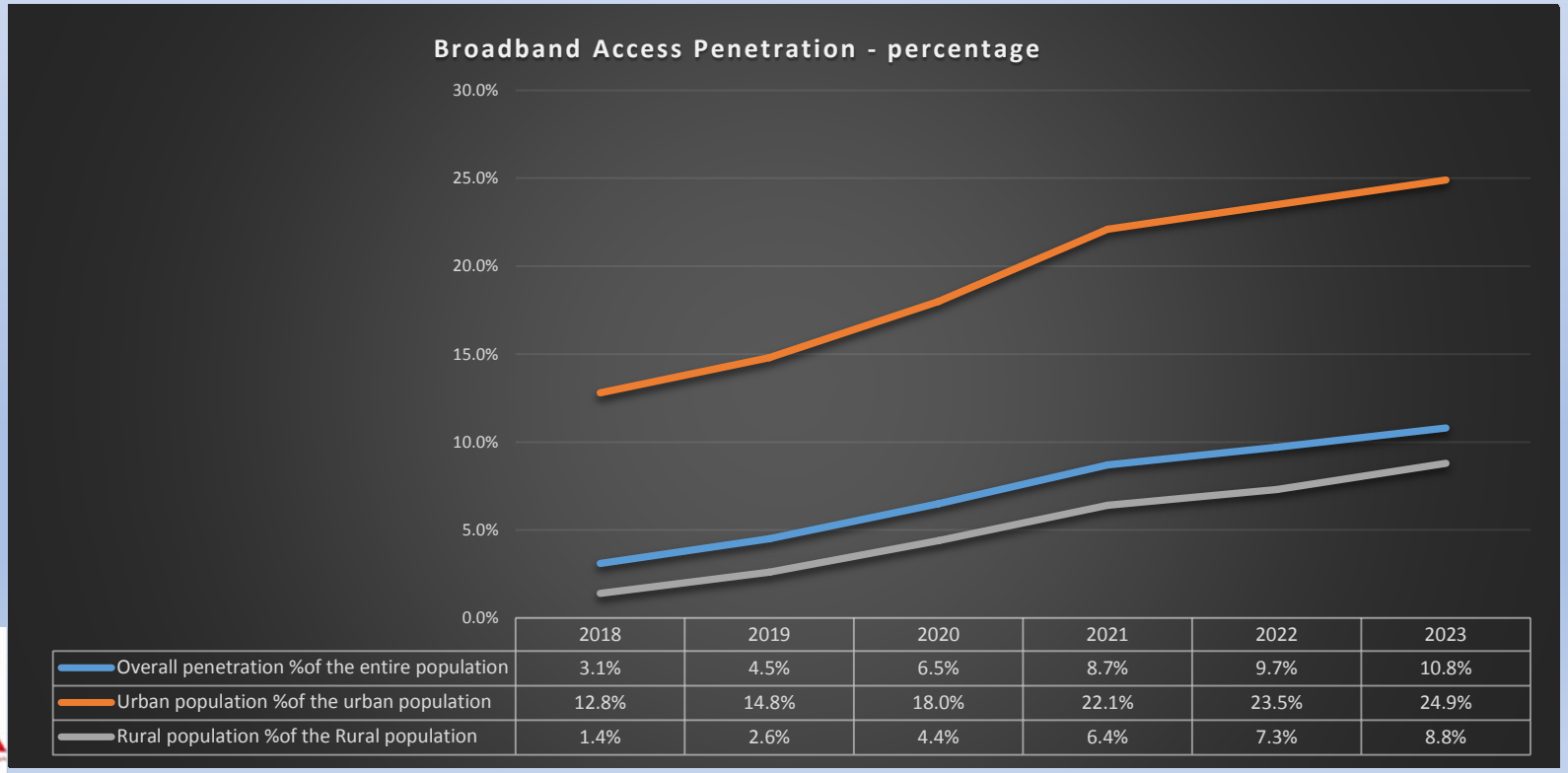


	2018	2019	2020	2021	2022	2023
Urban	1	1.3	1.5	1.8	2	2.3
Rural	0.5	0.6	0.8	0.9	1.0	1.2

Key Elements of the Broadband Strategy

BB access penetration targets (2023)

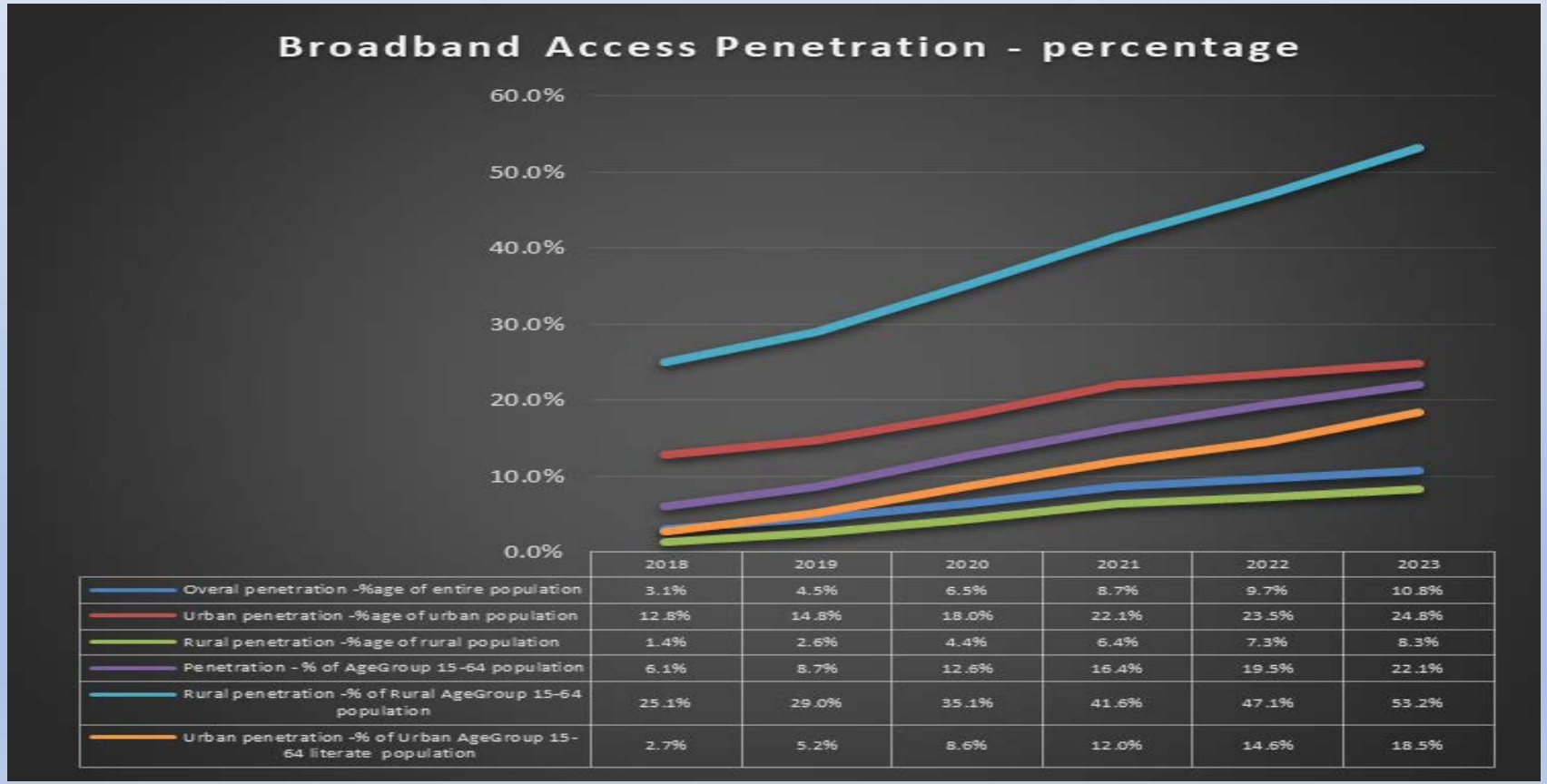
- *10.8% (entire population)*
- *24.9% (urban)*
- *8.8% (rural)*



	2018	2019	2020	2021	2022	2023
Overall penetration %of the entire population	3.1%	4.5%	6.5%	8.7%	9.7%	10.8%
Urban population %of the urban population	12.8%	14.8%	18.0%	22.1%	23.5%	24.9%
Rural population %of the Rural population	1.4%	2.6%	4.4%	6.4%	7.3%	8.8%

Key Elements - Targeted age group 15 to 64

- **Age group 15-64 is likely to impose the most BB Demand and be the economically active age group on usage.**



	2018	2019	2020	2021	2022	2023
Overal penetration -%age of entire population	3.1%	4.5%	6.5%	8.7%	9.7%	10.8%
Urban penetration -%age of urban population	12.8%	14.8%	18.0%	22.1%	23.5%	24.8%
Rural penetration -%age of rural population	1.4%	2.6%	4.4%	6.4%	7.3%	8.3%
Penetration - % of AgeGroup 15-64 population	6.1%	8.7%	12.6%	16.4%	19.5%	22.1%
Rural penetration -% of Rural AgeGroup 15-64 population	25.1%	29.0%	35.1%	41.6%	47.1%	53.2%
Urban penetration -% of Urban AgeGroup 15-64 literate population	2.7%	5.2%	8.6%	12.0%	14.6%	18.5%

Broadband User Categories

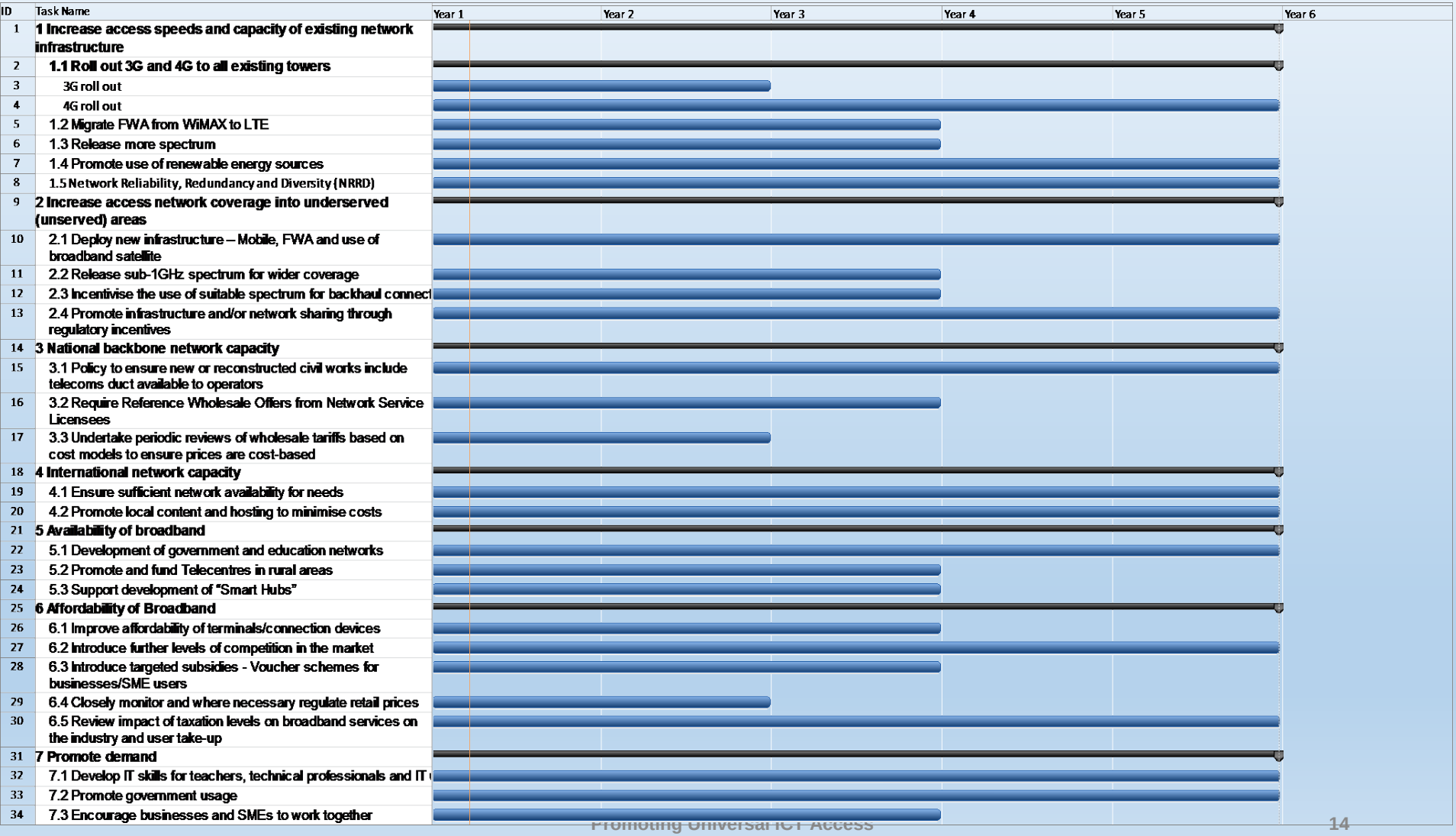
- Individual Consumers
- Households
- Shared Access –
  - Type I Small Organisations
  - Community Centres
  - Small to Medium Businesses
  - Local Health Offices
  - Education (Schools)

Applicable Broadband Technologies

- The Strategy presents different BB Technologies which have advantages, disadvantages and sustainability.
  - Wired technologies have different technical capacities
    - provides high-speed internet to end users
    - Mostly used for backhaul
    - limitations include investments/deployment costs and are venerable to vandalism
  - Wireless technologies:
    - capacity and connection speed enjoyed by end users are lower as compared to wired technologies
    - can deliver mobile broadband access (not only to "fixed" locations), but also to the people on the move
    - Terminals are used indoors but also on the move.

Implementation Framework Focus Areas

Broadband Implementation Roadmap



Implementation Roadmap

- The BB Roadmap Targets calls for a close cooperation between operators and MACRA to plan the roll out in alignment with the broadband roadmap to ensure issues are identified at an early stage and addressed appropriately.

Key Observations - Implementation challenges

- Inadequate ICT skills and training and illiteracy level esp for the rural population
- Affordability limitations due to widespread income insecurity/limitations on cash incomes, including likely with respect to both terminals and service costs;
- The remainder of the population and particularly large segments of the rural population will require subsidized/free access, including provision of terminals through measures like shared access/telecentres.
- Lack of electricity and low dependability of power grid where there is access

Strengths

- Coms Act givies powers to Minister, so control structure is clear
- ICT Policy has been developed along with ICT Masterplan and Wireless Broadband Access Masterplan
- Licensing regime and functioning NRA are in place
- Cost modelling study has recently been completed and wholesale prices will move to be more in line with costs

Weaknesses

- High cost of terminals and low penetration
- Lack of electricity and low dependability of power grid where there is access
- Lack of local content
- Shortage of ICT skills and training
- High taxation levels
- Inadequate infrastructure backbone and access

Key Observations

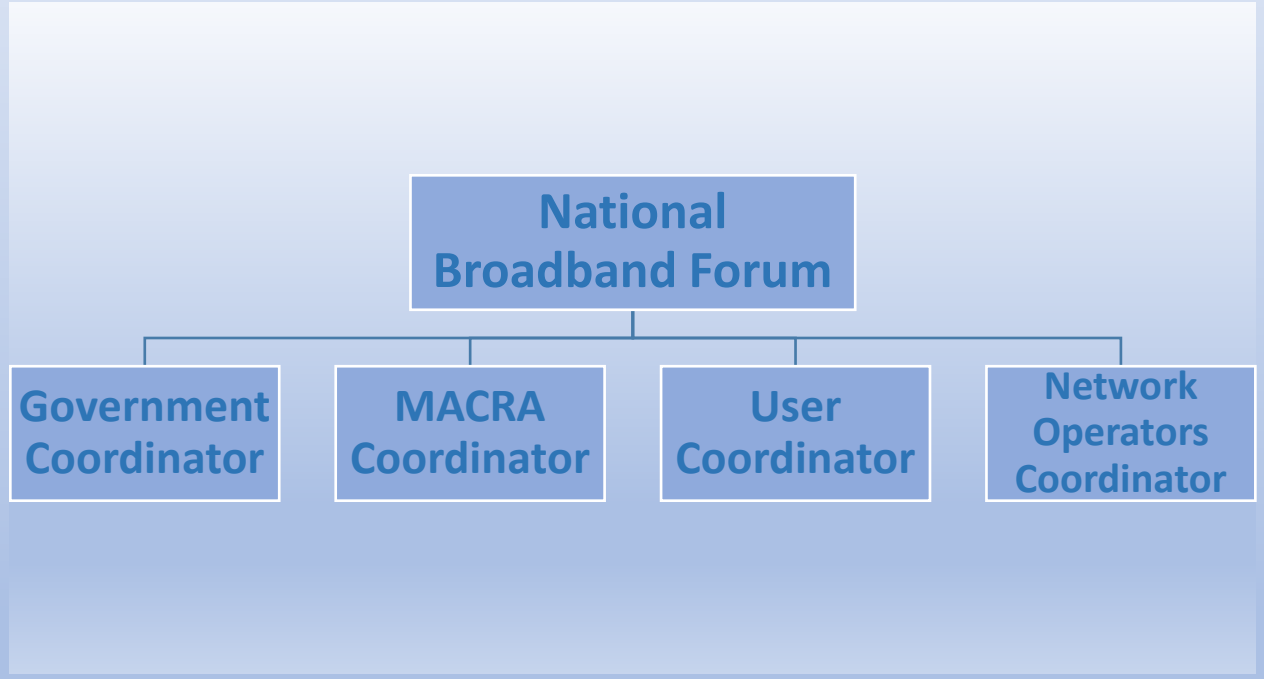
Opportunities (1)

- Mandate infrastructure sharing especially towers in rural areas and new ducts
- Widespread deployment of connectivity specifically aimed at providing Broadband to “shared access” centres/locations
- The MAREN of the higher education network to give more POPs for colleges, education institutions
- Increase power availability in rural areas including using renewable energy
- Develop strategic plan for USF including prioritizations on principles of highest increase in access connectivity at least cost

Threats

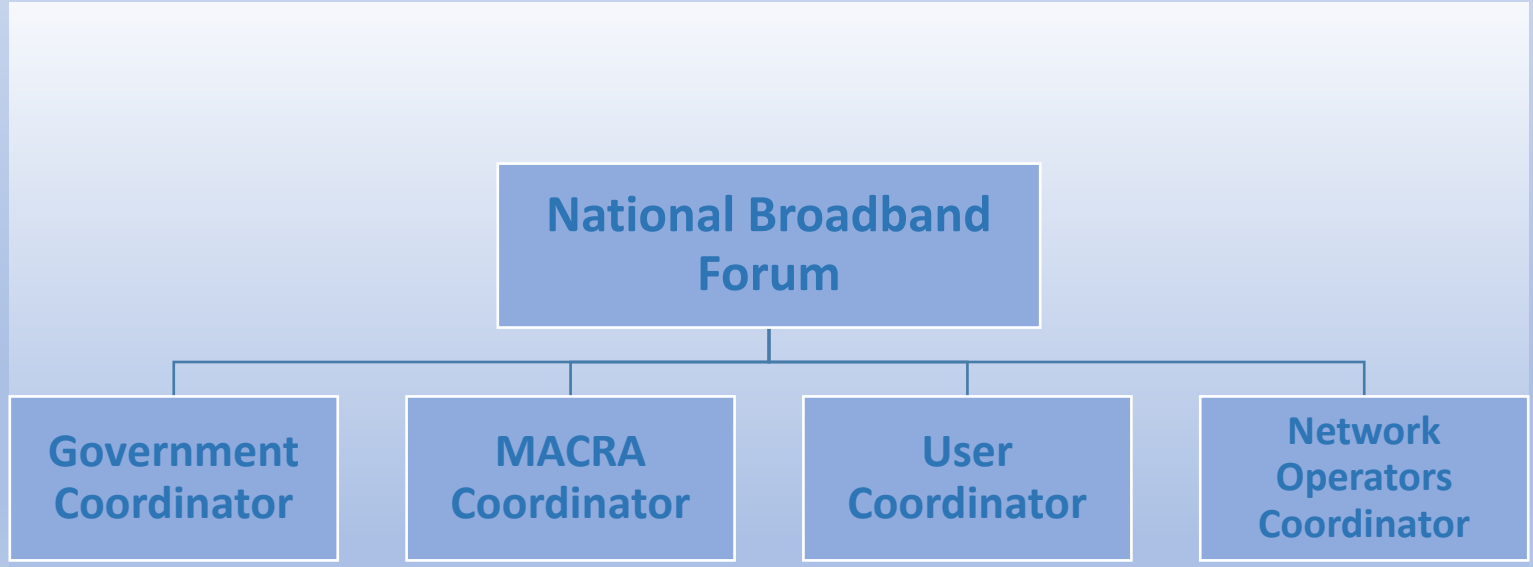
- Difficulty in serving the rural population due to high cost of service access to low-density, poor populations
- No clear prospect for GDP growth supporting significant investment
- Failure of widespread deployment of technologies e.g. fixed wireless access
- Impact of a wider digital divide
- Difficulty in management of and lack of cooperation between stakeholders
- Unstable exchange rates and lack of access to investment finance
- Ongoing dominance of the 2 mobile operators

WAY FORWARD – Institutional Arrangements



National Broadband Forum

- Aimed at ensuring close cooperation among the key stakeholders on Broadband Strategy Implementation
- Ensure that the Roll Out Plan is aligned to the broadband roadmap to ensure issues are identified at an early stage and addressed appropriately.



Comments and Questions