



Broadband for an inclusive digital society

A presentation to CSTD 2012-2013 Inter-Sessional Panel



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I. INTRODUCTION



Information and Communication Technologies are now at the fore front of the world development and many countries have embraced ICT as a medium for development. Rwanda has been named East Africa's number one ICT nation by the United Nations Conference on Trade and Development (UNCTAD).

This presentation outlines ICT-led progress but also explains the cost of a digital divide being inward or outward. It provides some tips on how to bridge the gaps and conclude with some recommendations.



2. BROADBAND AND DEVELOPMENT



Rwanda's Vision is to transform the country into a knowledge based middle income economy by 2020. To achieve this vision, improvements in the country's business environment, competitiveness reforms as well as ICT deployment were put forward. A number of ICT initiatives have significantly impacted Rwandan lives.

2.1. Broadband ICT and Health

E-health solutions in Rwanda such as Onehealth, HMIS, DSST, etc) have led to incredible increase in both quality and access to healthcare.

These tools improved interventions, monitoring and reporting therefore impacting policy formation and operational planning. Rwanda is now one of the few countries in Africa that use efficiently ICT and stands a chance of reaching the MDG targets according WHO.



**Improved
Healthcare
Interventions**
(reporting & planning)

**Improved
Healthcare
Systems**

**Improved
health
Status**

Applications
&
Tools
Infrastructure,

ICT use in Health



ICT Broadband and Health (next)

Other initiatives include :

- ▶ **Community based IS** which provides Mobile phones to support CBHW to support maternal health & report on mortality ;
- ▶ **Facility based ICT systems** (HMS, Telemedicine, etc.) and improve hospitals efficiency;
- ▶ **Tracknet & Trackplus:** Databases collecting national data on various diseases;
- ▶ **NHA:** Which captures all expenditures in the health sector and **E-procurement** which alerts decision makers on the cellphones when there is a stock out anywhere.





2. 2. Broadband ICT and Economic development



There are a number of roles played by ICT in development of Rwanda as a knowledge based economy:

- ▶ ICT is a source of knowledge in schools, enabling access to cheap, fast and updated education; OLPC (150k laptops to PE, 500k in 2017)
- ▶ ICT is a great medium of improving the business environment through various tools (ATMs, IPPS, IFMS and m-Banking).
- ▶ ICT is a fast and efficient mode of Information dissemination
- ▶ ICT integrated Rwanda into the global economy.
- ▶ ICT is a tool used for agriculture development (e-soko, weather)



2.3. Broadband ICT and government efficiency



- ▶ A number of E-solutions increases government efficiency; stimulate good governance and promote accountability and transparency. A good example could be that of E-procurement. The traditional procurement process involved steps associated with a number of inefficiencies and corruption risks.
- ▶ Another important tool is social media, where people access decision makers at the finger of their tips and participate in policy formation an important part of democracy. E.g. twitter, Ministers' Mondays, etc.



3. BROADBAND DIVIDE



3.1. Availability

A 2,500 km Fiber Optic backbone connecting all 30 districts of the country and 9 major border points; plus a Kigali metropolitan network connecting 3 districts and government offices, is already done, however the need to extend this network to all corners of the country is more apparent. The current networks (National backbone, Kigali metropolitan network and the Wibro) are located in Kigali.

The National Backbone is an IP/MPLS network, with a 10Gbps capacity and 1Gbps (upgradable) for each district. Currently, Rwanda has acquired additional international capacity equivalent to 2.5 GB connecting to the international routes.

Ensuring access by all citizens has been a mainstay of Rwanda's ICT policy, although there is still a substantial rural-urban gap, with the majority of mobile phones, landlines and internet access concentrated in the capital Kigali.



3.2. Affordability

The greatest challenges that most developing countries are facing regarding bridging the digital gap is the affordability. Most ICT tools especially equipment, are expensive for common people.

Affordability	Rwanda	China
Fixed-telephone sub-basket (\$ a month)	13.2	4.7
Mobile-cellular sub-basket (\$ a month)	13.9	6.0
Fixed-broadband sub-basket (\$ a month)	86.9	17.8

Source: The Little Data Book on Information and Communication Technology 2012(World Bank)

Though efforts are made to reduce the gap. Few Rwandans can afford ICT services to though recent efforts brought down the price by 8times 4 internet, 2 times mobile, etc.



3.3. Quality of access & use of broadband

The VLP will ensure that all players in the market have equal nondiscriminatory access to wholesale international connectivity. But this access should be transmitted to end users including in rural areas.



The next step in implementing the broadband policy for Rwanda is to expand access and reach to each of the 416 administrative sectors in Rwanda as well as government institutions, schools, hospitals, churches, commercial institutions and residential areas with the same quality connection.



4. BRIDGING THE DIGITAL DIVIDE



The Broadband Commission has set four clear, new targets for making broadband policy universal and for boosting affordability and broadband uptake. Targets 1 and 2 cover the policy options while targets 3 & 4 cover the operational level.

4.1. At policy level

Target 1: *Making broadband policy universal.* Promoting universal access to computer in schools and out of schools is planned in NICI III (2010-2015), correcting market failures/distortions measures have been adopted.

Target 2: *Making broadband affordable.* Public private dialogue is on-going and innovative financing schemes under studies to expand ICT. 100% coverage policy, etc.

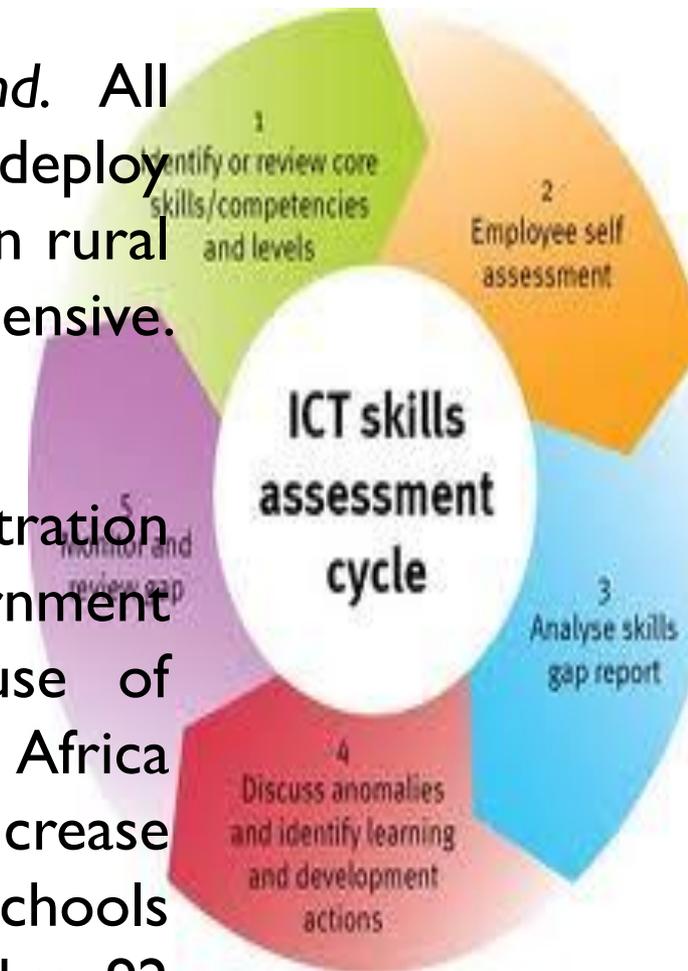


4. BRIDGING THE DIGITAL DIVIDE

4.2. At operational level

Target 3: *Connecting homes to broadband.* All districts connected and we are trying to deploy wireless technology using electrical towers in rural areas since optical fiber option is very expensive. E.g. RURA fines to telecoms.

Target 4: *Getting people online.* Internet penetration is being improved, online services by government and private sector has increased the use of internet. Rwanda is now ranked number 1 in Africa in internet speed, and post a double digit increase each time. ICT buses on the road each day, schools lab opened to public, public access kiosks; 92 telecenters ; e-gov, etc.





5. CONCLUSION

ICT Broadband is a major tool for an inclusive growth and reduction of inequalities among society. It does improve the access and quality to healthcare even in remote areas, it is an incredible medium providing updated, cheap and fast knowledge/ information at all levels of the society therefore improving government efficiency and transparency.

Despite recognized values and benefits of broadband ICT, countries and individuals suffer from its availability, affordability and; quality and use of broadband. The access to broadband is very expensive to developing countries and especially landlocked ones, its not only expensive to countries but also to poor people who hardly benefits from the even little existing infrastructures and tools.

There is therefore, a need to bridge the gaps both a international levels but also at countries levels. For this to happen, actions must me taken both at policy level and implementation level to leverage on existing pool of tools, technology and infrastructure for an inclusive growth.



Thank you

Merci

Gracias

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