Role of Information and Communication Technologies (ICT) in Enhancing the Livelihood of the Rural Poor

Views Synthesised by Abdallah K. Hassan[1]

INTRODUCTION

Building a knowledge-based society is among the sub-pillars of the Tanzania Vision 2025, which "envisages [Tanzania as] developing into [an] information and knowledge-based society with a vision to have a universally accessible broadband infrastructure and ICT as well as expertise that enhance sustainable socio-economic development and accelerated poverty reduction nationally; and to become the ICT development hub regionally" (TDV 2025: 2006). Indeed the African Union and the East African Community also recognizes the importance of ICT in development.

This policy brief is based on the opinions provided by the members of public who participated in the Tanzania Knowledge Network (TAKNET) forum, which probed the views of the people on the "Role of Information and Communication Technologies (ICT) in Enhancing the Livelihood of the Rural Poor"[2] . The online discussion was conducted for a period of three months from January to April 2009, and attracted more than 20 contributors[3], some of whom contributed more than twice. Judging from their names none of the twenty contributors was a female.

In the context of this brief, ICT refers to an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them.

Official statistics indicate positive trends in the ICT sector in the country. By the end of 2008, there were more than 13,000,000 mobile phones subscribers and 123,000 fixed lines in the country. This is an improvement compared to 3,118,157 subscribers (both mobile and fixed) in the year 2005. The number of Application service operators (Internet and data) increased from 11 in 2000 to 60 operators in 2008. Voice telecommunication density is estimated at 25 lines per 100 people in 2008 compared with just 1 line per 100 people in 2000 and 3 lines per 100 people in 2003 (TCRA 2008).

The cost of calling is still prohibitive—although it has gone to an average of USD 0.27 per minute (USD 0.22 off peak), from around USD 0.44 in the year 2000. This is of course set to drastically change from August 2009 with the completion of laying the fibre optic trunk by SEACOM, which is connecting South Africa, East Africa, India and Europe. However an import duty of 25 per cent, a standard 20 per cent value added tax and a 10 per cent excise tax on all ICT equipment result into higher consumer prices of the equipment. A 10 per cent excise duty and 20 per cent value added taxes are also charged on airtime and all applications services. This makes mobile phones expensive for low-income people thus encouraging the widening of the digital divide.

In 2006 the government enacted a Universal Communications Access Act which provides for the creation of a special fund with contributions from the government, development partners and private sector stakeholders that would be used to assist universal access providers to extend services to underserved localities.

While it is understood that the Government has already in place a policy on ICT there is nevertheless, appreciation of the fact that much remains to be achieved. The aim of the dialogue, therefore, was to obtain views and opinions on the subject, from the people who contributed freely and interactively

under the moderation of experts from ESRF. This brief has been prepared using those views and opinions and therefore it is our hope that the brief adequately reflects the popular views. That it is a general reflection of what people think, which might differ from what some perspectives suggest as represented by scholarly and common literature on the subject. It is our expectation that these results will help one understand people's perception of the ICT's role in enhancing the livelihood of the rural poor and therefore make a positive contribution to results from other conversional surveys and studies.

2. OBJECTIVE OF THE DISCUSSION

The objective of this discussion topic was to provide the public with a platform to express their opinions and experiences on the roles ICT is playing and can potentially play in the betterment of the livelihoods of the rural poor. But most importantly the debate was expected to generate some policy recommendations on what should be done to enable the rural poor to fully harness the opportunities that come with the development of ICT.

3. ICT AND THE RURAL POOR

From the discussions there was a general consensus that Information and Communication Technologies (ICT) has the potential to reduce poverty and improve rural livelihoods through several channels or fronts: (i) via improved market information access for better decision making on enterprise choices, combinations and commodity marketing and helping to mitigate negative impacts of the weather (ii) creating awareness and increasing peoples general knowledge of the people regarding production technologies as well as their access to micro-finance information and packages and family health matters (iii) raising education levels on general and specific life skills; (iv) investments in rural infrastructure, especially electricity and roads; (v) make possible accessing e-government, e-commerce and e-marketing facilities (vi) enable the expansion of e-learning or distant learning in primary and secondary schools and for individuals pursuing post-secondary level of qualification.

The debate also reveals some possible shortcomings and threats associated with the advent of the ICT revolution. The positive and negative considerations of ICT are all synthesized by the moderators to propose some policy and strategy recommendations for consideration by the Government of Tanzania.

3.1 Role of ICT on Production and Marketing

ICT is already helping and has some unlimited potentials to help improve the livelihoods of the rural communities and can increase the income and in the long run help in the fights against poverty. Contributors think that rural dwellers need information about prices, data on crops, weather conditions, credit facilities, market opportunities etc. ICT can make availability of all those services easily available and stimulate poor people's entrepreneurship by better connecting them to markets, health, and education.

3.2 ICT and E-government and E-commerce

Rural-based ICT can play a role in bridging the digital divide by empowering the rural poor to access critical information relating to government services and the availability of micro-finance. Thus it can provide the much needed government support to rural development by reducing the costs of extension services delivery and also promoting improved production through access to low cost credit. This would close the gap between the rural and urban population access to microfinance.

3.3 Challenges as per contributors' views

Despite the benefits mentioned above, there were several challenges mentioned by contributors. They included: contamination of Tanzanian culture and traditions with undesirable foreign values. Some of the contributors believed that ICT had already brought negative influences through films and websites hosting controversial and distorted cultural values, crime and violent scenes, which our youth easily access and see in public internet joints and street vended DVDs and VCDs . They also mentioned the misuse of mobile phones (unnecessary use) as among the things that have contributed to impoverishment of the rural poor.

On the matter of unnecessary usage of mobile phones, one contributor, Festo Maro, lamented "No wonder some mobile owners can starve at the expense of airtime… if [it] is [meant] to improve the livelihood through ICT, there is need to examine its costs and benefits in holistic manner".

3.4 ICT enabling factors

In appreciation that ICT in general has a positive role to play in the development of the rural sector, dialogue contributors identified several enabling factors (drivers) that need to be addressed in order for ICT to develop in the rural areas and improve the livelihood of people. These include capacity building, infrastructure development, conducive policies, and development of supporting sectors such as agriculture and informal business as we revisit below:

3.4.1 Capacity building

The ability of the rural poor to harness fully the opportunities that come with the development of ICTs, depends on the level of their understanding of the existence of ICT and what can be done with its applications in problem solving, enhancing technological development in areas of their concern especially in agriculture and associated agro business.

Contributors were of the opinion that the rural poor have to be educated about the Information Communication and Technology (ICT) in general, particularly emphasizing on the applications that are relevant to rural settings. However educating the rural poor can be a challenging endeavour; the need for hardware and human resources for the teaching, the need to decide which are the best teaching methods/approaches to be applied, where in rural areas the classes will have to be held, and who is to bear the cost?

Fredrick Mashingia underscored the importance of having a critical mass of rural-based IT technicians, facilitators and operators when he noted that "If we can formulate ICT policy in our education systems especially in lower classes then we should have experts in the field to train in the community"

AAll in all, it is a must that some form of education has to be given in order to put the rural poor in a position to deploy ICT applications if they have to harness the opportunities it provides. The complexity of this exercise will depend on the level of the formal education they already have and availability of necessary equipments and infrastructure.

3.4.2   Infrastructure
Some form of ICT is already available to the rural poor and they are using it. Gadgets such as cellphones, TVs, radios, videos, etc. are available. However, computers and 3G phones, the hub on which ICT applications revolves are yet to be in their domain fort he simple reason of the low level of ICT application in rural areas and the problem of the source of electric power. Electrifying the rural areas is of paramount importance for meaningful economic development. But it is very expensive to install and time consuming to do so. We have in place the Rural Energy Fund which will contribute to the electrification of rural areas, but it will take many years before even 50% of the population could be connected to a power network. Fortunately ICT can still make some impact on the rural dwellers lives by powering ICT facilities through use of solar and wind energy the technology which is easily affordable.

Having power in place, ICT information can be transmitted via radio signals, using for instance mobile phone networks, Wi-Fi, WiMax and Satellite communications and with this approach the possibility to reach even very remote areas of Tanzania is quite feasible.

There are several institutions in the country that provide internet services using solar panels in rural areas for example "Juasun in Musoma and a few teacher colleges, which are not on the power grid"[4] . However the Rural Energy Fund and investments on

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renewable sources of energy, needs further analysis and synthesis in terms of strategies and fundable action plans.

"The number of cellphones connected in Tanzania is more than 10M, which is approximately 25% of the population of Tanzania. Surprisingly, with GPRS, 3G, CDMA and 3.5 G and other wireless mobile phone technologies, all active subscribers are automatically connected to the internet. So in other words we have more than 10million Tanzanians connected to the internet. What have we done to tap that potential? Do we have appropriate content? Have we tried to support those in the rural areas to harness mobile phone technology to the fullest?" –citations by dialogue participant, Al-Amin Yusuph.

3.4.3   Policies
Legal and regulatory frameworks were also mentioned as among the prerequisite if the ICT has to develop and impact positively on rural peoples lives. Most of our policies were drafted years ago, whereas the ICT sector, driven by developments in the chip and storage industry doubles its growth every two years. Our policies are therefore years behind the ICT developments.

However, some contributors were concerned with policy process and whether it is participatory enough by involving all interested parties including rural poor. There was worry by contributors such as Al-Amin Yusuph that "people who actually hold the pens and papers to draft policies are most of the time those who are shaped by the urban mind, so they see things from the urban perspective". Such contributors suggested that a careful re-examination of the processes be made with a view to involving those living in the rural areas from consultation stages to the actual drafting of policies. They also propose to the Government to insert in the policies clauses that would apply pressure to investors to invest in the rural areas.

3.4.4   ICT Supporting sectors
For the ICT to impact on the livelihood of the rural poor, contributors thought that investment in rural infrastructure (roads, electricity, water and telecommunications), education, agriculture, informal business and other sectors that have direct impact on the development of the majority of the people are very important. This is true because ICT is only an enabler and not an end in itself.

"For our poor peasants to make a mile forward in terms of economic development strategic investment in key employing sector like agriculture have to be developed first and then the communication industry open up the avenues for marketing and distribution of their products" Says Jason Nkyabonaki

Contributors emphasised that due to improved opportunities for non-farm employment, and increased rural wages, investment in education, agricultural research and rural livelihoods development can achieve more impact. It is in those areas that ICTs will have a major role to play.

4   CONCLUSION

The importance of Information and Communication Technology (ICT) to the national development does not need to be overemphasized. ICT impacts cut across all sectors of the entire economy. ICT services improve information exchange among the people, facilitate the fights against poverty and thus enhance economic growth – factors which are in line with the goals and objectives outlined in the National Development vision 2025 and other sectoral policies.

We should have a common goal which is to see ICT progress transformed into benefits for Tanzanian's citizens (whose majority live in rural areas), in businesses, in industries and in government.

5   POLICY RECOMMENDATIONS

A number of issues were raised in the discussions, which suggests for some specific interventions by the Government and other relevant stakeholders as per the following main recommendations:

1. Despite the commendable recognition of the benefits of ICT application by the Government; and the Government's efforts to come with plans to facilitate the high and middle income groups to acquire ICT, there is an urgent need to widely mainstream ICT and IT applications in all government endevours as a demonstration effect to her citizens.

2. If the rural poor have to be trained in ICT applications, the Government has to start a massive campaign for training the rural population in ICT applications. The training could be both formal and informal through the Government's own resources, or by the Government mobilizing NGOs and well wishers, religious institutions and well to do individuals.

3. ICT-based information centers should be established in rural areas to facilitate regular consultation between the rural poor and experts manning the centers for acquisition and dissemination of market data on prices and availability of inputs for the benefit of the rural poor.

4. Policy makers should look into the possibility of reviewing laws and legislations with regards to supporting ICT applications.

5. The government should invest in ICT and appropriate ICT enabling infrastructural facilities such as wind and solar power generation in rural areas to make services available and affordable. It should also take deliberate initiatives to encourage investment in ICT in the rural areas.

6. It is further recommended that effort be put in the development of local contents to increase the number of ICT users especially in rural areas; including mainstreaming ICT from pre-school, primary, secondary school to higher levels.

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