

A Writing Contest

On

ICTs and Agriculture

A Case Of Zambia

Title: The Complementary Role Of ICTs In Improving Rural Livelihoods through Agriculture

Submitted

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1.0 The Complimentary Role Of ICTs in improving rural Livelihoods through Agriculture

1.1 Background Information On Zambia

Zambia can be best described as a youthful nation with about 45.2% of its population under the age of 15 while those between 15 to 24 years of age constitute 22.3% of the 10.3million people living in Zambia. All in all young people constitute approximately 67.5% of the total population¹. Therefore this paper will mainly focus on youths and how agriculture can improve their livelihoods, complimented by a greater role of ICTs in enhancing development. Over the years Zambia has undergone serious economic transformation including structural adjustment (leading to liberalized markets & privatization of public institutions). This has seen Zambia move from a quasi-socialist economy to a “capitalist” economy. One of the biggest challenges that youth are facing as a result of this transformation is unemployment (about 67 percent of the unemployed are youth) coupled with the high HIV/AIDS infection rates and a deteriorating education system. Majority of people in urban areas constitute youth, who are migrating from rural areas to urban cities in search for employment and better life. Unfortunately, the cities are not growing and developing at a rate to provide employment and better life aspired for by youths. Results are youths getting frustrated and engaging in illegal activities such as drug abuse, prostitution and other petty crimes, while others are thrown on the streets, creating a serious social problem. In short, in the absence of means of earning a living, the poverty levels in both rural and urban areas have soared. However there is still hope to ameliorate the situation. Zambia classified as a third world country could be disadvantaged in some way but it is one of the richest countries in the world in terms natural resource base. Zambia has favorable climatic conditions and vast portions of land most of it ideal for arable agriculture. By engaging young people in sustainable agriculture and other income generating activities the present picture of unemployment and misery among young people in rural areas can be corrected. Therefore contributing to poverty reduction in Zambia.

2.0 Agriculture In Zambia

Agriculture in Zambia drives the wheels of rural economy and to some extent even the urban economy as the urban dwellers depend on rural farmers for food. Rural farmers whom the majority are small-scale farmers contribute about 80% to the nation’s food basket. However these farmers are faced with constrained market access, which includes physical access to markets and lack of information. Small-scale farmers usually have little ability to effectively or favorably compete in agriculture input and output due mainly to insufficient information about the markets, lack of business skills & high transaction costs. It is difficult for the farmers to market and achieve commodity exchanges if communication is encumbered. Limited access to market due to lack of

¹ The latest Zambia population census

information on available market is retarding development in rural areas. Other impending factors are barriers created by the international communities. For example the United States of America provide subsidies to its farmers, by doing so the production costs are low, allowing the farmers sell at a competitive price. Therefore it becomes very difficult for small-scale farmers in developing countries to penetrate the international markets. In short the big markets determines the price without considering the high production costs incurred by the less advantaged subsistence farmers in developing countries.

3.0 ICTs² in Zambia

Zambia has always lagged behind in terms of technological advancement. Communication technologies such as Internet and mobile communications are just slightly a decade old in Zambia. For a long time only accessible to those living along the line of rail and the latter now available in selected outlying areas of Zambia. Zambia has five Internet Service Providers (ISP) namely; Zamnet, Coppernet, Zamtel, Microlink and UUNet. Zamnet, Coppernet and Zamtel are large providers of Internet services with about 3500, 1800 and 1500 respectively. Whilst Microlink and UUNet have subscribers in hundreds. It is expensive for those living in rural areas to connect to Internet for they are required to use a dial up system, which is equivalent to a trunk call. The rate differentials the ISPs charge is between US\$23 and US\$30 per month in Zambia, whilst Internet cafés charge from approximately US\$1 for 15 minutes for use of Internet or sending emails. Altogether there are about 40,000 Internet users and only 7,500 subscribers all using Internet for commercial, academic, research, personal emails etc³. On the other hand Zambia for a long time hasn't had an ICT policy in place to guide the nation. However to address this concern an ICT policy is currently undergoing development (currently in draft form). Information technology devices such as computers and mobile phones are so expensive for an average Zambian. However the government's decision to cut tax on computers to 5% is going to enable many Zambians own computers. While the advantaged few are enjoying the fruits of technological advancement and globalization process, the rural majority continues to be marginalized ("the digital divide" between the developed and developing nations is widening far faster than globalization process). Most of the parts of Zambia are either cut off from television or experience poor reception, hence denied access to public information critical to decision making.

4.0 Rural Youth In Agriculture In Quest For Improved Livelihoods- The Approach

Zambia like many other developing countries is working towards reducing poverty amongst its citizens by implementing strategies highlighted in the Poverty Reduction

² ICTs are those technologies that can be used to interlink information technology devices such as personal computers with communication technologies such as telephones and their telecommunication networks. The PC and laptop with e-mail and Internet provides the best example. Source: ICTs and Rural Development: Review of the Literature, Current Interventions and Opportunities for Action- Working Paper (2002) by Robert Chapman and Tom Slaymaker.

³ The e-Brain Forum, Issue No. 9, January 2004, Lusaka, Zambia.

Strategy Paper (PRSP). Therefore the main objective of this idea is to contribute towards poverty reduction in Zambia. The immediate objectives being improved livelihoods and increased income (through sale of farm produce) among the rural population through high agricultural productivity, agribusiness, on farm employment. However improved access to markets (Box 1) is crucial, hence the need of ICTs.

Box 1: Development and information needs

“Recent development thinking has been based on the assumption that markets work well enough to ensure development and alleviate poverty. Our growing understanding of information constraints suggests that markets alone are often inadequate; societies also require policies and institutions to facilitate the acquisition, adaptation, and dissemination of knowledge, and to mitigate information failures, especially as they affect the poor”.

Source: Robert Chapman and Tom Slaymaker

In Zambia for a long time now farming has never been considered as a business but growing just enough to feed the family. On the other hand young people benefit very little from farming activities as most of them work on their parents or guardians farms where they are not remunerated for their labour. To empower young people economically there is need to support young people in agriculture through capacity building, easy access to financial services (such as loans) to enable them procure farming inputs such as seed, draft power, fertilizer etc. But the aforementioned support is incomplete without modalities put in place to facilitate easy communication and market accessibility among young farmers, hence the need of ICTs. Rural youth also need entrepreneurship skills to enable them run their own enterprises in areas such as agro-processing. For example instead of selling unprocessed groundnuts they could further add value to it by further processing the nuts into peanut butter and cooking oil. This again will be incomplete without proper communication tools to facilitate marketing of the finished products. ICTs would therefore play a very critical and complimentary role in improving the livelihoods of rural youth engaged in agriculture and agribusiness.

4.1 ICTs -its role in improving rural youth livelihoods

ICTs are a critical tool in rural development. The strategic use of ICTs for poverty reduction will depend on the appropriate economic undertaking, for social and human development to occur, hence the great emphasis on agriculture in this paper. The rural poor depend primarily on agriculture and related activities for their livelihood. Agriculture does not only provide the source of nutrition but the bulk of their income⁴. Improved systems for the management and communication of agricultural information can help poor farmers make informed choices about the opportunities and constraints associated with agricultural development strategies⁵. While the assertion that information is an important focus for the future rural development strategies is not particularly

⁴ IFAD (2001) Rural Poverty Report 2001: The Challenge of Ending Rural Poverty, Oxford: Oxford University Press.

⁵ Communication for Development Report by FAO (1998)

contentious, defining the role that information should play is somewhat more challenging. Therefore the presence of ICTs in rural areas will therefore assist rural youth access, store and share information with other people using multiple devices and multiple media for purpose of

- ✓ Accessing information on potential buyers for their farm produce: ICTs could link farmer groups or agricultural cooperatives to larger markets and it would assist the rural youth in agriculture to standardise their prices. Therefore the potential of using ICTs to promote rural development through agriculture lies largely in increasing market efficiency through addressing information gaps and blockages. Access to markets and market information will help to improve choices for the sale goods both on local and international markets according to enhanced information on prices, comparative supply and demand for products. In the longer-term new markets, techniques and processes for production, processing and marketing of products, both farm and non-farm can be explored.⁶
- ✓ Accessing information on economic trends in terms of prices and demand for a particular farm produce. Now that markets are liberalized in Zambia this will save the farmers from being exploited by unscrupulous dealers.
- ✓ Accessing information on weather projections- this will assist the farmers plan well for the season, taking in consideration external factors such as weather conditions. The appropriate knowledge on weather conditions for a particular season will enable them know exactly the suitable seed to plant.
- ✓ Accessing information on farm implements (of which they can also order online)
- ✓ Accessing information on how to grow certain crops and post germination management. This will compliment the current agricultural extension systems. How there is need for easy to use and more interactive programmes.
- ✓ Accessing information on animal husbandry and diseases highly prevalent in livestock. The ICTs will link the farmers to service providers such as veterinary, drug suppliers and NGOs.
- ✓ Accessing information on best farming practices and training in agriculture and entrepreneurship (complimenting the current extension system). ICTs will also enable young people study online without interfering their farming and business activities)

ICTs will improve and enhance social networking at community, regional and national levels, bringing about reduction in the cost and time taken traveling pursuing markets and potential buyers for their farm produce. Reduction in spending definitely will have a positive impact on household livelihoods since their savings will improve.

Despite the challenges identified in section 3.0 such as cost, access to information in rural areas through the use of ICTs can still be enhanced and affordable through the involvement of the rural communities themselves. One classical example is Swaminathan's e-villages in India where villages have information centres run by group

⁶ Chapman, R., Slaymaker, T and Young, J., The role of information in support of sustainable Livelihoods. Report prepared for FAO, Rome.

volunteers. The centres provide information services and run training courses to the villagers. In this case farmers are expected to contribute (pool their resources together) to facilitate smooth running of the information centres. It is even much cheaper and affordable if more villages are connected and contribute towards the cost of running the information hub. Since the farmers themselves know their information needs the e-village concept is ideal as it enables the villagers' access to information that is useful to their daily lives and discover opportunities for improving their income generation.

5.0 Conclusion

In this age of technology it is very difficult to compete in any form of business undertaking if one is not up to date with technological advancement. For example today to do business effectively one needs an email address and good access to Internet, phone etc. Therefore the need for ICTs in improving the livelihoods of rural population cannot be over emphasized. Engagement of the rural young people in agriculture with full utilization of ICTs will improve their livelihoods eventually reducing poverty levels. Give the above scenario in 4.1 ICTs will assist the rural based small scale farmers and entrepreneurs to enter the mainstream economy (access to the global market) and become sustainable exporters contributing to economic growth. With the envisaged high productivity and increased income more jobs will be created in the rural areas through on farm employment and rural entrepreneurship. All in all ICTs will ensure that imbalances in terms of market accessibility and information are addressed.

However the government should play its part in terms of good policies, by ensuring that ICTs are accessible and affordable in rural areas so as to meet their information needs in agriculture and agribusiness. The ICTs will reduce the information gap that currently lies between the farmers and the potential markets. There is therefore need to assist build local capacity among farmers to support Internet connectivity.

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