

Information and Communication Technologies and Poverty Reduction in Developing Countries

The Case of Sub Saharan Africa countries

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ABSTRACT

There is a growing interest in using Information and Communication Technologies (ICTs) to support poverty reduction efforts and strategies in the framework of the Millennium Development Goals (MDGs). These interest ended up revealing how much the Poverty Reduction Strategy Papers (PRSPs) of many african nations have underestimated the importance of ICTs as a development tool. The fact that so little was mentionned about the use of ICTs for poverty alleviation and creation of employment highlighted the confusion, and uncertainty of decision makers. At the country level, ICT is still to be effectively integrated into national poverty alleviation and development strategies. The question then is how ICTs can help achieve those objectives. How can ICTs be used as tools to fight against poverty? Poverty is widely recognized as multidimensional, encompassing food security, health, education, rights, security and dignity, amongst others as stressed by Bachelor & al in a model showing the intricate linkages between ICTs and most PRSP goals.

The link between ICTs and poverty reduction strategy is therefore not that obvious. Although, researchers and development partners involved in poverty alleviation recognize more easily the linkage between ICT and poverty reduction strategies. In any case, it is a prerequisite to have a conducive environment and country readiness for ICTs implementation.

Unfortunately, in many Sub-Saharan Africa countries, there is not yet a clear and effective policy and strategy for the use of ICT.

Keywords : Poverty reduction, mainstreaming ICT, digital divide, development strategies

1. INTRODUCTION

“Recent developments in the fields of communications and information technology are indeed revolutionary in nature. Information and knowledge are expanding in quantity and accessibility. In many fields future decision-makers will be presented with unprecedented new tools for development. In such fields as agriculture, health, education, human resources and environmental management, or transport and business development, the consequences could be really quite revolutionary. Communications and information technology have enormous potential, especially for developing countries, and in furthering sustainable development.”

UN Secretary-General Kofi Annan (1997:1)

These words of United Nations Secretary-General Kofi Annan underline in no uncertain terms the critical role that ICTs can play in furthering and enhancing sustainable development. ICTs are increasingly shaping the maner in which, people the world

over communicate, do business or even perceive things. It is therefore an absolute necessity for developing countries with ambition to leap from their development. The Millennium Development Goals (MDGs) have become a frame of reference for just about all organizations working in development area. The question then is how ICTs can help achieve those objectives. How can ICTs be used as tools to fight against poverty? Poverty is widely recognized as multidimensional, encompassing food security, health, education, rights, security and dignity, amongst others as stressed by Bachelor & al. [1]. It's therefore anticipated that to create wealth, ICTs could help to empower and enable the poor to actively participate in economic activity, and benefit from overall income increase.

It is believed that the developing countries can derive the greatest benefits from the use of ICTs. New information and communications infrastructure and services are believed to provide developing countries with unprecedented opportunities to overcome their structural handicaps as well as their weaknesses arising from the lack of social and economic infrastructure, to leapfrog into the information age and society alongside their developed counterparts.

Though the purpose of this paper is not to conduct a macro-economic analysis of poverty per se, it may be relevant to question about the potential correlation between the current ICT-impacted transformation of the economy of the developed and industrialized countries and the worsening of poverty [2] in Sub Saharan Africa Countries (SSA).

In the following, the paper provides a quick overview of the Sub Saharan context and an assesment of ICT measures and actions aiming at taking full benefit of the ICT-potential to support growth and competitiveness. The paper pursues with an overview of the current situation and the associated opportunities, constraints and challenges before attempting to promote the potential of ICT in the PRSPs and MDGs leading to a sustained development-oriented growth conducive to poverty eradication.

2. DEVELOPMENT CONTEXT OF SUB-SAHARAN AFRICA COUNTRIES

Africa is at the heart of human development crisis in the world. In fact, as mentioned in the New Partnership for Africa's Development (NEPAD), 340 million people in Africa, or half of the population, live with less than US\$1 per day. The mortality rate of children under 5 years of age is 140 per 1000, and life expectancy at birth is only 54 years. Only 58 per cent of the population have access to safe water. The rate of illiteracy for people over 15 is 1 per cent. There are only 18 mainline

telephones per 1000 people in Africa, compared with 146 for the world as whole and 567 for high income countries.

In this context, Sub-Saharan African has the highest proportion of people living in poverty, with nearly half of its population below international poverty line of \$1 a day. This means that some 300 million people face the daily struggle of surviving on less than that income. Since the 1990s, poverty reduction in this region was hindered by weak economic performance, political turmoil and civil strife, the vagarnes of weather, and highly skewed income distribution.

3. ICT CONTEXT OF SUB-SAHARAN AFRICA COUNTRIES

As mentioned in NEPAD [4], poor ICTs infrastructure in Africa combined with weak policy regulatory frameworks and limited human resources, has resulted in inadequate access to affordable telephones, broadcasting computers and the Internet. That means Sub-Saharan Africa experienced like many developing countries the so-called "digital divide" which is, in some part, a reflection of deeper social and economic inequalities both between and within countries. In fact, the average Organization for Economic Cooperation and Development (OECD) country is believed to have roughly 30 times the per capital income, on average, of a Sub-Saharan Africa Country, yet it has 40 times as many computers, 110 times as many mobile phones, and 1,600 times as many Internet hosts. ICT service costs, are also high in Sub-Saharan Africa. In this respect, Sub-Saharan African is not able to harness ICT as an important enabler of development, and this as a powerful tool of reducing monetary and human poverty [3].

In fact, ICT can spur growth in Sub-Saharan Africa improve market access, create jobs. ICT has an important role to play in halting and reversing the spread of HIV/AIDS, ranging from networks and applications aimed at enhancing access to knowledge in HIV/AIDS treatments, assisting in disease monitoring and management, drug distribution systems, training of care-givers, patient education and monitoring, knowledge networks of HIV/AIDS health practitioners, and organizations active in advocacy. ICT is being furthermore used in developing countries and communities to improve the functioning of health care clinics and to facilitate remote consultation, diagnosis and treatment to improve health care outcomes. ICT can also play a crucial role in the promotion of education, in particular in closing the gender gap in primary and secondary school education. For instance, ICT can be used to make available course materials to far flung places, provide opportunities for self learning and training and allow schools to provide education in a more flexible fashion and with a reduced

administration/service ratio so as to make available more resources for students per se.

4. ASSESMENT OF ICT MEASURES / ACTIONS IN SUB-SAHARAN AFRICA COUNTRIES

Recognizing the importance of the role of ICTs in development, African governments have adopted in 1996, the African Information Society Initiative (AISI), and requested UNECA to coordinate its implementation, and called upon the international community for support.

In the framework of the structural adjustment programs, most SSA have proceeded to the reform of their telecom sector in enacting new telecom law; the common reform-scheme advised by the World Bank has been to separate first the Postal services from the telecoms, and then to liberalize the data and other added value service market, particularly, Internet and the mobile. This resulted in the introduction of competitive operators in the market and in some cases, where it has been possible, to sell part of the shares of the incumbent operator to a foreign international telecom operator, called upon to be a "strategic partner" or "strategic investor".

Subsequently, they have established regulatory bodies whose objectives are supposedly to ensure fair competition between the different operators and to protect consumer's interest. In many cases, the regulatory body has the responsibility to implement the Universal access and Universal service policies, and in particular to pursue the development of rural telecommunications.

Following the launch of the AISI, supported by the international development partners (both multilateral and bilateral), numerous ICT-related projects, initiatives, and programmes worth multi-millions USD of investment have been developed in or towards Africa and aim at helping bridge the digital divide. It is impossible to list all of them. Almost all relevant issues are addressed and in a sampling from what comes in mind, they include:

- National Information and Communication Infrastructure plans (NICI-plans) ;
- Infrastructure deployment and community access with the implementation of Telecentres, Multipurpose Community Telecentres (MCTs), SchoolNets ;
- Capacity building, training and Human Resource Development ;
- Countless pilot projects completed or underway throughout the continent; besides the contribution of the Infodev programme and other interventions from a large number of

development aid programmes through bilateral cooperation;

- Crosscutting issues also addressed (gender, youth, ethics and disability, etc.).

In spite of the early warning drumbeat about the digital divide and the associated threats facing the LDCs, few Governments, if any, have given the ICTs sector its deserved rank in their PRSP-priorities. Though ICT-tools have been helpful in facilitating the process leading to the design of the PRSP (survey, data collection and processing, workshops, transferring files, word processing, etc.), the final document does not pay due consideration to the potential of these tools in the implementation strategy. More over, strategy to achieve development goals in selected priority sectors (water, health, governance, education, ...) does not consider ICT-assisted-activities as powerful and supplementary contributions[7].

Many Sub Saharan governments are willing to implement e.gouvernement and e.governance projects; others are also seeking to boost the development of telecentres to be operated by the local private sector; and some purportedly divert part of the HIPC-resources to support the roll out of telecentres to improve community access (e.g Cameroon, Madagascar).

New initiatives from the international development partners are casting stronger commitment to support the development of the ICT sector in Africa: (e.g: TICAD-IT from Japan, CATIA from DFID-UK, Connectivity for Africa from Canada, USAID-Leland dot-Gov) and other bilateral sources.

The upcoming event of the WSIS seems to have ringed a wake-up call for SSA countries to define national strategy aiming at accelerating their efficient inclusion in the information society. This is demonstrated by the increasing number of countries embarked in the process of designing their e-strategy or revisiting in case, their previous policy in order to link it with the PRSP and the MDGs as recommended by the UN ICT-taskforce at their 30-September meeting, in year 2002, echoing the appeal of the Secretary General himself: " There is a vast potential for investment growth in the developing countries. Information and communication technologies (ICT) can help us turn this potential into concrete opportunities that will help the poor work their way out of poverty, while at the same time benefiting the world community as a whole. ICT is not, of course, a magic formula that is going to solve all the problems. But it is a powerful tool for economic growth and poverty eradication".

The contribution of ICT to the PRSP can be viewed in the context of both the PRSP process as well as the content of the

poverty reduction strategy[6]. In this respect, ICT can be used to facilitate: (i) Information sharing and transparency of the process; (ii) consultations and public discussion of expert inputs on policy options and poverty reduction priorities along with real-time dialogues; (iii) simulation and impact analysis of policy options and consideration of alternative scenarios for decision-making; (iv) poverty mapping and tracking and linkages with monitoring of MDG achievements; (v) continuous feedback on progress and issues relating to implementation. However, only few PRSPs in Sub-Saharan Africa actually integrate ICT as an enabler into the context of the PRSP.

5. CONCLUSIONS

ICTs are just tools but powerful one. Their contributions to poverty reduction are multidimensional. They offer, inter alia, the following opportunities : (i) data analysis that can enhance agricultural planning; (ii) research dissemination and education; (iii) support for public health.

In order to deploy its full potential, there is an urgent need for policy makers to create an enabling environment.

The imperious necessity of an efficient implementation of the poverty reduction strategy requires the implementation of development based sectoral strategy, which brings out clearly the objectives, programmes and priority projects as well as the follow-up mechanisms needed for their implementation; therefore the ICT policy include in the poverty reduction strategy.

The following are the steps that we see as being necessary to provide leadership on the acceleration of opportunities in ICT for Development:

- A clear policy on Universal Access by Government and establishment of the Universal Access Fund which is under consideration.
- The development of specific pro-rural ICT policies in all areas of Government activities.

Developing countries are still to face other realities, namely :

- The expansion of VSAT and Internet access to the rest of the country
- Attention to ICT investment in the education sector at all stages, from nursery to university, as a way of insuring the availability of manpower in the near and long term future and a growing market for ICT products.
- Training of manpower, especially in the areas of electronic and electrical engineering, software engineering, network design and installation, network administration, free software to increase security and reduce the cost of

software licenses/taxes.

The final report of the Digital Opportunity Initiative (DOI) [7], developed by a UNDP partnership, outlines the ways in which ICT can be deployed as an enabler of development (as opposed to purely as a sector). In this respect, the DOI proposes principles and a strategic framework for action that countries can tailor to their specific circumstances to harness the benefits of ICT. This proposal is centered on : (i) leverage global opportunities, (ii) undertake consultative processes and put in place multisectoral partnerships and strategic compacts, (iii) develop a multi-sectoral / multi-dimensional approach; (iv) focus on five key strategic areas of action : ICT policies, ICT infrastructure, human capacity development, support to entrepreneurship, and development of locally relevant content and applications.

6. REFERENCES

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