

Progress and issues in financing ICT4D in Sub-Saharan Africa

Lishan Adam

A Brief Overview

This brief overview looks at the issue of financing ICTs¹ in support to the development in sub-Saharan Africa from two perspectives: 1) financing mechanisms to support the information and communication needs of the vast majority of African poor (ICTs for poverty eradication) and 2) mechanisms to facilitate the exploitation of ICTs to increase the rate of national development and economic growth in the region.²

Sub-Saharan Africa consists of thirty-four of the fifty least developing countries and fourteen of the thirty-two landlocked countries³ that are confronted with the most daunting economic, social and political challenges – high incidence of poverty, wider income inequality, internal civil strife and external conflicts, the scourge of disease particularly HIV/AIDS, high costs of the basic infrastructure (including telecommunications); limited human and technological resources; dependence on a limited export market; debt burden; low productivity; acute vulnerability to natural and environmental disasters, and more importantly over dependence on foreign aid. Over 40 percent of the population in Africa earns less than US\$1 a day – below a poverty line drawn by the World Bank⁴.

Since poverty eradication represents the most pressing need in Africa, the brief argues that ICT financing should primarily focus on the needs, aspirations, capacities and perspectives of the vast majority of poor people in Africa than from the dominant practice where ICT needs are articulated by ICT professionals with predetermined end products. The mainstream ICT financing mechanisms discourse should pay a great deal of attention to the needs of the poor and marginalized specially to women and rural people. To define financial mechanisms and strategies, we must first address the question of “who is being served for what purpose”. Such a spirit would be important to consider access to the poor as a public good and move the digital solidarity agenda forward.

ICTs should be used to empower the poor in their quest to eradicate poverty; at the same time, they should be employed to increase the rate of economic growth and entrepreneurship. Since the fundamental pillars of sustainable development such as education, social equality, health, environmental protection are essential to the empowerment of the poor, investment in backhaul and distribution infrastructure, promoting access to meaningful applications in key sectors like health, education and agriculture, advancing innovation, research, education and entrepreneurship that underpin

¹ ICTs in this paper comprise a spectrum of communication and information delivery tools as well as knowledge sharing technologies from radio, television, film, press to people, systems, institution and infrastructure supporting them.

² For an in-depth study of the issues hereby described see the document Financing ICT for development with focus on poverty on <http://wsispapers.choike.org>

³ Least Developing Countries Resources, <http://www.un.org/issues/m-ldc.asp>

⁴ see, http://millenniumindicators.un.org/unsd/mispa/mi_worldregn.aspx

the capacity to tailor ICTs for local needs are as important as promoting access to the poor. Effective ICT deployment would increase earning opportunities and improve the delivery of basic services like health and education. For ICTs to make these impact on the majority of the poor, there should be affordable access to it and sufficient human resources and technical capacity to create and use applications and content and an enabling policy environments that fosters entrepreneurship. Yet, it is important to take note of the fact that each country and community has unique sets of ICT needs and priorities. The needs are extraordinarily diverse. Therefore adequate effort is needed in designing, prioritising and implementing ICT programmes and reorganising resources and needs than relying on predefined “one size fit all” priorities.

Despite progress in expanding the reach of basic and new ICT services and applications in African countries, the majority of the population still does not have access to telephone service, computers and the Internet. The Sub-Saharan Africa is the least developed region when it comes to information and communication technologies. Moreover, there is a wide and uneven disparity along the fault lines of social inequality such as socio-economic status, age, gender, geographic location and ethnicity. Penetration of different technologies vary considerably – with broadcasting technology more diffused than PCs and the Internet. Of the approximately 841 million people in Africa in 2003, it is estimated that only⁵

- ?1 in 4 had a radio (210m)
- ?1 in 12 had a TV (71m)
- ?1 in 33 had fixed line (25 m)
- ?1 in 16 had a mobile phone (51m)
- ?1 in 80 had access to a PC (10.3m)
- ?1 in 70 had access to the Internet (12.3m)
- ?1 in 360 had access to pay-TV (2.3 m)

Raising access to radio to at least 100%, television to 25%, phones to 10%, mobile phones to 25%, computers and the Internet access to 5% is required to achieve same goals stated in the New Partnership for African Development (NEPAD) contract with the developed world, to contribute to poverty eradication and economic growth and to meet the Millennium Development Goals. This implies that efforts should be made to increase access to broadcasting technologies while making sure that the benefits of new interactive technologies shared widely by all including those in remote areas. However, as access moves beyond radio and telephones to more strategic and interactive technologies like the Internet, costs will become high, because resources are required to build broadband infrastructure to provide network access, pay for electrical infrastructure to make the ICTs work, develop skills infrastructure to keep all the technologies to work and improve usage skills and increase literacy in order to read the content⁶.

Bilateral and multilateral agencies, the United Nations bodies and foundations have played a key role in advancing the diffusion of ICT in the region and fostering enabling environment for the participation of the private sector in the delivery of services. Private sector investment was instrumental in the expansion of the cellular and Internet markets. Africa’s mobile market has been the fastest growing of any region over the last five years. Private sector has also played a key role in promoting ICT awareness, supplying hardware

⁵ International Telecommunications Union, 2004, African Telecommunications Indicators, 2004 and estimates

⁶ Heeks, Richard, 1999, Information and Communication Technologies, Poverty and Development, <http://idpm.man.ac.uk/idpm/diwpf5.htm>

and software, training and maintenance of ICT equipment. Multilateral companies are also entering the field of ICT for development, although it is not clear whether the social agendas mix with corporate profit motives.

However, despite optimism about the capacity of the private sector and direct foreign investment in the ICT sector and the growing consensus by International Financial institutions like the World Bank and multilateral donor agencies (as evidenced by the major stress of a recent Report of the Task Force on Financing Mechanisms) that investment in ICTs should largely be left to the private sector, the outcomes of privatisation and liberalization has not been that successful in Africa. Primarily the large flows of private investment have been to a handful of countries in the region such as South Africa, Tunisia, Egypt and Morocco where infrastructure has well-developed already. Secondly, privatisation did not lead to automatic increase of the number of users or bring the costs of access down. A recent Research ICT Africa⁷ network survey concludes that a number of factors including the disposable income that ordinary people allocate to the basket of communications and their needs should be taken into account when designing ICT intervention on a purely market basis. Thirdly, private investment in infrastructure and liberalization did not lead to automatic extension of the most important technologies such as fixed lines, radios or televisions or reduce the cost of broadband connection that would have improved access to education, health and other livelihoods content such as that on jobs and business opportunities. Lastly, liberalization or the imposition of free-market conditions onto the inequitable conditions in the region without programmes of redress, had simply reinforced the iniquitous status quo⁸ in some cases led to transfer from public monopoly to private one.

Although competitive markets represent one of the alternative options to promote universal service, there has always been a large segment of the African population whose needs was not met by markets. Africa has the largest segment of the population that is below the poverty of line and with weak purchasing power whose needs should be met by alternative financing mechanisms that extend beyond the borders of the market.

Most importantly, Africa's ICT for development challenge extends beyond the infrastructure. Of course, there has been numerous approaches and studies by regional institutions and countries to set national and regional ICT for development priorities that go beyond infrastructure. About two-thirds of African countries have already developed their national ICT strategies, although the quality and usefulness of these strategies raises a number of questions. Otherwise, integrating ICTs in poverty reduction strategies provide a very useful and more logical starting point for subordinating them to development goals. However, despite interest in the ICTs, most poverty reduction strategies have difficulties in mainstreaming them to their programmes. This does not only show a consistent tension between ICT professionals having difficulty to understand the underlying development challenges and development professionals' struggle with identifying the potential of ICTs in poverty alleviation but also points to the need for cooperation between the two groups to map out the full range of economic and social challenges, articulate their information, communication and knowledge dimensions and identify ways in which ICTs address these challenges⁹.

⁷ www.researchictAfrica.net

⁸ Alison Gillwald, Policy and Regulatory Challenges of Access and Affordability, www.lirne.net/resources/netknowledge/gillwald.pdf

⁹ OECD, Policy Brief: Integrating Information and Communication Technologies in Development Programmes, OECD Observer, November 2003

A recurrent theme that has been emerging from experience and the analysis of national e-strategies and position papers is that ICT financing mechanisms in Africa should concentrate on five major areas:

- ✍ Promoting access to and empowering the vast majority of African poor
- ✍ Facilitating the diffusion of modern and interactive ICTs by building both backbone and distribution infrastructure
- ✍ Investing in human capacity to foster innovation and entrepreneurship so as to increase usage and develop applications that solve development problems and increase economic growth
- ✍ Mainstreaming ICTs in key sectors of development
- ✍ Supporting initiatives that promote enabling policy and regulatory environments

Based on somewhat a ballpark estimates, African countries need at least US\$600-900 million dollars of additional financing well beyond that is available from public, private and development finances to empower the poor through increased access to information via traditional and modern tools, build broadband infrastructure and human capacity, mainstream ICTs in key development sectors and to enhance policy, regulatory and institutional frameworks to make ICTs work for the majority and ultimately contribute to achievement of the Millennium Development Goals. The Digital Solidarity Fund and Global Public Goods framework have been considered as alternatives to meet the shortfalls and for mobilization and channelling additional long-term finance to bridge the access gaps in developing countries beyond traditional financing.

The proposal for the Digital Solidarity Fund was made by President Abdoulaye Wade of Senegal during the first phase of WSIS. The Fund aims to support the development of infrastructure, human resources and applications particularly projects that focus on “community development, cultural diversity and local content, targeting women organisations and using micro-credit strategies, such projects seek to address insolvent demand, with a view of creating new businesses and, in the long term, new markets.” The Fund, which was established as a legal foundation in Geneva, has secured contributions from cities and local authorities. It has raised over 5 Million Euros and aims to collect more through levies on ICT company contracts procured by participating government entities. As municipalities represent the largest contingent of DSF members, emphasis has been placed upon collaborative relationships and consultations in ICT applications among municipal governments in developed and developing countries.

While the enthusiasm for the Digital Solidarity Fund is high particularly at the level of key regional organizations and some countries, there is growing uncertainty in Africa about the underlying priorities (e.g. whether there is some analysis where the resource should go in the first place), governance, management, administration, and strategies for disbursement of the funds. The division between those promoting the Digital Solidarity Fund and others who encourage use of existing mechanisms and other innovate mechanisms has been apparent in Africa as demonstrated by the resolution of the African Preparatory Conference for the second phase of the World Summit for the Information Society that was recently held in Accra. The meeting called for both the “support of the Digital Solidarity Fund that would complement and not duplicate other funding of the information society,” and the use of existing financing “to fund the growth of new ICT infrastructure and services.” There is also concerns within the donors community about the risk of diverting resources to ICTs from more proven areas of development intervention and the

desirability of establishing another independent sectoral institution to manage interventions aimed primarily at mainstream development goals¹⁰. Some experts believe that the DSF may perpetuate the longstanding “charity-based” economic ecosystem where governments are linked to natural resources and foreign aid and the fragmentation of funds into smaller projects that will not be sustainable. Nevertheless, there is feeling that the DSF be given a chance to prove it self especially in exploiting its strong alliance with local governments.

The public goods approach has become an important and an alternative framework for justification for financing mechanisms that go beyond what the market supplies. The public goods framework Posits that¹¹:

“Extending access to the Information Society in developing countries is a global public good that benefits everyone because of the value of network externalities. The value of the global information network increases in value as more national networks and business and individual users are added. Since the global economy runs on global information networks to create a global marketplace, the private sector in developed countries stands to benefit from the extension of ICTs in developing countries and should help pay for ICT for development as a global public good. Therefore, a Global ICT Fund should be established, similar to the Global Environmental Facility, which could raise funds through a global tax on microchips, for example. The proceeds of the Global Fund would be directed towards building information societies and economies in developing countries.”

Access to ICTs and knowledge in Africa meets these main characteristics of trans-national public goods. Universal access to ICTs “can be considered as a global public good in that it is theoretically and practically both non-rival [one person’s consumption of the good does not diminish the amount available to others] and non-exclusive [no one should can be excluded from access)]¹². Access and empowerment of the poor thereby reduction of poverty in Africa will directly contribute to the well-being of others, through reduced conflict and decline in communicable disease and environmental damage. In effect, no place deserves more attention than sub-Saharan Africa when it comes to public good. Moreover, access to ICTs networks makes the delivery of a wide-range of services that in turn enhance other public goods. Likewise, access to ICTs and knowledge by the African poor is important to the international community, to both developed and developing countries; the overwhelming financial burden for bridging the digital divide will not be adequately addressed by individual African countries or entities acting alone and best addressed collectively on a multilateral basis.

These options for ICTs financing show that improving the legal, regulatory and governance framework is important to attract further donor funding, private sector investment exploit existing mechanisms; at the same time it is important for African countries to participate in broader debate on new innovative financing mechanisms.

Likewise, the ability of African poor to improve their livelihood is not only limited by lack of access to ICTs, information and relevant applications in key sectors, but also by a

¹⁰ David Souter, (2004), African Participation in WSIS: review and discussion paper, Prepared for the Association for Progressive Communication (APC), <http://rights.apc.org/documents/governance.pdf>

¹¹ Association for Progressive Communication, Financing ICTD in Africa, http://africa.rights.apc.org/index.shtml?apc=29740se_1&x=30657

¹² Pablo Accuosto and Niki Johnson (2004) Financing the Information Society in the South: A Global Public Goods Perspective <http://rights.apc.org/documents/financing.pdf>

complex web of constraints ranging from unresolved problems of governance and injustice at the local levels and the dynamics of the global economic system¹³. The implications of policy and governance should not be underestimated. The quality of local governance does not only determine the characteristic of the policy and regulatory environment that ideally promote optimum private sector investment and public and private sector partnership but also affects the extent to which resources are mobilised and those that are invested benefit those who need access the most. It is more likely to find limited access to ICTs in the most corrupt institutions or countries than in those with good governance structures.

Similarly, African countries' participation in global governance issues and their access to trade and debt relief are critical for their improved participation in information society. Financing the mainstreaming of ICTs in health and education will not make sense if the debt burden makes it virtually impossible for African governments to maintain adequate programmes of public education and health in the first place. Fairer access to trade will encourage optimum use and appropriation of ICTs. Therefore the discourse on financing ICT for development should therefore encompass frank evaluation of the impediments associated with local governance, the global trade regime and the broader debates on debt relief.

On their part the government should stimulate financing ICT with a focus on poverty. Governments should:

- ✍ Promote a concept of digital solidarity with the majority of poor people in Africa and make sure their empowerment and information and knowledge needs met using a mix of old and new innovative financing mechanisms
- ✍ Consider universal access to ICTs as a public good and pursue financing mechanisms within the public goods framework to bridge the access gaps of those below the poverty line
- ✍ Create enabling legal, institutional and policy environment for increasing access to and effective use of available financing mechanisms
- ✍ Remove barriers so that access as a global public good be available to everyone
- ✍ Create innovative policy models that promote the participation of non-profit operators in the deployment of ICT infrastructure and development of bottom-up ICT infrastructure using innovative wireless technologies
- ✍ Facilitate community-driven approaches to access provision
- ✍ Embrace universal access strategies using locally available resources and innovative financing ranging from enforced obligation to operators, establishing universal service funds and employing innovative methods such as minimum subsidy auction and community-driven approaches such as rural cooperatives
- ✍ Promote access to alternative and innovative financial resources such as remittances. Remittances represent a significant resource and rely on moral contract that promotes the spirit of public good.
- ✍ Design and implement e-strategies within the spirit of public goods for example promoting an integrated planning to ICTs with health, road, energy and other infrastructure at local level
- ✍ Support effective use of existing finances by enforcing proper management of resources

¹³ Cynthia Hewitt de Alcantara - The Development Divide in a digital Age: an issue paper
<ftp://ftpservers.unicc.org/unrisd/outgoing/pp/tbs/hewitt.pdf>

- ✍ Encourage the participation of local researchers to develop and implement the concept of global public goods
- ✍ Actively participate in the global debate on public goods and broader issues on financing development

. These should not be left only to government and international community. Regional organizations such as the African Union and programmes such as NEPAD should play a key role in studying new mechanisms and synchronizing existing sources of finance with enabling policy environments so as to enhance the impact of ICTs on the majority of the African people.