

ICTs for poverty reduction

ICT applications in developing countries are often part of an overall strategy for economic growth, relying on the trickle-down effect to those in poverty.... Moreover, poverty is more than just a lack of income.



Richard Gerster and Sonja Zimmermann,
Gerster Consulting
richard.gerster@gersterconsulting.ch

“We need more knowledge about the most conducive conditions for making ICTs an effective instrument for the poor to improve their own standard of living. This article, based on a discussion paper commissioned by Swiss Agency for Development and Cooperation (SDC), attempts to analyse the problems and potentials of ICTs used by people living in poverty, such as illiterate people, unskilled labourers, self-employed micro entrepreneurs, subsistence farmers, women, people speaking minority languages, populations living in remote areas”, says Walter Fust, Director General, SDC.

Poverty reduction

ICT applications in developing countries are often part of an overall strategy for economic growth, relying on the trickle-down effect to those in poverty. The limitations of this approach are well known. Moreover, poverty is more than just a lack of income. Poverty is the opposite of well-being in a comprehensive sense.

In its World Development Report 2000/2001 “Attacking Poverty”, the World Bank describes the road from poverty to well-being being built on empowerment, opportunity and security. Effective poverty reduction requires a more targeted approach. Beyond a lack of income, the multidimensional concept of poverty also refers to: disadvantages in access to land, credit, and services (e.g., health and education); vulnerability (towards violence, external economic shocks, natural disasters); powerlessness; and social exclusion.

Four alternative strategies for poverty reduction, and their capacity to make use of ICTs, can be distinguished:

- a production-oriented growth strategy, including pro-poor corrective measures;
- the sustainable livelihoods approach, putting people first;

- a distribution-oriented strategy, emphasising the redistribution of assets;
- a rights and empowerment strategy, promoting knowledge about basic rights and empowerment of people.

The role of ICTs in poverty reduction is not limited to reducing income poverty, but also includes non-economic dimensions—in particular, empowerment.

From information to communication

ICTs facilitate the creation, storage, management, and dissemination of information by electronic means. This definition includes radio, television, telephone, fax, computer, and the Internet. Four characteristics describe these modern ICTs:

- Interactivity: ICTs are effective two-way communication technologies.
- Permanent availability: the new ICTs are available 24 hours a day.
- Global reach: geographic distances hardly matter any more.
- Reduced per unit costs for many: relative costs of communication have shrunk to a fraction of previous values.

Access to information is determined by:

- Connectivity: are the services available?
- Affordability: can potential clients afford the access?
- Capability: have the potential users the skills required for access? The users’ skills relate to technical abilities, language, and literacy. These requirements highlight the concern of gender equality in access, as in many countries women are among the most disadvantaged. The users’ capacities matter, of course, not only when accessing information but also when transforming it into practical opportunities.

Information becomes relevant knowledge that can be used for communication

when a local context is added—i.e., if a link can be established between the information and the user's environment which makes mastery and internalisation of information possible. At the moment, this link often has to be made by the user. Increasing sophistication of technical information starts new processes in this respect. Local content is a key issue in knowledge creation. It is defined as "locally owned and adapted knowledge of a community – where the community is defined by its location, culture, language or area of interest."

When considering poverty reduction from the ICT perspective, either ICTs or poverty reduction can be at the heart of initiatives. Depending on the starting point (i.e., ICTs and using them to reduce poverty, or poverty reduction using ICTs), two basic approaches can be identified: a supply- or a demand-driven approach. These emerge from the different interests of the actors and are often closely linked to the core tasks of the respective organisations and institutions. Generally, technical institutions, such as the International Telecommunications Union (ITU), have a more supply-driven approach. This focuses on providing the technology; the key issues are connectivity and access. On the other side, some donors and NGOs favour a more demand-driven approach. Key issues in this approach are capacity development and knowledge sharing.

Information can be seen as a Global Public Good (GPG). In contrast to that

perspective, intellectual property rights (IPRs) attempt to restrict and monopolise the use of information. Developing countries usually own little protected information; they mainly import information to modernise their economy and society. Ultimately, such IPRs lead to a tacit "taxation" of the developing countries in favour of the developed countries that runs counter to efforts at poverty reduction.

Challenges and lessons learnt

Main challenges in ICTs' application for poverty reduction include:

- ICTs are technologies and as such cannot solve political or social problems that are often at the roots of poverty;
- Due to the requirement of "connectedness" (roads, power, telephone), most of the ICTs have an urban bias and discriminate against rural areas;
- The potential poor beneficiaries of ICTs are often unskilled, illiterate people, mainly women, who may also speak a minority group language.

The impact of ICTs on poverty differs greatly, depending on which technology is used. Radio and telephony are rather cheap; their use requires relatively few skills, while, in terms of context and language, they enjoy great flexibility. Access, through radio, to relevant and timely information can make a difference in the sustainable livelihoods of people living in poverty. Empirical evidence about the fast-developing modern ICTs, mainly the Internet, however, is still quite limited.



Despite being a powerful medium in developed conditions, the Internet faces serious limitations in broad-based poverty reduction efforts. Even a collective access to Internet in village telecentres shows low relevance and use of the Internet compared to other ICTs, particularly radio. The direct added value of the Internet to the poorest has yet to be conclusively demonstrated.

Basic lessons learnt related to the use of Internet are:

- Those who live in poverty must define their information needs themselves in order to get relevant answers.
- The information provided should be in the local language and, even better, originate from local sources.
- The ICT component should be embedded in a broader effort of self-help or external support.
- Successful Internet applications for development often depend on individuals and their enthusiasm, competence, and motivation.

The Internet has indirect potential for poverty reduction:

- ICTs can enhance the transparency and accountability of governments, contribute to an enabling environment of good governance, and support the mobilisation and empowerment of people in poverty;



Potential beneficiary of ICTs

Can ICT make them stand against poverty?



Chitra Pathak

- Well-embedded and targeted ICT applications, particularly in the export sector, may create additional jobs and revenues for those in poverty;
- The radio, particularly in rural areas, may function as an intermediary to facilitate access to the Internet, overcoming barriers of infrastructure, language, and skills.

There can hardly be any doubts about the poverty-reducing impact of NGO-led global advocacy campaigns. The impact of civil society as a countervailing power and the changing perceptions of poverty in the North may be less obvious. But the global campaigns, the upsurge of civil society, as well as poverty perceptions, are “children” of the Internet age and, as such, are deeply influenced and stimulated by the medium of the Internet.

Recommendations for donors

The donors should take these insights into account when shaping their ICT for Development (ICT4D) approach. Main recommendations for the way ahead in

donors international cooperation involving ICTs are:

- Donors should intensify the stock-taking exercise to identify ICT components in the current bilateral and multilateral programmes;
- Based on the experience gained, The donors should start giving mainstream attention to the information and communication components of poverty and the appropriate use of ICTs in the bilateral operations;
- In policy dialogue with partner countries, donors may consider insisting on an enabling environment (overall and ICT-specific, including Poverty Reduction Strategy Papers, PRSPs) in

view of pro-poor outcomes;

- Beyond mainstreaming, donors should continue to strengthen the voices of those in poverty in the international arena (multilateral negotiations, NGO advocacy, media) and to support the empowerment of local institutions and networks;
- In the framework of the World Summit on the Information Society, WSIS, and other multilateral negotiations, the nation should enhance multilateral rules empowering developing and transition countries as well as people in poverty, strengthening their self determination and enhancing their opportunities. ■

Global poverty trends by region, 1990-99

(percentage share of population, with absolute number in millions in brackets)

	Under US\$1 a day				Under US\$2 a day			
	1990		1999		1990		1999	
East Asia and the Pacific	30.5	(486)	15.6	(279)	69.7	(1.114)	50.1	(897)
Eastern Europe and Central Asia	1.4	(6)	5.1	(24)	6.8	(31)	20.3	(97)
South Asia	45.0	(506)	36.6	(488)	89.8	(1.010)	84.8	(1.128)
Latin America and the Caribbean	11.0	(48)	11.1	(57)	27.6	(121)	26.0	(132)
Middle East and North Africa	2.1	(5)	2.2	(6)	21.0	(50)	23.3	(68)
Sub-Saharan Africa	47.4	(24.1)	49.0	(315)	76.0	(386)	74.7	(480)
Total	29.6	(1.292)	23.2	(1.169)	62.1	(2.712)	55.6	(2.802)

Source - World bank : Global economic prospects and developing countries 2003