POLICY BRIEF

OECD

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Integrating Information and Communication Technologies in Development Programmes

Introduction

Information and communication technologies (ICTs) can play a key role in development and poverty reduction. ICTs can help promote economic growth, expand economic and social opportunity, make institutions and markets more efficient and responsive, and make it easier for the poor to obtain access to resources and services. It can also make it easier to make the voices of the poor heard in the decisions that shape their lives.

But ICTs can only become an effective tool for development and poverty reduction if they are an integral part of a broader, more comprehensive national development strategy. The donor community can help developing countries realise the full potential of ICTs for development, but only if their own ICT programmes and strategies are more clearly focused on the Millennium Development Goals. Donor agencies need to ensure that their ICT programmes and strategies are better adapted to the specific needs and circumstances of individual developing countries and to become better informed through more information sharing and more rigorous analysis of recent experience of ICT-for-development programmes.

The World Summit on the Information Society (WSIS), which holds its first phase in Geneva in December 2003 and a second phase in Tunis in 2005, provides a major opportunity for concerted effort by the donor community and their developing country partners to integrate ICTs more effectively into broader development and poverty reduction strategies and programmes. Such “mainstreaming” of ICTs for development should help to curb excessive enthusiasm for ICTs and counter skepticism that they are a distraction for poor countries. ■

Observer oecd

How can ICTs help to combat poverty and promote development?

Experiments and initiatives to use ICTs to combat poverty and promote economic growth and sustainable development in developing countries have proliferated in recent years. These efforts have been rooted in the recognition that information and knowledge -- quickly accessed, properly adapted, and broadly shared -- are key drivers of economic growth and social opportunity. ICTs can promote development in a number of ways by decreasing the cost and increasing the speed and ease of communicating, accessing and adapting information and knowledge. They can dramatically improve the performance of the private sector, i.e. individual producers, firms and markets; increase access to and the quality of education and health care; increase the transparency and accountability of government institutions; improve service delivery to the poor; and give the poor a voice in decisions that shape their lives. Conversely, countries where information flows poorly, communication is difficult or even intentionally constrained, and knowledge is not easily accessible, tend to be low-growth countries caught in poverty traps worsened in many cases by disease, environmental degradation, and ineffective or corrupt government institutions.

The experience of recent years with ICTs in developing countries has taught us much about their potential as tools to combat poverty and promote development. Yet, it has also taught us that ICTs are not a "silver bullet" to eliminate the root causes of poverty, and their impact depends on a complex set of other enabling factors that require priority attention. These include proper policy and regulatory environments for innovation and private investment in ICT infrastructure and applications; a favorable environment for private sector development; openness to global markets; and a strong commitment to education and capacity building. ICTs can help in some ways to advance these other goals, but they do not substitute for them.

ICTs are not an end in themselves; they are particularly effective tools to achieve other ends such as more productive farmers and firms; more transparent markets; a better-educated and healthier population; better environmental and natural resource management, greater access to global innovation, information and knowledge. But ICTs can only serve as effective tools if a country has a clear strategy for achieving those ends and the resources, capacity and will to pursue that strategy. ICT-for-development programmes, therefore, should be clearly subordinate to, and in service of, these broader goals and strategies. The benchmark in ICT-for-development programmes must remain their contribution to progress towards the Millennium Development Goals, and the creation of vibrant markets and institutions in developing countries. Access to ICTs, by itself, is a poor proxy for these fundamental goals. Focusing only on "closing the digital divide" could distract from and undercut these more urgent priorities. ■

How can ICTs be integrated into development programmes?

Effectively integrating ICTs into development programmes depends on striking a balance between excessive enthusiasm that ICTs can "solve" the problems of poverty, and the equally-common belief that ICTs are an "expensive distraction" from those problems which "the poor cannot afford". This means beginning with a focus on national development and poverty reduction strategies that are specifically adapted to the needs, circumstances, resources and constraints of a given country, and then asking, on the basis of experience thus far, how ICTs can help to realise the priority elements of those strategies in a specific country. Both elements are crucial: a *sharper focus* on core development priorities, and a broader awareness of how, given those priorities, ICTs can serve as valuable tools.

National development strategies in general, and poverty reduction strategies in particular, provide the framework for this sharper focus on core development priorities. These strategies serve to map the full range of economic and social challenges these countries face, the resources they can draw on to address those challenges, and their priorities for action. One can then articulate the information, communication and knowledge dimensions of these challenges, and thus the way that ICTs can help to address them.

This requires greater awareness on the part of developing country governments, and the donor

Box 1. Integrating ICTs in Donor Strategies: The DFID Experience

Several bilateral and multilateral donor organisations have sought in the past few years to move beyond an *ad hoc* and experimental approach to ICTs to a systematic approach focused on mainstreaming ICTs across all sectors of their work and in their broader approach to development and poverty reduction. A strategy paper published by the UK Department for International Development (DFID), "The Significance of Information and Communication Technologies for Reducing Poverty" (www.dfid.gov.uk/Pubs/files/ict_poverty.pdf) demonstrates one approach to mainstreaming.

The paper focuses first on the information, communication and knowledge-related aspects of persistent poverty, and the impact of "information-poor environments" not only on the poor but on the institutions that shape their lives (government bureaucracies, markets, educational and health care institutions). This provides a lens for understanding the information and communication dimensions of poverty and low growth, and thus a framework for targeting ICT projects more effectively to address those problems.

The paper also argues that ICT-for-development programmes must be understood as subordinate to, and in service of, the Millennium Development Goals (MDGs). Thus the measure of success for ICT programmes is not an increase in access to ICTs but the impact of those ICTs on progress toward the MDGs.

community, of the specific ways in which ICTs can advance development goals, based on objective assessment of experience to date. This, in turn, depends on more comprehensive information sharing on, and more rigorous analysis of, ICT-for-development programmes. Yet, both within individual donor agencies and across the development community, reliable information and critical evaluation are still in rather short supply when it comes to ICT-for-development programmes. For these reasons, the role of ICTs as a driver of development is still viewed with some skepticism by many development specialists, and ICT strategies are only slowly being integrated into national development plans and poverty reduction strategy papers. ■

How can ICTs be adapted to the specific needs of the poor and of developing countries?

In ICT-for-development programmes, one size does not fit all. Every developing country is unique, with its own distinctive set of challenges, needs, resources, and priorities. Its national development strategy and poverty reduction strategy should reflect that uniqueness, while benefiting from, and adapting to, global experience with the challenges of development. The same applies to ICT strategies and programmes. While they should draw on global experience, they will only be successful if they adapt that experience to local realities. This means giving priority attention to local actors, local *content*, and locally-identified initiatives and priorities. Local content is particularly important because, while the Internet provides instantaneous access to vast global resources of information and knowledge, the most valuable knowledge is often that which is properly adapted to local context, local needs and local styles of learning and sharing knowledge. Understanding local *context* is equally important. ICTs might enable certain changes in the abstract, but their success in concrete cases depends heavily on the economic, social and institutional structures in which they are embedded. The introduction of computers in a government ministry, for example, will not by itself change a hierarchical bureaucratic culture where using a computer is viewed as a “secretarial” function.

For these reasons, the success of ICT projects depends in most cases on anchoring projects at the local level and working closely with local partners who understand these constraints. The local private sector in developing countries is a key partner in promoting broader use of ICTs and in

Box 2. ICTs in PRSPs and in National Development Strategies

Given the importance of embedding ICT strategies and programmes in broader national development and poverty reduction strategies, the OECD, in co-operation with the Japan International Cooperation Agency (JICA), has been analysing the extent to which ICTs are explicitly mentioned in, and integrated into, the official national development plans of developing countries and the Poverty Reduction Strategy Papers (PRSPs) of Heavily Indebted Poor Countries (HIPC.) (The updated reports on this research can be found at www.oecd.org/dac/ict)

Of the 29 PRSPs developed as of August 2003, 12 countries (Albania, Azerbaijan, Cambodia, Cameroon, Chad, Gambia, Ghana, Mali, Mozambique, Niger, Rwanda and Sri Lanka) define or position ICTs as a strategic component of poverty reduction and discuss it as an independent item in their PRSPs. The remaining countries have not included ICTs as an independent strategic component, although some of their PRSPs mention telecommunications sector development as a factor in development or as a component of the infrastructure for economic growth.

Of 64 national development plans analysed as of August 2003, the vast majority (57) make some mention of ICTs as an element in national development. The amount of attention given to ICTs, and its prominence as a strategic element in national economic development, varies considerably. Some countries have explicit and elaborate national ICT strategies as well as official bodies empowered to lead the implementation of those strategies. In other cases, there is an explicit ICT strategy, often developed and led by an ICT-related ministry, but its integration with, and relative priority within, broader national development strategies is unclear or contested.

Experience from Mozambique and Jordan

The recent experience of Mozambique and Jordan is illustrative of the opportunities and challenges that developing countries face in integrating ICTs in national development plans and programmes.

Mozambique has seen much ICT-for-development activity in recent years, but it was not well-integrated with national development plans. A high-level National Commission, after broad consultation, issued in 2002 a comprehensive strategy for using ICTs to combat poverty in Mozambique and build a knowledge society. Implementation of the first phase of the strategy -- with an integrated approach covering human resources, infrastructure, business, governance, legal framework and content -- will continue through 2005, and then the second phase will follow. It will require an integrated approach with co-operation among all stakeholders and dialogue with donors and other international partners.

Jordan is focusing both on ICTs as a tool of development and poverty reduction, and on making Jordan a hub of ICT-related economic development in the Middle East. This requires modernising the country's ICT infrastructure, adapting tradition-bound education and training systems; increasing regional and international links; and encouraging entrepreneurship, while retaining and enhancing Jordan's position as a developer of skilled human resources.

strengthening local capacity to develop and adapt ICT tools and applications relevant to local needs. Non-governmental organisations (NGOs) also play a vital role by adapting ICT tools and content to local needs. They can also help to focus ICT efforts on the needs of the poor and on the specific economic and social dimensions of persistent poverty in a given locality, including the gender dimension. ■

Box 3. Grameen Village Phone Project

In an innovative example of mixing microfinance and ICTs, the Grameen Bank in Bangladesh has empowered thousands of rural women by lending the initial capital to enable them to set up village phones. Villagers are willing to pay up to $1 per minute to make essential calls. The cellular telephone gives access to crop prices, market information, and currency rates, helping the poor to improve their social and economic position. Moreover, by being able to contact the police station or legislators it is also slowly helping to transform the society and help people to regain their dignity through democratisation and empowerment.

What is the role of the donor community?

The donor community has a crucial role to play in helping developing countries integrate ICTs as effective tools to combat poverty and promote economic growth and social inclusion. This role has at least three dimensions. First, the donor community has an important role in helping develop successful strategies for using ICTs in development. This means encouraging developing countries to take full account of the potential of ICTs and to integrate them fully and thoughtfully in their national development plans and PRSPs. Yet this can only happen if donor agencies themselves have a coherent and proactive strategy for integrating ICTs in their policy advice, their dialogue with developing country governments, their analysis of poverty and its causes, and their sectoral work. This does not mean *prioritising ICTs* or pushing "e-strategies" at the expense of broader national development and poverty reduction strategies. Rather, it means, for donors, having the analytical framework, resources and institutional commitment to harness the potential of ICTs, and helping their developing-country interlocutors to integrate ICTs strategically and appropriately into their national development plans and programmes.

Second, this strategic dialogue between donors and developing countries on the potential of ICTs needs to be backed up with *support* from the donor community to carry forward the plans and programmes articulated in the developing country's ICT-enabled poverty reduction and growth strategy. The uneven, and often unmeasurable, results of earlier ICT-for-development programmes naturally lead to some doubts about whether ICT programmes are a priority for donor support. In the context of the renewed commitments likely to result from the WSIS process, donors must find ways to direct resources to ICT projects, as well as ICTs *within projects,* that are well-articulated within an overall national strategy and show particular promise of having a strong impact on a country's achievement of the Millennium Development Goals. Since resources are finite, this support requires more effective coordination and rationalisation of donor initiatives in the ICT field. There is still duplication of effort in the ICT-for-development field, which not only squanders donor resources but imposes an extra burden on developing countries as they seek to coordinate with and respond to a wide array of donor and international partners. (The recent proliferation of "e-strategy" exercises is one example of this problem.)

This points to the third issue – the crucial importance of greater *sharing* of strategies, knowledge, data on existing efforts, and evaluation of past efforts among donor agencies and with their partners in government, the private sector and civil society in developing countries. Donors need to engage in more rigorous evaluation and measurement of the *impact* of ICT initiatives, and to instill an ethos of learning from both successes and failures in the ICT field. Common attention to "best practices" can be misleading, given the importance of local *context* and adapting to local needs. Therefore, evaluation needs to focus not simply on which projects have succeeded but on the context of that

Box 4. Lessons from Recent OECD Research

Two recent OECD research projects provide valuable lessons for developing countries seeking to harness the power of ICTs.

Ongoing OECD research on disparities in growth and the contribution of ICT to growth in OECD countries (www.oecd.org/growth) has revealed that ICTs play three roles in fostering growth:

– Through capital deepening, as ICTs are an important asset in overall business investment;
– Through multi-factor productivity (MFP) growth in the production of ICT goods and services (e.g. technological progress in semiconductors);
– Through MFP growth thanks to the use of ICTs, either through efficiency gains in individual firms, or through network/spillover effects from ICT use.

Yet ICTs are no panacea. Where growth occurs, ICT deployment is accompanied by complementary investments, such as skills development and organisational change. A number of factors, including the size and age of the firm, the extent of competition, management quality, and broader innovation efforts, play an important role as well.

The lessons for developing countries include the importance of:

– Getting the fundamentals right, so that markets work and macroeconomic conditions are sound;
– Facilitating the diffusion of new technologies;
– Fostering a pro-innovation environment so future technologies will emerge and spread;
– Investing in human capital and adapting labour market institutions and policies to the changing nature of work;
– Improving the entrepreneurial environment to help commercialise new technologies.

Recent OECD research on the challenges and opportunities posed by e-government in OECD countries (www.oecd.org/gov/egov) also provides valuable lessons for developing countries. The use of ICTs will not necessarily improve governance and public service, nor will it necessarily make governments more responsive to their citizens. E-government will not succeed without, and is not a substitute for, deeper and more difficult changes in government practices and bureaucratic culture. E-government can help facilitate these changes, but they will not happen simply by the injection of technology.

Also, since the poorest typically have the least access to ICTs but the most urgent needs for government services, developing countries have to pay particular attention to how e-government initiatives can expand the poor's access to government services, their understanding of those services, and their effective voice and participation in government decision-making and policy implementation.

success and on critical success factors, including demand, cost, capacity and content. ■

How can the OECD contribute?

As part of its ongoing role in fostering greater international coordination, shared learning and joint effort within its Development Assistance Committee (DAC), the OECD can help to mainstream ICT-for-development issues and strategies in donor programmes, providing policy leadership, awareness raising and benchmarking. The G8 Digital Opportunity Task Force (DOT Force) acknowledged the contributions of the OECD in its "Report Card" presented to the G8 summit in Kananaskis, Canada, in 2002, pointing out that the DAC "has begun to play a key role in sensitizing donors to the catalyst role of ICTs in development and poverty reduction and in mainstreaming ICTs into OECD member countries' development assistance programs."

The OECD has contributed to improving information-sharing, coordination and learning among donors and others by producing a Matrix of the scope of ICT-for-development projects, of "who is doing what". The Matrix lists strategies, organisational arrangements and major programmes for 23

bilateral and 25 multilateral donors (www.oecd.org/dac/ict). The Matrix provides a point of departure for a more comprehensive effort to share information about ICT initiatives, to measure the various inputs to the ICT-for-development effort, and to reduce overlap and unnecessary duplication of effort. The OECD can play a continuing and growing role in facilitating this information-sharing.

This improved information-sharing would then provide the basis for more in-depth analysis of the impact of ICTs on development, the critical success factors, and the policy frameworks that best promote ICT growth and access. Here also, the OECD can play a valuable role, particularly in helping to develop benchmarks of progress in deploying ICTs and integrating them into economic and social life. In addition, the OECD's ongoing work on the causes and dimensions of economic growth in OECD countries, and the role that ICTs play therein, can provide valuable lessons for developing country governments and donors in promoting ICT-enabled growth and poverty reduction in developing countries. ■

What are the opportunities and challenges for the World Summit on the Information Society?

The World Summit on the Information Society (WSIS), of which the first phase will convene in Geneva in December 2003, provides an invaluable opportunity to advance efforts to mainstream ICTs in development programmes. By articulating a shared vision of a global "information society" and of the importance of including all, notably the poor, in the opportunities created by that information society, WSIS can help to make clear the crucial synergies between increasing access to, and effective use of, ICTs and increasing opportunities for all. It can help make clear to heads of government the contribution that ICTs can make to achieving the Millennium Development Goals, by articulating the powerful impact that ICTs can have on the diverse challenges facing developing countries in sectors such as health, education, agriculture and rural development, the environment, public sector management, and others.

A key challenge facing WSIS, and the entire international community, is to keep focused on the fact that ICTs are means, not ends; that the Millennium Development Goals are the real measure of progress, not ICT statistics; and that ICTs, as tools, are only as effective as the positive changes they make possible. For this reason, WSIS needs to have a strong “pro-poor” agenda, and a focus on how the creation of a global information society can include the poor, widen their opportunities, give them voice, and promote sustainable economic growth that will help them rise out of poverty. The benchmark for proposals and priorities that emerge from WSIS must be how they will contribute to that broader end of poverty reduction and sustainable development, not simply how much they will increase access to ICTs. Proposals that emerge from WSIS must be backed up by concrete and realistic financial commitments that draw on four complementary sets of resources: local resources; bilateral donors; multilateral donors; and private investment. All parties must accept responsibility to make realistic commitments and deliver on them. Given the enormous challenges of realising the Millennium Development Goals and the resource constraints that are likely to continue (even under optimistic scenarios for growth in official development assistance), more attention must be paid to maximising synergies among existing resources and using aid strategically as a catalyst for private investment. ■

Further Information

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For Further Reading

- **CD-ROM: Joint OECD/UN/World Bank Global Forum on the Knowledge Economy "Integrating ICT in Development Programmes"**, OECD, Paris, 4-5 March 2003. Available free at **www.oecd.org/dac/ict**

- **Donor ICT Strategies Matrix**, Available at **www.oecd.org/dac/ict,** also available via an order form on the same site is a free CD-ROM version that includes many other ICT-related documents.

- **ICT and Economic Growth, Evidence from OECD Countries, Industries and Firms** ISBN: 92-64-10128-4, €21, 104p.

- **OECD Information Technology Outlook**, 2002 ISBN: 92-64-19754-0, €75, 332p.

- **OECD Communications Outlook**,2003 ISBN: 92-64-19984-5, €75, 260p.

- **The e-Government Imperative**, 2003 Available at **www.oecd.org/publications/Pol_brief**

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