



INTERNATIONAL INSTITUTE FOR  
COMMUNICATION AND DEVELOPMENT



# THE ICT ROUNDTABLE PROCESS

Lessons learned from facilitating ICT-enabled development



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## Foreword

This booklet forms part of a series of studies<sup>1</sup> realised by the International Institute for Communication and Development (IICD). It is an attempt to capture the effectiveness and lessons learned from the Roundtable process; an alternative approach adopted by IICD as part of its Country Programme strategy to empower people through ICT-enabled development. The Roundtable process is a way of bringing local actors from a specific sector together to develop and implement their own ICT projects and policies as part of the Country Programme with support and guidance from IICD. Country Programmes are the complete set of ICT-enabled activities in different sectors within a country. Over the last six years, IICD has facilitated Roundtable processes in each of its nine Country Programmes in Burkina Faso, Bolivia, Ecuador, Ghana, Jamaica, Mali, Tanzania, Uganda and Zambia. A Roundtable workshop is usually the first activity to be held at the start of a Country Programme and, as such, represents the first step towards facilitating ICT-enabled development in developing countries. Once a Country Programme is underway, a Roundtable workshop is generally held each time a new sector is added. During the period 1998 to 2003, a total of 22 Roundtable processes were facilitated. They generated ideas for 139 locally owned ICT projects in the health, good governance, education, livelihood opportunities, and environment sectors.

This booklet is the result of an evaluation of the Roundtable process between 1998 to 2003 based on quantitative and qualitative indicators. The findings are relevant for all those involved in facilitating ICT for development initiatives, particularly decision-makers in organisations for development cooperation, local policy-makers, practitioners in organisations working with ICTs for development, and the donor community.

Following an introduction to the concept of ICT-enabled development and an acknowledgement of the growing recognition in development circles of the important role that ICTs can play in Poverty Reduction Strategy Papers<sup>2</sup>, the booklet goes on to describe how the Roundtable process works. The Roundtable process is then placed within the context of the seven guiding principles that guide IICD's holistic approach to ICT-enabled development: Demand-responsiveness; multi-stakeholder involvement; local ownership; capacity development; partnerships; learning by doing; and embedding ICT projects at the sector level. Empirical examples from different countries are also provided throughout the booklet. The main findings of the evaluation of the Roundtable process are then presented, followed by lessons learned and recommendations.

<sup>1</sup> Planned booklets include Country Studies on Bolivia and Tanzania and Sector Studies on Livelihoods and Education.

<sup>2</sup> Document in which a developing country describes national priorities and strategies to reduce poverty.

# Introduction

Information and Communication Technology (ICT) is still a relatively new and unknown tool for development, particularly where poverty alleviation and rural access are concerned. Indeed, the term Information and Communication Technology only came into general use in the 1990s, when it replaced Information Technology (IT) as the generic name for any information or telecommunications system based on micro-electronics. Many people still associate ICTs with e-mail and internet, however, in practice the term covers a wide range of information and communication technologies from telephones, fax machines, photocopiers, and radios, to CD ROMs, e-mail, e-discussion lists, and internet. When applied effectively, ICTs can make a significant impact on alleviating poverty, especially in rural and remote areas, by improving rural communities' access to basic information services and creating new livelihood opportunities. Recent studies have confirmed this. For example, the impact of ICT for development on improving living standards has been documented and analysed in three in-depth country case studies as part of the 2003 Building Digital Opportunities Learning Study<sup>3</sup>.

In 2000, a number of leading development agencies recognised the potential of ICTs and began taking a more pro-active approach to ICT for development. The Building Digital Opportunities initiative, the Global Knowledge Partnership, and the UNDP Human Development Report published in 2001 and entitled 'Making Technologies work for Human Development' have all helped to fuel the debate. In 2002, the Building Digital Opportunities programme, funded jointly by the Canadian International Development Agency; the Danish Ministry of Foreign Affairs; the United Kingdom Department for International Development; the Directorate-General for Development

Cooperation; and the Swiss Agency for Development and Cooperation, actively campaigned for more attention to be given to the issue of ICT-enabled development. Increased interest is also becoming evident among other leading European development agencies, including the Dutch non-governmental organisations (NGOs); the Humanistic Institute for Development Cooperation (Hivos) and the Catholic Organisation for Relief and Development Aid (Cordaid).

Recognizing the potential of ICTs to enhance the quality of life and alleviate poverty, the International Institute for Communication and Development (IICD) was set up in 1997 by the Netherlands Minister for Development Cooperation as an independent non-profit foundation. IICD's mission is to assist developing countries to realise locally owned sustainable development by harnessing the potential of ICTs. The Institute aims to catalyse ICT-enabled development by empowering local people to identify and develop their own ICT sector policy plans, implement pilot projects, and enhance their ICT capacities. It does this by bringing individuals from a variety of backgrounds (non-governmental organisations, the private sector, and government) together to explore ways in which the potential of ICTs can be harnessed to improve one or more different sectors in their country. The programme is supported by IICD and its enabling partners, however, ICT activities, especially the projects, are very much developed by and for local people.

In order to maximise its overall impact, the Country Programme develops a wide range of complementary ICT-activities simultaneously. These include designing a capacity development programme to meet the ICT-training needs of local partners; setting up a national information network to promote knowledge sharing among local ICT for development practitioners; monitoring and evaluation of the activities; and, building a critical mass of ICT projects for one or more key sectors within the country. Different members of the IICD country team work closely with local partners to develop all the activities mentioned above from the bottom up. The programme also tries to act as a catalyst for other ICT initiatives by inspiring local partners to develop other ICT-driven activities independently, based on what they have learned from the Country Programme. The Roundtable workshop is the first formal activity to take place at the beginning of a Country Programme and therefore sets the stage for the programme's future development.



<sup>3</sup> The Building Communications Opportunities (BCO) programme started in 2004 and is supported by CIDA-Canada, DMFA-Denmark, DFID-UK, DGIS-Netherlands and SDC-Switzerland. BCO is a follow-up to the Bridging Digital Opportunities programme 2001-2004.

## How does the Roundtable process work and what are its goals?

By the end of 2003, IICD was facilitating ICT-enabled development in nine countries: Burkina Faso, Bolivia, Ecuador, Ghana, Jamaica, Mali, Tanzania, Uganda and Zambia. The Roundtable process provides Country Programmes with a framework. The Roundtable process is a lineal, step-by-step process geared towards 'empowering people through ICT-enabled development' within five to seven years; the average life span of a Country Programme.

The first step in the Roundtable process involves organising a workshop for local stakeholders from a specific sector such as education or livelihoods. The participants are encouraged to set ICT priorities within their sector and proceed to generate ideas for ICT projects and policies that would help address these priorities. Afterwards, the project ideas are formulated into formal project proposals. After approval, local partners then implement the projects. Throughout this process, a local training partner tries to identify the training needs of the project partners, and develop and implement a series of ICT training courses. This provides partners with the skills they need to carry out their ICT projects. Knowledge sharing activities are also developed to exchange ideas and learn from each other. Finally, throughout this process, monitoring and evaluation activities are carried out to learn and improve from experience. Feedback from participants of all 22 Roundtable processes that have been carried out between 1998 and 2003 has been collated and analysed. Many of the findings have been used to fine tune the Roundtable process so that it can respond better to the needs of end users in other Country Programmes.

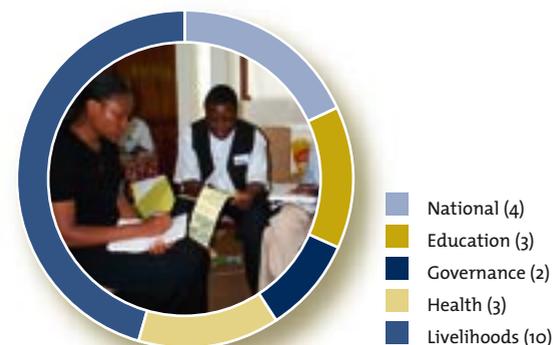
### The Roundtable Process is a lineal, step-by-step process that involves:

- Organising a Roundtable workshop
- Generating ideas for ICT projects and policies
- Project formulation and implementation
- Capacity development
- Networking and knowledge sharing
- Monitoring and evaluation

### Organising a Roundtable workshop

The first phase of a Country Programme begins with organising a 'Roundtable workshop'. Its purpose is to bring a broad cross-section of local stakeholders from one specific sector, such as education or health, to the table to identify ways in which ICT applications can be used to remove existing bottlenecks within their sector or improve current practices. The workshops are organised at the request of, and in collaboration with, a small committee of local organisations representing the key stakeholder groups in a given sector. Around 40 participants from 15 local organisations from government, private sector, and civil society organisations are usually invited. We have discovered that, for many of these organisations, the Roundtable meeting is the first opportunity they have had to meet and share their experiences and observations with other key players from their sector.

Table 1: Roundtable workshops 1998-2003



### Generating ideas for ICT projects and policies

During the Roundtable workshop, participants identify priority areas in their sector and reflect them in ideas for ICT policies and projects. To bring all participants to the same starting level, a reference report is produced on the current status of ICT policies and projects in the chosen sector and distributed among the invitees well in advance of the Roundtable workshop. During the workshop, the participants use 'scenario development' to determine the future of the sector in question. The participants begin by discussing their hopes and fears for the development of the country or sector and try to identify the key driving forces that will spur on the country's or sector's development in the

next 10 to 20 years. The driving forces set the stage for the development of a series of scenarios for the future of the country or sector by the participants. This facilitates a more focused discussion on priority areas where ICT could provide most leverage for the development of the country or sector. A series of ICT opportunities are then identified for each priority area.

At the next stage of the Roundtable workshop participants produce project ideas and policies, listing the key objectives of the project and the local organisation responsible for developing the proposal further. So far, a number of ICT sector policies have been identified as possible 'project ideas' to be part of the portfolio. For example, the 'ICT Policy for Health' project in Ghana.

### Project formulation and implementation

After the Roundtable workshop, the project owners turn the project ideas generated at the meeting into formal project proposals. The project proposals are then submitted to IICD through an IICD-developed project format, which is best described as a feasibility study. IICD staff and local consultants offer support with regard to formulating the technical and financial details of the project. Experience gained in formulating ICT projects often enhances local project partners' abilities to formulate other large scale or new ICT projects in future.

Each project proposal must pay explicit attention to the project's relevance to development and the institutional capacity required to implement it. The technical feasibility of the project – in terms of the available human resources and infrastructure – should also be considered. Finally, the financial sustainability of a project also has to be examined: ways to sustain the project through, for example, revenues from information services provided to the end users, must be explored thoroughly. The

Between 1998 - 2003, IICD facilitated 22 Roundtable workshops that each attracted around 40 participants. The workshops were either 'national' (multi-sector) or had a sectoral focus: livelihood opportunities (particularly in the agricultural sector), education, good governance, and health. The workshops helped local partner organisations generate ideas for 139 ICT projects and policy strategies, of which 65 have already resulted in concrete projects while another 35 will be implemented soon.

**Table 2: Projects per stakeholder group**



possibilities of obtaining complementary funding from the government, development banks, or other sponsors should also be assessed.

During the project implementation phase, local consultants and IICD assist partners to embed their ICT projects at the organisational level, in order to make them an integral part of their own organisation's core activities. We have learned that projects are more likely to succeed if the directors of participating organisations are also invited to take part in the Roundtable process, together with those employees who are likely to be in charge of implementing the ICT projects emanating from the Roundtable workshop. Top management's buy-in to a project being carried out by staff within its organisation is vital in this respect. On another level, IICD helps organisations to mainstream projects into Sector-Wide Approaches (SWAs)<sup>4</sup> implemented by government with support from the bi-lateral and multilateral donor community. This helps to preserve a project's impact on a particular sector, long after the project itself has ended.

<sup>4</sup> A SWAp is a process, developed in the mid-1990s, in which sector funding, whether internally sourced or provided by donors, supports a single policy and expenditure programme, under government leadership, and which adopts a common approach to implementation and management across the sector as a whole. Land, T. and V. Hauck. 2003. Building coherence between sector reforms and decentralisation: do SWAs provide the missing link? (ECDPM Discussion Paper No. 49). Maastricht, the Netherlands: ECDPM.

## Experiences from an ICT Roundtable workshop in Ecuador

In June 2003, 31 highly diverse organisations - non-governmental organisations (NGOs), grass-roots organisations, and government agencies - gathered in Ecuador to discuss the use of ICTs in sustainable management of production and marketing systems. The participants engaged in a scenario development process that aimed to generate awareness of potentially critical information areas for the producer and help those present identify project ideas in each of these areas. In addition, the organisations also expected to learn from their experience, enhance their knowledge of issues such as the demand for and supply of information, and strengthen areas of collaboration with one another. It was against this backdrop that we also tried to identify strategies that would allow producers to influence sector policies. Throughout this process, the Comité Ecuménico de Proyectos and IICD operated as organisers and facilitators.

The workshop was set up as a series of steps in the form of questions with the following results:

### Step 1 What are the urgent issues currently faced by producers?

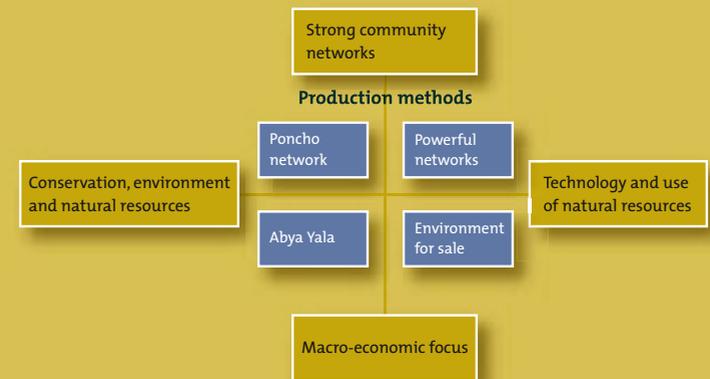
Assisted by a base-line study on the strengths and weaknesses of the sector, the participants identified three major challenges: difficult market access, insecure land property rights and speculation, and a lack of small-scale credit facilities in rural areas. This situation is further compounded by the fact that current production is strongly driven by international economics and fails to consider the importance of indigenous knowledge.

### Step 2 What are leading external forces affecting the sector?

External forces are forces that can not be influenced by the producers and define to a large extent the future of the sector. The participants identified a strong local orientation versus a macro-economic perspective on society level. Another key force is the dominant focus on technology and use of natural resources versus a focus on the conservation of resources.

### Step 3 Can we develop possible scenarios for the future of sustainable production?

Each scenario describes a possible future reality in which the producer has to operate, taking the external forces as a starting point. The scenarios assist in the later selection of key challenges and opportunities that producers face in a rapidly changing world on the longer term. Taking these scenarios into account can also make the selection and definition of the projects more robust, enabling them to be sustainable even in difficult circumstances. In one of the scenarios presented, the national authorities are principally commercially driven, selling natural resources as commodities to foreign parties in the 'Environment for Sale' scenario. This realistic scenario calls for ICT projects that take into account the fact that sustainable production may be more difficult to support. In this world, sharing information with external markets may be easy, but the lack of community networks will limit the exercise so that the information will only reach producers at the local level. In another scenario, Latin America is transformed into a single nation 'Abya Yala', and is able to confront its developed northern neighbours. Indigenous production technologies are applied and natural resources are protected. In this scenario, the enabling environment for ICT initiatives focusing on sustainable production is much more supporting. At the same time, the national exchange of information may be limited and ICTs would be less developed.



**Step 4 In which of the thematic areas does information play a critical role for the producer?**

The participants highlighted market access, credit, land organisation, rights and policies, and the production chains and technologies as areas in which information can have the strongest added value.

**Step 5 What are possible ICT project ideas?**

A series of ICT project ideas were identified and developed in more detail in each of the selected areas: As an example in the area of land policies, the NGO C-CONDEM presented a project idea that strengthens communication systems enabling stakeholders to make better use of and even recuperate natural resources in the regions with mangroves and to influence national policies affecting the mangrove areas. The target groups of this project included communities, producer associations, environmentalists, and local governments. Another project idea focussed on the coordination and democratisation of market information supported by a national central information point linked to local information nodes. In this project, the Ministry of Agriculture would develop the central information point while NGOs FEPP, CAMARI and CEDIME would develop local information exchange points.

The workshop represents the first of five phases in the Roundtable process that will further include project identification, formulation and implementation, capacity development and knowledge sharing. Since the workshop, the participating organisations have started to formulate project ideas on an individual basis or in joint collaboration with one another. At this moment, two projects are fully formulated and start implementation in 2004. Four other projects are in the final stages of the formulation process.

From this workshop process the participants and IICD have drawn the following lessons:

- **Bringing together multiple stakeholders:** The workshop brought together a highly diverse group of organisations, ranging from small producer associations, indigenous people, and NGOs, to micro-credit institutions and ministries. As in other workshops, many of the organisations present had never before been together in a workshop where they were asked to identify shared problems and priorities. Occasionally, different viewpoints

produced considerable tensions between participants and this made the discussions difficult at times. Nevertheless, it allowed organisations to exchange new insights and experiences and enabled them to explore possible areas of future collaboration and specialisation.

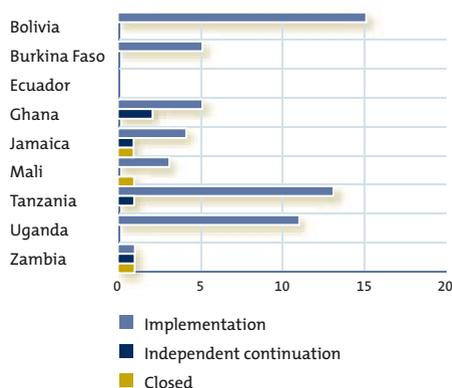
- **Applying a guided process:** To ensure concrete end results, the workshop adheres to a rather strict step-by-step process guided by the facilitators. During the workshop, many participants stated that they felt pushed into a particular direction. Flexibility can be gained by opening up space for participants to discuss pressing issues outside the scope of the workshop.
- **Focus on ICT:** Many of the organisations present had little or no experience with ICTs. Consequently, the majority of the participants were initially concerned that the workshop would focus mainly on technology. This issue can be mitigated by taking time to clarify the use of ICT as an instrument rather than a goal and by discussing the three main components of ICT: Information, Communication and Technology.
- **The workshop as part of a Roundtable process:** Many participants indicated that it was often only in retrospect, for example when they were working with IICD on areas such as project formulation and capacity development, that they began to fully appreciate the added value that the Roundtable workshop brought to the process.

*'The Roundtable gave us an insight into what others are doing and planning to do and where we can find synergies.'*

*Participant from the Ministry of Agriculture.*



**Table 3: Projects per country**



By the end of 2003, the Roundtable process had produced 65 ICT projects out of a total of 139 project ideas. Five of these projects are now continuing independently of IICD. Another 35 projects are expected to be implemented in 2004. The fall-out rate of 35% of the project ideas presented at the Roundtable workshops cannot yet be accounted for although one possible explanation is that the initial enthusiasm for a project idea can fade when the workshop is over. This becomes apparent two to three months after the workshop, when project partners are required to develop their project idea further and present a draft proposal. A cooling off period such as this indicates whether or not a project partner is willing to assume ownership of a project idea by developing it into a concrete project proposal. For this reason, only local partners that present draft project proposals after the Roundtable process are eligible for further assistance. This investment in time and effort ensures that partners assume ownership of the project at an early stage of the process. Nevertheless, the fall-out rate is still high and unevenly distributed over the countries and workshops. Other factors may be at work, however, in order to confirm this an in-depth analysis would be necessary.

Of the 65 projects launched since 1998, only 3 have ceased operating due to a lack of local ownership or funds. This fall-out rate is minimal when compared to regular failures of ICT projects in both developing and developed countries. It also indicates that the majority of the project partners have a strong will to succeed.

The projects include pilot and policy projects in agriculture, education, governance, health, and the environment. At the same time, ICT policies are being supported in the

health sector in Ghana, in the agricultural sector in Bolivia, and in the education sector in Zambia, Tanzania, and Uganda. Although most of the stakeholder groups are represented during the Roundtable process, the majority of projects implemented tend to be owned by NGOs and grass-roots organisations. A few are owned by government and private sector organisations.

### Capacity development

Developing ICT projects in a vacuum is not enough; in order to implement them effectively, local organisations must have the right technical skills and ICT know-how. Devising a comprehensive capacity development programme with a training partner in each of the countries is therefore an integral part of every Roundtable process. Training partners identified by IICD so far tend to be private sector companies or educational establishments. They are usually approached during the first Roundtable workshop. It is the training partner's responsibility to identify local ICT knowledge gaps, especially among the project partners, and then develop and implement a training programme to fill them. However, it cannot be assumed that the training partner will either have sufficient institutional capacity or the appropriate technical skills to accomplish this task. Consequently, IICD is also equipped to provide institutional support to its training partners in the form of instruction on the latest Train-the-Trainer methodologies, expertise training, International Computer Driving Licence (ICDL) certification, and in some cases limited equipment support.

Table 4: Institutional support to local training partners				
Country	Training of trainers (persons)	Expertise training (persons)	Equipment support (institutions)	Certification (institutions)
Bolivia	1	0	1	0
Burkina	6	2	1	2
Ecuador	2	0	0	0
Ghana	4	0	0	1
Jamaica	9	0	0	2
Mali	6	4	0	1
Tanzania	56	0	0	3
Uganda	6	6	0	2
Zambia	2	2	1	1
<b>Total</b>	<b>92</b>	<b>14</b>	<b>3</b>	<b>12</b>

## Providing local organisations with the skills they need to implement their own ICT projects

### Lessons from a Life Long Learning workshop in Mali

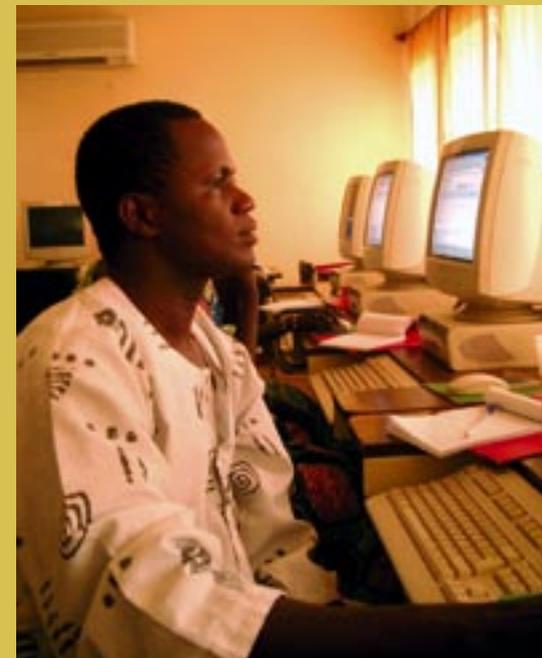
In January 2004, a Roundtable workshop on livelihoods (agriculture) in Ségou, Mali enabled five local organisations to develop a number of rudimentary ICT project ideas. However, as none of the organisations had sufficient experience with ICTs, IICD and its training partner, REONET, decided to hold a 4-day basic computer skills workshop in February 2004 for staff members from each of the organisations to help them get the projects off the ground. Fourteen people (8 men and 6 women) took part. During the workshop, key concepts regarding computer hardware (mouse, keyboard, main components of a computer), software and basic applications (Windows, Word, e-mail, internet browsing) were addressed;

A basic knowledge and mastery of computer functions is a prerequisite for the more conceptual Life Long Learning (LLL) workshop, which always takes place during project formulation after a Roundtable. Each LLL workshop has four goals:

- To enhance self-learning skills (using computer based training CD ROMs, searching the internet, etc.)
- To enhance the quality of project formulation (using peer review methodologies, information flow analysis, needs assessment methodologies, etc.)
- To further enhance basic computer skills and insights in ICT opportunities through prototyping (small groups work on an application related to their project idea, for example a database, a PowerPoint presentation, or a website)
- To stimulate knowledge sharing between the project partners

In April 2004, following on from the basic computer skills workshop, a Life Long Learning workshop was held in Bamako. Eleven participants from four organisations took part, including four women. Despite having few computer skills at the start of the workshop, by the end of the 4-day course each project group had learned how to use CD ROMs with training and literature resources, had performed extensive internet searches, and was able to present a further developed project idea using PowerPoint and discuss the idea with other participants.

Participants with the least computer experience and those who had had misgivings about their own abilities at the beginning felt greatly empowered by the workshop (6 out of 11 participants, 3 women and 3 men actually stated at the end of the session that they had never thought that they would make so much progress in just a few days). All participants displayed the motivation and confidence to further develop their personal computer skills and the project proposals. A one-day restitution workshop was held 8 weeks later, during which all participants were given the opportunity to present the work they had accomplished in the meantime. During this period, it is essential that the training partner regularly keeps in touch with the participants in order to monitor the progress and to address potential obstacles. In the case of Mali, one of the hurdles appeared to be the lack of computers in the office of the project organisations. This meant that participants were unable to make any significant progress with regard to improving their technical skills. Conceptually though, all groups did further develop their project ideas.



The methodology is strongly based on continuous learning, project-based training, and Train-the-Trainer approaches. Training partners from different countries are also given the opportunity to meet each other and share their experiences during the annual Train-the-Trainer meeting for IICD's training partners. This type of south-south knowledge exchange is actively encouraged by IICD. Training partners from the Ecuador Country Programme, for example, recently met up with their counterparts from the Bolivia Country Programme. As a result, the Ecuadorian training partners were offered the use of ICT training modules already developed by the Bolivian training partner under the Bolivia Country Programme. This is an example of how knowledge exchange can help local partners avoid reinventing the wheel. At this moment, IICD is collaborating with 20 training partners; it usually has two to three training partners in each country.

The training partners are responsible for developing local institutional capacity and upgrading the technical skills of local project partners by providing Life Long Learning courses, On-the-Job Training, and Technical Update Seminars. Project partners are also required to attend basic ICT awareness seminars throughout the project formulation phase as well as technical seminars to help them keep abreast of the latest technological developments (for example, Open Source, XML) and sector issues (ICT for agriculture). More specific ICT skills are provided through longer training courses, including information management, web and database development, multimedia, networking, and computer maintenance. The training provided to project partners and other ICT stakeholders is very much hands-on and focuses on specific project-related skills and knowledge. Table 5 indicates the training provided to project partners and other ICT stakeholders in 2003.



Table 5: Training to project partners and other ICT stakeholders			
Country	Life Long Learning (courses)	On the Job Training (courses)	Technical Update Seminars
Bolivia	0	10	0
Burkina	1	2	2
Ecuador	1	0	0
Ghana	1	8	4
Jamaica	0	4	4
Mali	0	6	4
Tanzania	0	16	11
Uganda	2	13	3
Zambia	1	4	3
Events	6	63	31
Participants *	90	945	1240

\* Average number of participants: Life Long Learning 15, On the Job Training 15, Technical Update Seminar 40

### Networking and knowledge sharing

Over the years, it was found that partner organisations tended to formulate and implement their ICT projects in isolation. A networking and knowledge sharing mechanism was therefore needed through which they could exchange knowledge with others in their sector in order to find effective and timely solutions to any strategic problems and operational bottlenecks that were posing a threat to their projects. Information networks were subsequently set up as part of the Roundtable process to enable local partners, and others interested in ICT for development, to network, organise other knowledge sharing activities such as workshops and seminars, and raise national awareness about the benefits of ICT-enabled development in general.

The network is strongly linked to the Roundtable process. It is usually formed with IICD support after the first Roundtable workshop, early in the project cycle. The network enables partners to continue to draw on each others' experience as they implement their projects. Today, typical network activities include setting up a website, publishing a newsletter, and organising events where members can find out about emerging ICT issues, profile their projects, and share lessons learned. These events are often covered in the local and national media. Although they are initiated and financed by IICD, the networks are self-organised; the topics addressed reflect the group's needs and interests, ranging from technical issues to national ICT policy.



While IICD's project and training partners form the core of the network in each country, it is by no means limited exclusively to local organisations that are linked in some way or another to IICD's programmes. In several countries the information network has developed into a vibrant national forum for dialogue among people using ICTs in health, education, and other key development sectors, including policy-makers, journalists, and members of the business community. This ensures that the energy generated in the Roundtable process does not dissipate. In fact, thanks to networking, the process of collective visioning about the possibilities of ICT for locally-owned development has the potential to echo more broadly through society at large. In more pragmatic terms, the partners may find within the network people who can help to ensure the sustainability of their projects by providing not just friendly advice, but also funding, visibility, and political support. Although they have only been in place for a few years, the IN networks have helped lay the groundwork for further Roundtables by identifying priority sectors, organising workshops, and carrying out baseline research.

#### Monitoring and evaluation

Together with our partners we are looking for ways to improve our activities. To do so, we need to monitor and evaluate the impact of each Country Programme's activities on the ground and be open about the failures as well as the successes that we have experienced along the way. For this reason, IICD has set up a participatory, self-learning and continuous monitoring and evaluation system. The system is based on two pillars: collecting quantitative data through questionnaires; and discussions in biannual focus group meetings. Questionnaires are regularly being filled out by the end-users of the projects, the project team, and participants of the training sessions. An evaluation partner from the country then analyses the outcome of the questionnaires and

organises a focus group meeting. During this meeting, all partners involved discuss the evaluation results and look for improvements and solutions together. Through this system, we are able to evaluate the satisfaction and development impact of the Country Programme activities, as well as IICD's overall effectiveness.

In addition to this monitoring and evaluation methodology, IICD and its partners are also making use of 'Output-to-Purpose Reviews' carried out on the projects. Each review focuses on the progress of the original objectives of a project, its purpose, and the links between its Outputs and Purpose. In this way, a review provides support to the project at any given stage, helps to redefine the project's direction, and if necessary helps to modify the document containing the project partner's original formal description of the project.

## Are the 'Outputs' still serving the 'Purpose'?

### Findings of an Output-to-Purpose Review on TicBolivia.net; Bolivia's national Information Network

A newsletter, a website, regular press releases, lobbying in public for ICT policies; TicBolivia.net – the Information Network in Bolivia – is an example of a very active network. Nevertheless, partners taking part in this network did not feel that the network was entirely meeting their needs: What are we doing with these knowledge products? What are the roles and responsibilities of the people in the network? These were just some of the questions raised.

To answer questions such as these, TicBolivia.net decided to conduct an Output-to-Purpose Review to assess their own situation, and check to see whether they were still heading in the right direction with their activities. A consultant coordinated the review, which included a desk study, group meetings, and individual interviews with involved partners. A review is not intended to precipitate a total shift in thinking within a project, but – in this case – it certainly helped the network members define a new set of priorities, and become more involved again.

Lessons learned from this review:

- Active involvement of all members in the identification of needs and priorities is a key success factor.
- There is a need to put in place a good method to systematise project partners' experiences, thereby improving the quality of the local content. The network coordinator will now take the lead in finding a suitable system to implement this.
- The financial sustainability of the network is complex and should receive more attention. The financial capacity of local stakeholders is rather weak, and the current political situation in Bolivia very fragile: this weakens co-financing options. To tackle these challenges, network members will develop a co-financing strategy and introduce the principle of cost-recovery for publicity products among members.

## Measuring the results

Demand-responsiveness; multi-stakeholder involvement; local ownership; capacity development; partnerships; learning by doing; and embedding ICT projects at the sector level. These are the seven principles upon which IICD's Country Programmes are built; principles that are closely linked to the criteria followed by the development community. Yet how demand-responsive is the Roundtable process? What is the level of multi-stakeholder involvement in the Roundtable workshop? And to what extent do partners take ownership of their projects, along with other activities carried out under the Roundtable process, such as knowledge sharing and capacity development?

To find answers to the above and evaluate the overall effectiveness of the Roundtable process, IICD developed an evaluation system using online questionnaires as a basis. To date, these questionnaires have provided feedback from over 2280 individuals representing our southern partners in all nine Country Programmes. The online questionnaires were developed in collaboration with IICD's partners in Tanzania and Ghana in 2000. Over the past four years, these questionnaires have been regularly updated in response to comments and suggestions made by partners from the other countries.

Data was collected over a 12-month period between 2002 and 2003 and analysed using standard statistical methods by IICD's Monitoring and Evaluation partner in each country. Participants rated different activities with a score from 1 to 100. Scores above 50 represented a positive evaluation by participants. The results of the questionnaires were then presented and discussed in biannual Focus Group Meetings with all partner organisations in the country. These meetings provided qualitative feedback, facilitated a discussion on the results, and offered suggestions for possible direct improvements to the process that could be implemented by the local partners. In addition, IICD was advised on adjustments to the Roundtable process. Each year, the recommendations were incorporated into IICD's year plan.

So what did the findings reveal? Do the Roundtable participants feel that they have been adequately briefed beforehand about the aim of the Roundtable workshop and its expected results? Do they feel sufficiently involved in the workshop discussions? How far are the participants' needs and priorities met as a result of the Roundtable process? Are partners given enough assistance and support throughout the Roundtable process? Is there a good age and gender balance at the workshop discussions? And how far are the seven principles reflected in the Roundtable process? These were just some of the questions asked during the Roundtable evaluation process.

### Demand-responsiveness

By involving end users, such as teachers, policy-makers, indigenous people, or small farmers throughout the Roundtable process IICD ensures that the ICT activities are kept close to the 'market', thereby remaining relevant and demand-responsive. This bottom-up approach is reflected in the Roundtable workshop. From the outset, participants are required to identify key issues of concern within their own sector and then develop their own ICT priorities and policies to address them. During this process, ideas for ICT-enabled projects are also put forward. To ensure that ICT is applied to achieve development objectives it is important that the process put in place focuses on the needs and problems of the stakeholders from the very beginning.

Demand-responsiveness; multi-stakeholder involvement; local ownership; capacity development; partnerships; learning by doing; and embedding ICT projects at the sector level. How far does the Roundtable process reflect the seven principles upon which IICD's Country Programmes are built?

Identifying end user needs takes place during two key phases of a Country Programme; during the Roundtable workshop, and after the workshop when partners further develop their project ideas. At the workshop, needs are articulated by analysing the key challenges faced by participants in their efforts to develop sector activities for end user groups, especially the rural poor. For example, in the case of Ecuador illustrated on page



10, the key objective of the workshop was to set ICT priorities, projects and policies from the perspective of small farmers and producers in the agricultural sector. To ensure that needs and priorities are found at the sector level, the stakeholders identify problems, needs and priorities as a group rather than the needs of individual organisations. The majority of participants (82%) taking part in Roundtable workshops between 1998 and 2003 confirmed that the workshop methodology helped to address their needs.

During this process, it is assumed that the participating organisations are able to articulate the needs of the end users; for example, students in the case of education. However, there are no guarantees that partners are fully aware of whether or not the project proposed will effectively address the needs of their particular target group. It has also been found that enabling the end users to participate in the initial identification phase is not effective as this tends to result in an articulation of individual needs rather than sector-based priorities. The partners did find that including end users in the early phase of formulating the projects is necessary in order to align the objectives and participation of end users at the project level. As a result, IICD has promoted and assisted partners in the introduction of various needs-assessment methods during project formulation.

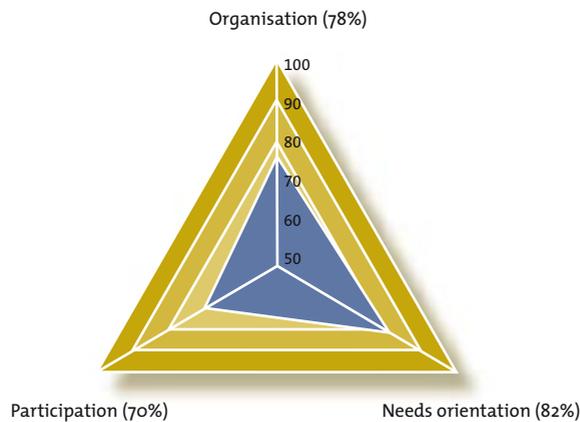
### Multi-stakeholder involvement

Innovation and development requires multi-stakeholder involvement, particularly when it concerns planning activities in uncharted terrain such as ICT-enabled development. Public, private, and non-profit actors are therefore involved in the identification, formulation and implementation of ICT activities. Throughout the Roundtable process IICD strives to maintain a balance among its participating partners and pushes for approaches that safeguard open and full participation to avoid situations where stronger partners dominate or manipulate the process. For example, a dominant presence of high-ranking officials and government dignitaries can be intimidating for some groups and may prevent them from expressing their views.

When the right balance is achieved, multi-stakeholder involvement helps to achieve a more accurate and insightful assessment of the ICT needs of a particular sector. The broader the base of stakeholders, the more detailed the picture becomes as each one contributes his or her own unique experiences and knowledge of the sector to the discussion. Participation by government representatives is key because they are the major players in terms of policy-making and funding in most development sectors. Their involvement in the Roundtable process therefore increases the likelihood of projects being embedded into mainstream sectoral practice at a later date.

The national development priorities set out by the government do not always represent the development needs as observed by the private sector and NGOs. In many cases, grass-roots organisations and NGOs are better situated when it comes to considering the needs of the poor. Therefore, the majority of the organisations attending the workshops tend to be NGOs and grass-roots organisations. Consequently, they also develop and implement most of the projects. Another good reason to work closely with NGOs and grass-roots organisations is that they are more inclined to assume ownership of their projects and are better placed to formulate and implement their own ICT projects. Unlike governments, they are much less restricted by politics, bureaucratic procedures, and institutional changes. Free from these obstacles, they are better placed to develop ICT projects quickly and effectively and, in the long term, a critical mass of ICT projects and activities is more likely to make an impact on a given sector and thereby influence government and the international community.

**Table 6: Effectiveness Roundtable workshops**



The private sector, particularly business entrepreneurs, and universities, tend to be strong players when it comes to technical experience and knowledge. ICT specialists are also encouraged to participate as they provide useful input based on their own experience and knowledge about which technical applications are feasible and which are not. Yet, to avoid a supply driven approach, they should not dominate the discussions. This is reflected in the limited participation (24%) of ICT specialists. In particular, the private sector makes a key contribution to the Roundtable process

in the form of locally-based advisory services, capacity development activities, and in the delivery of infrastructure and hardware to support projects during the implementation phase. In practice, private sector organisations have been less successful in implementing the projects due to a limited understanding of how to address the needs of and work with lower income beneficiaries.

To ensure that local priorities prevail, the participants must be living and working in the country. Representatives from foreign organisations are welcome as observers. They cannot, however, actively participate in the Roundtable workshop.

The Roundtable workshops also try to maintain a healthy balance in terms of gender and age. Both women and men and the older and younger generations are expected to have a differentiated vision on ICT and development, which stimulates any discussion about the relevance of ICT as well as its priorities. In this respect, the Roundtable process can certainly be improved as only 30% of participants were below 30 years of age and only 27% of the Roundtable workshop participants were women.

Aside from the issue of representation, it is important that the process applied to the workshop is perceived by all those taking part as participatory. Too often, stakeholders are invited to events without having any real influence on either the process or outcomes. IICD therefore strives to ensure that all participants in the Roundtable process, irrespective of their age, gender, or organisational affiliation, are made to feel that their opinion is of value and that they too can influence the outcome of the workshop. Evaluation results indicate that 70% of workshop participants had a strong feeling of participation.



Another positive indicator concerns the attention to detail that goes into planning and organising the Roundtable workshop. In general, many other conferences fail to produce the expected results because the participants are not adequately informed about the objectives or the meeting beforehand, or arrive with expectations that cannot be met. Consequently, the organisation of the workshop itself, including facilitation and the facilities provided, can also affect the end result. Good facilitation ensures open and valuable discussions, priority setting, and decision-making. So far, 78% of all Roundtable workshop participants have been positive about how the IICD-supported workshops were organised.

**Local ownership**

Locally owned ICT projects are the cornerstone of each Country Programme. The premise behind this principle is that projects are more likely to succeed in the long term if they are locally owned. Also, by empowering organisations to develop and implement their own ICT projects, they are more likely to go on to develop other ICT initiatives independently when the Country Programme comes to an end. Therefore, during the Roundtable process, it is made clear to participating organisations that IICD’s role is essentially one of a facilitator and adviser and that ultimately responsibility for developing, implementing, and running any ICT projects that result from the Roundtable workshops lies with them. This is another reason why the Roundtable process is so important: it is vital that local organisations identify and develop their own project ideas in response to the key areas of concern within their sector. Thanks to this approach, a number of IICD-supported projects are now fully embedded at the sector level.

**Providing direct and indirect assistance**

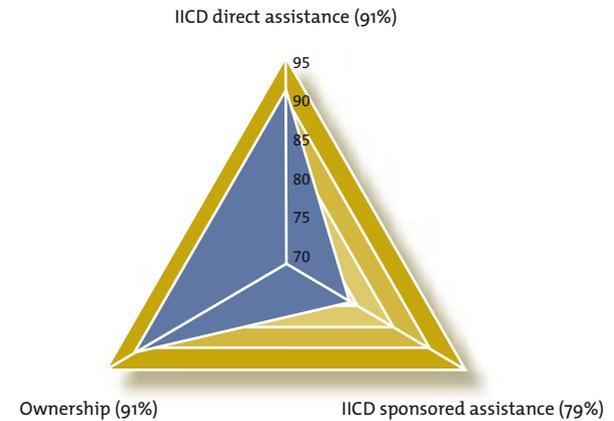
Ownership is only feasible when project partners have the right technical skills to develop and implement their own ICT-enabled projects. Developing the technical skills of local partners is therefore an integral part of each Roundtable process. To achieve this, IICD limits its role to providing direct assistance in the form of coaching and expert advice. IICD also sponsors training executed by Southern training institutions and specialised advisory services provided by a combination of Southern and Northern consultants. The partners rate their level of satisfaction with the direct assistance provided by IICD during the formulation phase at 91% and sponsored assistance at 79%.

**Involving top decision-makers**

Experience has taught us that it is not enough for one or two individuals within an organisation to champion a project; obtaining the support and commitment from the top decision-makers within the organisation is vital. Failing to do this has jeopardised projects in the past, particularly when the individuals driving the project in question leave the partner organisation. Internal resistance to the project within the partner organisation, which is often the case in a new field such as ICT, is another factor that has to be considered.



**Table 7: Effectiveness project formulation assistance**



### Involving end users

Finally, ownership requires a fully participatory approach, one that involves all the team members. End users too should be taken into account. With the slogan: 'an information system is only a success if it has users', IICD has adopted a strategic approach towards involving end users at the grass-roots level by making sure that the projects are based on their actual, rather than perceived, needs. The consultation and validation activities carried out with the users as part of this process also contribute highly to their feeling of ownership. The evaluation results from project partners indicate that the Roundtable process produced a high ownership rating among the project teams engaged in formulating project and policy ideas as a result of the Roundtable workshop. However, it should also be stated that, within the last two years in particular, the number of end users has increased considerably. With a rating of 91%, the ownership aspect of the Roundtable process is the highest rated element.

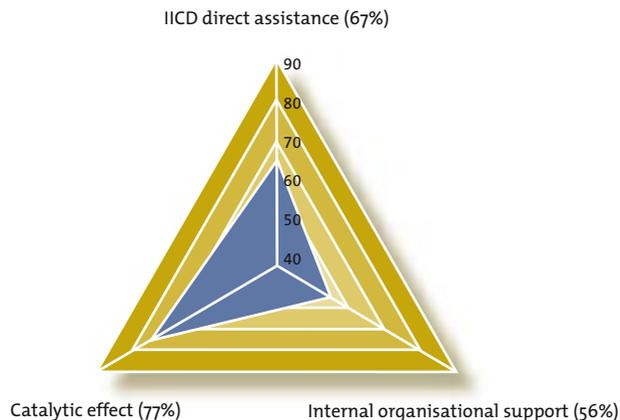
### Common problems with locally owned ICT projects

Partners sometimes run into difficulties when they try to turn a project idea into a formal project proposal. However, these are minor problems when compared to some of the obstacles encountered by project partners when they start to implement their project. One common problem is time: partners often report that the projects take far more time to implement than they initially planned. In many cases this is explained by over-ambitious plans. When it comes to the point of implementing their project,

project partners often face unforeseen technical problems and internal resistance to change. Although not yet studied in detail, it is assumed that this is related to the innovative and pervasive character of ICT undertakings. ICTs are often intrinsically linked to the flow of information to and from an organisation, or to and from an individual. Particularly in the first context, this requires a radical change in mindset at the managerial level.

Another obstacle is poor allocation of human and physical resources. Even when resources were formally allocated, a considerable number of organisations have difficulties freeing up sufficient human resources due to the multiple tasks of staff members. Many partners are not used to spending either time or budget resources on capacity development, which is a necessary requirement for the successful implementation of a new tool such as ICT. This explains the low rating given by the project teams for internal organisational support. In these circumstances, project partners often turn to IICD for a solution, which partly explains the lower rate of satisfaction expressed with the level of assistance provided by IICD in the implementation phase. However, these ratings improved in 2004 as a result of a better management of expectations, more careful planning, and a strong involvement of decision-makers from the project partner organisations in the project formulation and implementation process.

**Table 8: Effectiveness project implementation assistance**



### Country variations

One interesting result is the difference observed between countries. Internal support among partner organisations for locally owned ICT projects was found to be higher in Bolivia than in Tanzania, possibly reflecting the different capacities and organisation level of intermediary organisations. Yet, these differences require deeper analysis to draw firm conclusions.

### Balance between local and foreign organisations

One important discussion in the development processes centres on achieving the optimal balance in the roles of foreign and local organisations that assist in the introduction of ICT for development. It was generally found that extensive assistance is required to provide the necessary knowledge and competences to identify, formulate and implement ICT initiatives. However, this is natural as it is a new phenomenon in the local context.

A key role for foreign institutions, in casu IICD, is that of facilitation. Facilitation includes the brokerage between stakeholders, consultants, donor agencies and other players in the market. This implies that the institute does not interfere in priorities or

the actual content of the policies and projects. It is expected that in this way, the institute will not become a party to local decisions and will be able to maintain its independent role as facilitator.

### Capacity development

Locally owned projects are only feasible if partners have the right technical skills to develop and run them independently. Herein lies the role for IICD's capacity development programme. Developing the technical skills of local institutions and project partners empowers them to carry out their own ICT projects under the guidance of the Country Programme. Their newly acquired technical know-how will empower them to continue to develop their own ICT-driven projects independently at a later date.

The first Roundtable process in a country presents an excellent opportunity to identify a training partner, usually a private company or local educational institute, that can work closely with IICD to develop a capacity development programme specifically geared towards addressing local ICT training needs. Collaboration with local providers is assumed to be the best option. The main advantages are that they are used to working in the specific local situation and understand the opportunities and limitations therein. They are, moreover, more regularly available for advice and training. Capacity development is rated higher in cases where IICD has invested in enhancing the quality and capacity of training partners by providing training methodologies, needs assessments, and train-the-trainer interventions. More problems are encountered in the area of selecting professional and high-quality local consultants to assist in providing technical advice. Here, the aim is to set up pools of qualified local consultants in collaboration with project partners. Advice from foreign consultants such as Cap Gemini Ernst & Young has provided added value in specialised areas and in the case of short-term interventions.

### Partnerships

Joining with other organisations is the only feasible way for IICD to fulfil its mission. Consequently, IICD works with a wide variety of local partners from different backgrounds, including public, private, and NGOs. Many are agents of change that work with and for poor people. Responding to real local demands, they devise and implement suitable development and poverty-reducing interventions, including uses of ICTs. They are the owners of the activities that IICD supports. IICD strengthens the ability of these partners to understand and apply ICTs for development. Beyond and behind these partners, various enabling partners from the private, public or non-profit sector, share

expertise and contribute financial resources to help ensure that local activities are sustainable.

IICD seeks out and continuously develops partnerships with a broad range of organisations, including private consultants, national telecom providers, grass-roots NGOs, and international donor agencies. The benefits they bring to different aspects of the Roundtable process can come in the form of knowledge, training expertise, or funding. Developing strategic alliances with likeminded organisations from the ICT sector in this way helps to enhance the sustainability of individual projects and the Country Programme as a whole. It also avoids duplication of efforts, facilitates knowledge exchange (especially with regard to best practices and lessons learned), and strengthens the ability of partners to raise national awareness and lobby on behalf of ICT-enabled development. Relationships with both local partners and partners in developed countries are characterised by the intention of establishing strategic alliances and collaborating on joint ventures. Partnerships can also hail from unexpected quarters. For example, Transredes, a gas pipeline operating company in Bolivia recently pledged to donate second-hand computers to project partners in Bolivia to help them replace and expand equipment in rural information centres. The first batch of thirty computers is expected to arrive shortly. This type of alliance and pledge of support from a diverse array of local and international organisations gives the Roundtable process an added impetus.

Partnerships require a strong inter-dependent relationship and shared responsibility for the activities undertaken. Examples in this area include the partnership with the Dutch NGOs, Cordaid and Hivos, to develop joint ICT for development programmes with their partners. Apart from co-funding, this partnership was also set up to benefit from the long-term experience of the NGOs in developing the organisational capacities of their



partner organisations in the South. IICD brings its experience with ICT to the partnership. The collaboration has resulted in a valuable combination of strong partners and effective use of ICTs in Bolivia, Tanzania and Uganda.

Working with a broad cross-section of organisations has a number of advantages. For example, IICD often collaborates with small and medium-sized companies in the development of the ICT capacity development programme delivered to project partners. The advantage of working with private companies is their professional approach combined with up-to-date ICT knowledge, which is much less readily available in other organisations. Thanks to these partnerships, partners are able to develop their internal capacity to design and implement ICT-enabled programmes.

Where ICT expertise is lacking in the countries, IICD has set up partnerships with international ICT consultancy firms such as Cap Gemini and Atos Origin. Their advanced levels of knowledge and client-oriented approach have proved to be of great value to local partners. These companies provide specialised advisory services and knowledge, particularly where the linkage with management and organisational structure is concerned. Furthermore, the companies assist in the development of knowledge products including best practises in the South and in the North, particularly in areas such as ICT policy development, e-commerce, e-education, and e-governance. The companies benefit by expanding their experience of the new and complex political and cultural environments in developing countries. In return, IICD and its partners receive professional advice at an affordable price.

### Learning by doing

Among ICT for development practitioners there is a growing demand for concrete lessons and tools that can be borrowed, adapted if necessary, and applied. On a practical level, this means strengthening the monitoring and evaluation capabilities of IICD partners. It also means generating and disseminating knowledge and lessons learned for the wider benefit of IICD's partner organisations in particular, as well as for national policy-makers and the international community in general.

### The catalytic effect

ICT-enabled projects and policies are supported on the understanding that they will generate added value for a given sector, such as education or health, and raise national awareness about the benefits of ICT-enabled development in general. It is therefore important to evaluate the catalytic effect of these projects. This can be observed by the different spin-off activities or similar ICT initiatives that are inspired by a project.

Generally speaking, the catalytic effect of a project can be measured by looking at the ways in which it has improved or strengthened other activities in the sector and the country as a whole. The uniqueness or innovative character of the initiative also plays a role. For example, the Kinondoni District Computerisation project in Tanzania. This ground-breaking e-governance project was completed in 2003 and is now running independently of IICD. It has already received international acclaim and will be expanded shortly to incorporate all 27 wards of the largely urban district of Kinondoni, serving well over 1 million people. It is also set to be replicated in other districts of Tanzania wishing to use ICTs to decentralise and digitise their local government services.

Public awareness of the project and the new forms of interaction with other national agencies as a direct result of the project should also be taken into account. The catalytic effect of all the projects is highly rated by project partners (77%) in all nine countries. Interestingly, differences between countries are also found. For example, the catalytic effect is found to be significantly higher in Tanzania than in Bolivia. The reasons for this need to be analysed in more detail, nevertheless one explanation could be Tanzania's more limited experience with ICT.

In the private sector, the catalytic effect of an ICT project usually implies the development of a market for the products or services it generates. Telecentres are a clear-cut example: In Tanzania, within only a few years of setting up the first telecentre, whether private or publicly financed, it became a booming business stimulating local competition. Responding to market forces in this way makes it possible to sustain ICT



activities generated as part of the Roundtable process. For example, Tanzania's free market economy has enabled many rural communities to install VSATs at a fraction of the price paid by their African neighbours. Combined with Tanzania's high literacy rate (75%), this free market environment has provided an enabling environment for the Tanzania Country Programme by making it easier for local partners to bring the benefits of ICT-enabled development to rural and remote areas through their ICT projects and activities. Therefore, although poor rural connectivity continues to be a bottleneck for many of the Tanzania Country Programme's activities, the future looks promising. Other products, like information services, take more time to develop and find ways of generating revenue. Demonstrating the catalytic effect of ICT applications presents a greater challenge in countries where transaction costs are high, combined with a poor communication infrastructure. Similarly, the catalytic effects of ICT activities in the public sector are more difficult to identify and therefore harder to integrate in ongoing policies.

#### **Embedding ICT projects at the sector level**

There is always an inherent risk with projects that any impact they might have will be short-lived, lasting only as long as the project itself. One solution is to embed ICT projects at the sector or national level. This will ensure that they become part of mainstream practice and helps to prolong their impact indefinitely. However, a lot depends on winning the support, trust, and interest of key policy-makers in order to convince them of the benefits of incorporating an ICT project into mainstream sectoral practice. As IICD's projects have been in existence for some years now, there is a growing awareness of the need to develop strategies to embed them at sector level to ensure their long-term sustainability. Consequently, the Roundtable process seeks to align itself with emerging sector policies so that any projects developed as a result of the Roundtable workshop will reflect the sector's current priorities. Finally, mainstreaming and sustainability has to come from promoting ICT-based development through the demonstration effect of ICT projects and policies, as well as joint networking and lobbying by partners participating in the programmes.

#### **Demonstration projects**

The demonstration effect of locally owned ICT projects can act as an inspiration to others, particularly government ministries. This is especially pertinent, given that governments are seldom trendsetters and usually end up following new developments. Exceptions to the rule can always be found, as illustrated by the innovative government policies currently being followed in India, Ireland and the USA to stimulate the widespread national use of ICT. The picture in most developing countries is in stark

contrast to these three examples; the majority are very slow to include ICT in their sector policies. So what is holding them back? A lack of awareness about the practical benefits of ICT and difficulties in assessing risks and cost/benefits of ICT are key. This is where the demonstration effect of successful ICT projects could help to tip the balance, especially as the ability of governments in developing countries to research and explore the potential of ICT is non-existent. Their reticence is fuelled by stories about costly failures in western countries. In the meantime, the more developed countries are spending vast amounts of money on projects to learn how to get the most out of ICT applications. The European Union's budget for long-term applied research in this field is impressive. As learning occurs through trial and error, complemented by knowledge transfer, the chances for developing countries to make use of this technology are slim. Pilot projects play a crucial role in bringing about this awareness and educating policy-makers who are often neither knowledgeable about nor at ease with these technologies. Although there are exceptions, it can be asserted that projects geared towards this purpose have already largely contributed to development.

IICD supports projects and ICT sector policies by providing both technical and strategic input and, occasionally, through seed funds that can reach a total of Euro 120,000 for a maximum period of three to five years. Seed funds are made available by DGIS, DFID, SDC, DMFA and through co-funding with Cordaid and Hivos. Projects and policies supported by seed funds must try to locate other financial resources, to ensure sustainability when the seed funding period comes to an end. It has been found that providing seed funds for ICT projects and sector policies is a necessary requirement in order to raise awareness. The projects provide practical and localised evidence of the relevance that ICT-enabled development can have in achieving the wider poverty alleviation goals set by stakeholders in a specific sector. Without actual bottom-up experiences it is difficult to prove the viability of and need for ICT initiatives. In order to scale up the integration of projects into mainstream sector practice an ICT policy framework must first be developed for the sector in question. This helps ministries and development agencies from a given sector to translate ICT into an instrument that can be used to address wider development and poverty alleviation goals.

#### **Providing assistance to ministries**

IICD and its partners have already been approached by different government ministries for assistance in developing their ICT sector policies, for example: In the education sector in Bolivia, Zambia, Tanzania and Uganda; in the agricultural sector in Bolivia; and in the health sector in Uganda and Ghana. Within the framework of the national and sector policy, the value added leverage points for ICT are identified and translated into

priorities and programmes relevant to the sector. The linkage with the wider sector policy allows the direct incorporation of ICT programmes in the Sector Wide Approaches (SWAPs) supported by governments and the donor community. This opens up new possibilities to build on the positive aspects of the projects and to internalise the lessons learned.

IICD's role in this process focuses on helping ministries to formulate ICT policies for their specific sector and then lobbying government and the donor community for support. This approach takes a long time and requires intensive awareness-raising and negotiation. One example is the case of the 'Agricultural Business Information System' (ABIS) Project in Jamaica. The project was up-scaled to the national level with assistance from the Government of Jamaica and the European Union. Another example is the follow-up to the ICT policy for the agricultural sector in Bolivia. After receiving direct support from IICD and DFID for the policy process, the Ministry of Agriculture included ICT as a component in its sector programme. That programme is funded by macro-economic support, received by several donor organisations in the form of basket funding<sup>5</sup>. The same approach has now been adopted to mainstream projects in the education sector programme in Tanzania and Bolivia.

#### *Collaborating with NGOs in the North*

The logical step for ICT projects owned by NGOs is to collaborate with strategic partner NGOs in the north to help integrate ICT activities at the institutional and sector level with the support of other development agencies. In these situations, the ICT activity forms an integrated part of the core programme of the NGO that runs the project. IICD is currently collaborating with the Dutch NGOs, Hivos and Cordaid, to seek longer-term support for projects being carried out by local NGOs under its Country Programmes. One good example is the 'Environmental Information Network Project' in Ghana, which was selected for support through the United Nations Environment Programme.

<sup>5</sup> Basket funding occurs when a funding agency allocates funds at the macro-economic level. The funds then go into one 'basket' and are used at the discretion of the government ministry receiving the funds.

## Embedding: Linking ICT efforts in agriculture

### Experiences from Bolivia

One of the major problems facing Bolivia's agriculture sector is the lack of coordination with regard to the information being provided by and passed on to small farmers. This was the consensus of a Roundtable workshop on agriculture in 2002 attended by representatives from local NGOs, producer organisations, and government bodies. Workshop discussions revealed that while many local organisations do in fact provide and collect agricultural information using various communication channels including rural radio and the internet, these initiatives operate in isolation and information cannot be shared due to the differences in standards. In one region, for example, farmers register potato prices in kilos, while in other regions stacks of potatoes represent the standard counting measure.

In response to this problem, the workshop participants agreed to develop an 'Information and Communication Technology Strategy for the Agriculture Sector' as a key project idea. The Ministry of Agriculture was considered to be the most appropriate coordinator. The Vice Minister of Agriculture, Ronald Nieme, stated: "It is a necessity to include ICT as an instrument to realise the targets set out in the agriculture policy as outlined in the National Plan. At this moment, only a small group of 'innovators' among the producers make use of these technologies, a much bigger group of producers therefore needs to gain access. This will allow us to collect producers' demands more effectively and will also help to guide government activities in this sector. ICT will allow producers to enhance their capacity to negotiate, thereby making them more competitive. For this reason, my Ministry is committed to implementing this strategy."

Within only six months, the Ministry successfully developed the strategy in close collaboration with the workshop participants as well as representatives from other leading agriculture organisations.

The strategy consists of four components:

- 1 A strategy paper stating the objectives of the ICT strategy, the way in which the sector links up with national policies, and an implementation plan. Published in May 2003 with the support of DGIS and DFID.
- 2 Strengthening internal capacity to take on a coordinating role with regard to agricultural information exchange at the ministerial level, including infrastructure, training, and setting up an ICT unit and portal for the agriculture sector ([www.agrobolivia.gov](http://www.agrobolivia.gov)). Started in June 2003 with support from DFID.
- 3 Strengthening the coordination capacity in the 9 departments of Bolivia, including infrastructure and training and setting up departmental coordination committees with the participation of NGOs and producer organisations. Expected to start in 2004 with support from the Government of Bolivia and USAID.
- 4 An awareness-raising campaign to promote the strategy among the general public. Starts parallel to component 3.

What important lessons have we learned from the process?

- **Participation is key:** the NGOs and producer organisations that had originally participated in the Roundtable workshop formed the core of a Coordinating Committee set up to guide the process of formulating the strategy. The majority of the members of the Coordinating Committee already had some experience of applying ICTs to agriculture and were therefore aware of the importance of adopting a realistic approach towards ICTs and able to advise the Ministry on the possibilities of ICTs. Other organisations were consulted through a series of national and regional workshops. This ensured a high level of ownership within the sector and an understanding of the real problems that producers face in daily life;
- **Link to existing policies:** The strategy took the objectives spelled out in the governments' Poverty Reduction Strategy Paper and the Agriculture Sector Policy as a starting point for the ICT strategy. This resulted in an integrated strategy that focused both on alleviating rural poverty and addressing the needs of small-scale farmers and indigenous people at the same time. Clearly, this positioned ICT as an instrument for change rather than a goal in itself in the agriculture sector. Furthermore, this facilitates access to both government and external funding through the sector programmes.

- **Build ownership in the Ministry:** During the formulation process it is essential to set up a project team that involves both decision-makers and technical staff from the various Ministry departments. This requires awareness-raising workshops, basic ICT training and, if not present, the provision of basic access to ICT for those staff members who are directly involved in the formulation process;
- **Provide advice on the process:** Ministries have, in most cases, sufficient knowledge about sector and ICT specific content. However, they need a lot of assistance in the formulation and implementation process. This assistance can best be provided by consultants who have a good working relationship with the Ministry and who work directly as part of the project team within the Ministry. External partners such as IICD have a role in planning and guiding the formulation process, based on earlier experiences in other countries. Furthermore, external parties can also assist facilitating key consultation workshops within the Ministry and with other stakeholders.



## Lessons learned and recommendations

The initiation of 22 Roundtable processes led to 65 locally owned ICT projects being implemented by project partners between 1998 and 2003. The evaluation of the Roundtable process indicates that it allows local stakeholders to participate fully in the process and that it is oriented to local needs. Furthermore, levels of ownership are high. Direct strategic, technical and capacity assistance provided through IICD is found to be necessary and was highly rated.

It can be concluded that the Roundtable process has been positively evaluated with respect to our seven guiding principles. The analysis helps the organisation to focus on the problematic areas as indicated by the partners, and IICD takes their feedback and comments seriously. This does not mean, however, that we can sit back and relax. IICD and its partners should remain alert to the rapidly changing conditions and approaches within its nine focal countries and within the development cooperation community as a whole. Experiences gained from the Roundtable process since it first started in 1998 provide a useful series of lessons learned. These lessons help us in our continuous efforts to improve the Roundtable process.

### Link the project to the project partner's core business

At the organisational level it was found that ICT programmes need to be linked directly to the core development activity of the partner organisation. This way, ICT can act as a useful tool for the improvement of development-related activities. For example, an organisation experiencing problems in providing better marketing opportunities to farmer associations can find an effective additional tool in ICT.

We also realised the importance of involving both decision-makers and technical staff from local partner organisations in the project. This ensures that the ICT projects become absorbed into the core activities of the organisation; a move that requires the full support of decision-makers within the institution. The best approach is to try to gain the involvement of key decision-makers throughout the process, from the first Roundtable workshop meeting to the formulation and implementation phase and finally, the point at which the project becomes embedded at the sector level.

### Technology is a means to an end, not an end in itself

Too often, the acquisition of ICTs is seen as an end in itself. Yet in reality this is only the first step. ICT technology in isolation is redundant without a strategic plan to outline the ways in which it can be used to solve a specific problem or improve existing practices. There are countless examples of failed ICT initiatives, in both the developed and developing world, that focussed first and foremost on acquiring ICT equipment,

yet failed to go beyond this point and identify practical ways in which the technology could be used. Consequently, one of the first principles with regard to ICT-enabled initiatives is to start by identifying the problem and then develop an ICT-based solution to deal with it.

### Combine traditional ICTs with modern ICTs

The Roundtable process has taught us that the most effective technology for ICT-enabled development is a combination of traditional ICTs, such as community radio, and modern technologies, such as internet, databases, and websites. Considering the modern technologies available today, the focus needs to be on proven technologies that are suitable to our development partners, such as grass-roots organisations, NGOs, small private sector companies, and ministries. The introduction of proven technologies already represents a challenge to those development partners with little or no experience with ICTs. Successful implementation requires these partners to develop their own institutional capacity to install, develop, and maintain ICT applications. Complex technologies stand no chance of being sustained and integrated into the core activities of these organisations.

### Building capacities in information management and content development is key

In all cases, active capacity development in information management and content development was identified as the key to success. Unfortunately, this element is still overlooked in many ICT programmes. Merely installing ICT equipment is not enough. It is only when partners are able to organise their information and offer valuable content to the beneficiaries that ICT will provide any added value to project partners



and their beneficiaries. The content currently offered through radio and the internet is not sufficient for the end users. Therefore, partners and their end users need to develop relevant local content. Finally, it was found that actively involving end users in the use of ICTs and developing their individual and institutional technical skills accordingly through a well thought out capacity development programme is key to securing ownership and participation.

#### **Improve telecommunications and internet connectivity**

Improving telecommunications and Internet connectivity is another important determinant of success if ICTs are to reach rural areas, ensuring that this instrument bridges rather than increases the digital divide. To achieve this, IICD and its partners need to lobby for an improved enabling environment, with better regulations and more investments in rural connectivity by the private sector and governments. More attention should also be given to developing partnerships with the private sector and the government to seek flexible solutions to address the issue of poor rural connectivity.

#### **Internet access by sharing satellite and costs**

The Roundtable process in Bolivia has been exploring a number of possible solutions to combat poor rural connectivity, including using the Internet combined with local radio programmes to broadcast market information to farmers in isolated rural areas and much older voice radios to get feedback from far away communities. Local partners recently negotiated an attractive solution for good Internet access with FINRURAL, a national micro-credit organisation. To ensure a sustainable solution, the technology chosen allows the partners to share the satellite link and related costs with FINRURAL and other organisations in the community such as the municipal government, farm organisations, and schools. At community level, the organisations are linked via wireless technology (WIFI). The first connections are now operational in the isolated indigenous community of Lomerio, 600 kilometres east of Santa Cruz. This collaboration is a good example of how workable solutions for poor telecommunications and Internet connectivity can be found through strategic alliances.

#### **Aim for long-term sustainability and replication**

It was found that the bottom-up approach to ICT, as applied in the Roundtable process, is necessary to create awareness and interest among private sector companies, NGOs, governments and the international donor community. This way, the needs of the target groups and involvement of multiple stakeholders can be better represented. Locally owned ICT projects and sector policies provide good starting points for the development of ICT programmes with a wider impact on sector level. It is only by achieving solid results on the ground that the long-term sustainability of ICT for development programmes can be ensured.

Our experiences with the Roundtable process have taught us that various approaches have to be adopted to ensure sustainability. The first challenge lies in finding ways to sustain operations through end user contributions to ICT-based initiatives. At this moment, leading NGOs and governments are not yet used to seek in-kind or financial contributions for ICT services provided to lower-income beneficiaries. It is important to discuss possible ways to guarantee contributions covering at least part of the services provided.

We have also learned that contributions from beneficiaries alone will not be enough to sustain the full costs of ICT initiatives. Therefore, the second key area of importance is to increase the level of interest among NGO-based funding agencies in integrating ICT into their assistance programmes. The partnership between IICD and the funding agencies Hivos and Cordaid, demonstrates that ICT is an effective tool in their assistance programmes. The partnership also indicates that a partnership between these organisations and specialised ICT organisations such as IICD is a requirement for effective introduction of ICT-enabled development.

A more recent approach towards ensuring that the impact of ICT initiatives carried out under the Roundtable process can be sustained and replicated involves embedding ICT projects and policies into sector programmes supported by governments and the donor community. This approach is strongly advocated by our key partners in the Building Communications Opportunities (BCO) alliance. Embedding helps in the direct application of ICTs to realise development-based sector goals, such as improved education or increased income for farmers. Experience has taught us that this part of the process requires active facilitation by institutions such as IICD in the policy process in order to ensure a participative approach to policy-making. An additional requirement is to build formulation and ICT capacities at the ministerial level, thus enabling the ministries to take a lead in ICT sector programmes.



Whereas the first experiences in Bolivia and Tanzania are positive, this approach will require intensive attention and interest of all parties in establishing partnerships among local partners and the international donor community. One specific area that needs more attention is finding ways to strengthen relations with locally-based representatives of donor agencies in the nine Country Programmes, particularly with regard to raising their awareness about the beneficial impact that ICT initiatives can have in the development sector. The latter will remain an important task for the BCO partners, organisations such as IICD and its partners in the countries. To accomplish this task, the knowledge sharing and lobbying role of Information Networks in the different Country Programmes will provide a strong instrument over the next few years.

To sum up, the findings of the Roundtable process support our original hypothesis: Far from being a technology driven issue, ICT-enabled development is all about people. Listening to people; helping them identify the right ICT application for their information needs; providing them with the appropriate technical skills; sharing knowledge with them; encouraging them to share knowledge with others as part of a mutually beneficial learning process, and convincing local stakeholders (particularly policy-makers) of the benefits that ICTs can bring to their sector are all key factors that contribute to the success of ICT-enabled development. While the importance of identifying efficient and cost-effective technical solutions for issues such as rural connectivity should not be understated, the key role played by local actors from the first phase of developing and implementing an ICT project to the final phase of embedding it at sector level to ensure its long term sustainability cannot be emphasised enough.

The findings of the evaluation of the Roundtable process between 1998 and 2003 also reaffirmed our belief that the long-term success of ICT-enabled development hinges on two factors; empowerment and long term sustainability. With regard to empowerment, one of the greatest accomplishments of the Roundtable process so far has been its ability to empower local people at all levels and from a wide range of disciplines. This includes government officials, leaders of indigenous peoples, teachers, secondary school students, peasant farmers, artists and musicians, representatives from local women's associations, and high-ranking government officials. All these groups have taken part in the Roundtable process with one goal in mind; to identify the right ICT application or combination of ICT applications to improve their ability to access or disseminate information for the benefit of their sector. The skills they acquired during the Roundtable process have not only enabled them to develop and implement their own ICT projects in the short term, but in some cases have given them the confidence and ability to continue with their projects independently of IICD in the long term and even replicate them in the form of new projects. The 'Kinondoni District Computerisation' project to decentralise and digitise local government services in Tanzania, and the projects 'Caribbean Music Expo' and 'Caribbeat' to revitalise the Caribbean music industry in Jamaica are excellent examples of locally owned ICT projects initiated under the Roundtable process that are now continuing independently. In order to ensure the long-term sustainability of the ICT initiatives implemented as part of the Roundtable process, IICD and its partners will continue the process of persuading local decision-makers and policy-makers to embed them at both the organisational and sector level throughout 2004.

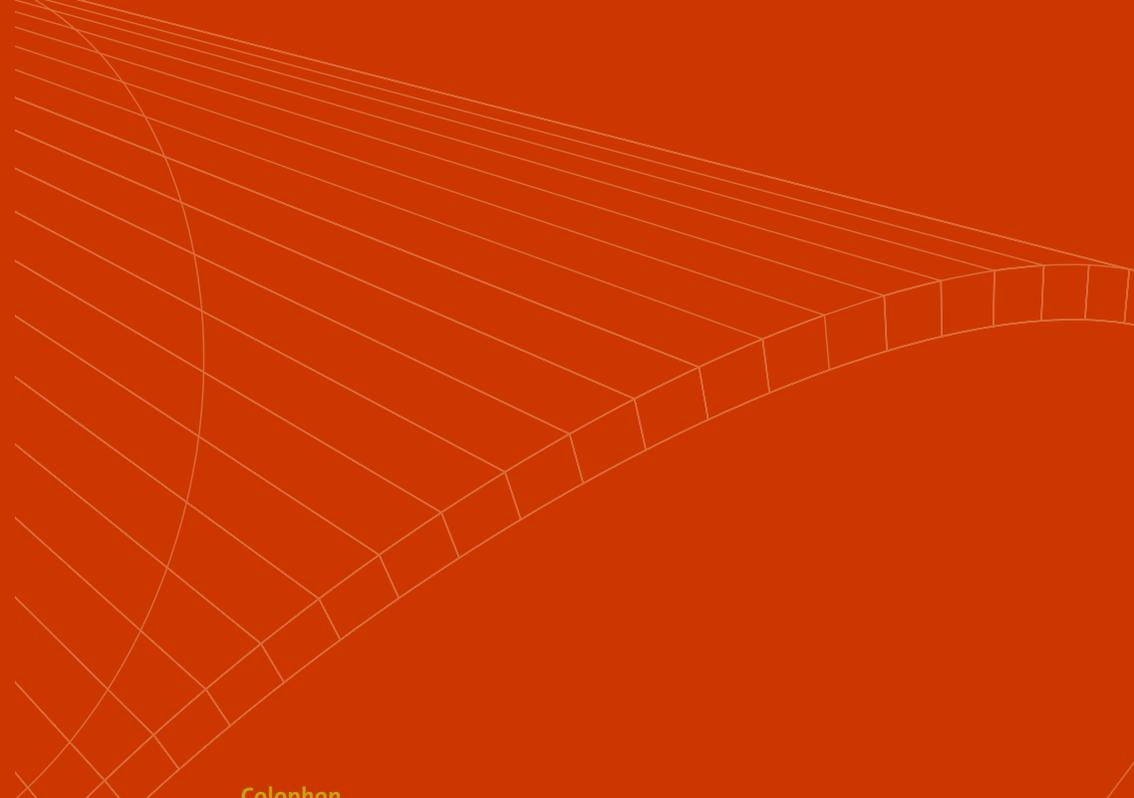
Looking back, the learning experience throughout the Roundtable process has been a two-way process: IICD too has gained many useful insights from the Roundtable processes in each of its nine country programmes. For example, one size does not necessarily fit all; ICT needs within different countries can vary greatly, despite their proximity to one another. Other valuable lessons we have learned along the way include the following:

- Poor connectivity is still a major problem, especially in the rural areas, often causing delays in project activities.
- When formulating and preparing ICT activities, one has to take the political and cultural environment at the local level into account. Being very clear on responsibilities is key.
- Knowledge sharing is not common practice: overcoming competition and the 'gatekeeper' syndrome can present a major challenge to the Information Networks.

- Communication between project teams and end users needs to be improved and problems openly addressed in order to avoid disappointment and to manage expectations.

To conclude, the journey towards ICT-enabled development in Africa was aptly summed up by Sylvestre Ouédraogo from Burkina Faso recently when he stated: 'In Africa priority has been given to a wide range of development areas such as education, health, agriculture, road construction, etc. and while addressing these issues one can also hear the drum beating to the rhythm of the Internet'.<sup>6</sup> We hope that sharing our experiences of the Roundtable process and those of our end users in this way will be useful to others who are about to embark upon such a journey.

6 L'ordinateur et le djembé. Entre rêves et réalités, by Sylvestre Ouédraogo.



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## Lessons learned from facilitating ICT-enabled development

This booklet forms part of a series of studies realized by the International Institute for Communication and Development (IICD). It is an attempt to capture the effectiveness and lessons learned from the Roundtable process; an alternative approach adopted by IICD as part of its strategy to empower people through ICT-enabled development.

This booklet is the result of an evaluation of the Roundtable process between 1998 to 2003 based on quantitative and qualitative indicators. The findings are particularly relevant for decision-makers in organisations for development cooperation, international development agencies, local policy-makers, practitioners in organisations working with ICTs for development, the donor community, ICT companies, and others involved in facilitating ICT for development initiatives.