Framework for the assessment of ICT pilot projects

Beyond Monitoring and Evaluation to Applied Research

infoDev

Information and Development Program
Preface

In the past few years, Information and Communication Technology (ICT) for development initiatives have proliferated and the resources devoted to ICT in development portfolios have expanded in the hope that ICT can help developing countries reach the Millennium Development Goals. Yet, rigorous field-tested knowledge about “what works and why” in ICT for development, and a deeper understanding of the enabling conditions and success factors in ICT for development initiatives, have been relatively scarce.

As a result, there is a growing consensus in the development community that ICT will only become an effective and mainstream tool of poverty reduction and sustainable development if the proponents of ICT for development can provide more rigorous evidence, strategies, benchmarks, indicators, and good practices that are directly relevant to the core poverty-reduction and development priorities of developing countries and their international partners.

This publication is designed to contribute to this goal by providing a framework for the monitoring and evaluation of ICT pilot projects. Our hope is that this framework will help all stakeholders in ICT pilot projects to gather rigorous evidence we all need to make forward looking judgements and decisions about ICT for development projects.

Mostafa Terrab
infoDev Manager
Acronyms

CIDA  Canadian International Development Agency
CSF  Critical Success Factors
CWIQ  Core Welfare Indicator Survey
DFID  Department for International Development (UK)
DHS  Demographic & Health Survey
DVD  Digital Video Disk
EC  European Commission
Epi-Info  statistical analysis software
FOOD  Foundation of Occupational Development
ICT  Information and Communication Technology
ICT4D  Information and Communication Technology for Development
IDRC  International Development Research Centre
IFAD  International Fund for Agricultural Development
IXP  Internet Exchange Point
JICA  Japan International Cooperation Agency
KAPB  Knowledge, Attitude, Practice and Behaviour Surveys
LSMS  Living Standards Measurement Survey
M&E  Monitoring and Evaluation
MDGs  Millennium Development Goals
MICS  Multiple Indicator Cluster Survey
MSC  Most Significant Change
NGOs  Non Government Organisations
OECD  Organisation for Economic Co-operation and Development
PARC  Performance Assessment Resource Centre
PRSP  Poverty Reduction Strategy Paper
SIDA  Swedish International Development Agency
SMEs  Small Medium Enterprises
SPSS  a proprietary brand of statistical analysis software
ToC  Theory of Change
TOR  Terms Of Reference
UNDP  United Nations Development Programme
UNESCO  United Nations Educational, Scientific and Cultural Organization
UNICEF  United Nations Children’s Fund
USAID  United States Agency for International Development
# Table of Contents

**Executive Summary** 7

1 Introduction 11

**Section 1 – The two main Framework components**
2 Introducing the Framework 15
3 Component 1 – “Project Purpose” questions 16
4 Component 2 – The Research questions 19

**Section 2 – Managing an assessment of ICT pilot projects**
5 Overview of managing an assessment 25
6 Engage with Grantee – Negotiating to include applied research 26
7 Determine roles and responsibilities 27
8 Negotiate the Research questions 28
9 Plan the assessment details 29
10 Gather credible evidence – Approaches and tools 30
11 Interpret the data 36
12 Share outputs for lesson learning 39
13 Differences when applying the Framework to old ICT pilot projects 40

**Section 3 – Annexes**
1 M&E in the bilateral donors 43
2 References 48
3 Checklist from ICT pilot project case studies 50
4 Checklist on documentation for past ICT pilot projects 52
5 OECD/DFID ICT and MDG links 53
6 Example “Mainstream Summary Sheet” 55
7 Example application of the Framework 57
8 Diversity in ICT pilot projects 67
9 Checklist on issues for consideration 70
10 Terms of Reference of the Framework 72
11 Quick guide – Framework for the assessment of ICT pilot projects 74
For ICT pilot projects to contribute to mainstream development there is a need for evidence based interpretation from a forward looking perspective. In order to fulfil the needs of infoDev, its donors and partners, ICT pilot projects should be viewed as applied research. Therefore ICT pilot projects need to address specific hypotheses and generate appropriate data. For this to happen there should be a common approach. The Framework here focuses on gathering the evidence required in order to make an evidence based interpretation or judgement of the potential outcome of mainstreaming the ICT pilot project in development activities and taking it to scale.

Monitoring and Evaluation (M&E) at the project level is not enough, there is a need for applied research. Undertaking M&E during and after an ICT pilot project is standard good practice and is used for accountability and learning. It is generally incorporated in the project design and managed by the Grantee. It seeks to answer the central premise that if certain activities and outputs are completed then the project will achieve its purpose. Such M&E can be thought of as answering “Project Purpose” orientated questions. However, infoDev, its donors and partners, look on ICT pilot projects from a “proof of concept” point of view and as such its interests lie beyond the fulfilment of the project.

“InfoDev sponsors or facilitates, in co-operation with its donors and a broad range of partners, a variety of knowledge-generating and knowledge-sharing activities that are dynamic and mutually reinforcing – a full suite of knowledge-based services for its donors and other partners.” infoDev strategy document 2005/07

“Three Themes, Common Questions. infoDev’s research strategy for the years 2005–2007 will focus on the three key themes:

- Mainstreaming ICT as tools of development and poverty reduction
- Enabling Access for All
- Scaling up private sector-led ICT innovation, investment and new business creation”

ICT pilot projects can contribute research data and evidence that, when interpreted from a forward looking perspective, speak to these themes and address knowledge gaps. These three themes are not separate “silos” but three dimensions of one common challenge of harnessing the power of ICT to fight poverty and promote sustainable, broad-based development.

The infoDev 2005/2007 draft workplan states the following:

“Demonstrating Impact and Scalability: infoDev’s traditional pilot projects could be seen as proof of concept exercises, but without adequate attention either to understanding impact or to exploring sustainability and scalability. In its new work program, infoDev will focus increasingly both on assessing the impact of successful pilots (both its own and others) and on designing and implementing proof of scalability exercises for high-impact pilots that show particular promise, so as to test these projects for sustainability and effectiveness at scale before donors, national governments and/or the private sector become more heavily investing in them.”
purpose. It views the ICT pilot as applied research, testing a forward looking hypothesis. Therefore an assessment of an ICT pilot project should include two components – “Project Purpose” questions mainly answered by a good M&E system, and Research questions, answered by an evidence based interpretation of the ICT pilot project.

This Framework outlines both:
- the need of pilot projects to implement a Monitoring and Evaluation (M&E) system that will ensure the pilot fulfils its developmental purpose for its clients and beneficiaries
- the need of pilot projects to put in place evidence based research for proof of concept (how the pilot could contribute to development priorities and how it might be taken to scale from a forward looking perspective)

Having presented the two main components of the Framework, this document outlines the steps that a Task Manager should undertake to ensure a consistent and valuable assessment.

Among other elements, the guide presents a number of suggestions regarding appropriate instruments and approaches to gather credible evidence. A brief discussion is held on the role of baseline studies and the use of evidence. The main conclusion is that a mix of instruments will most likely be required and these should yield a mix of qualitative and quantitative data. The proposed approaches include Tracer Studies, Knowledge Attitude Practice and Behaviour (KAPB) studies, Delphic surveys, Data collection, Household surveys, Participatory appraisals, Outcome expectations and Most Significant Change (MSC).

During the ICT pilot project, the M&E system will be feeding back qualitative and quantitative data to the project managers, who may then use it to refine or adjust the project (formative M&E). At the end of the project, the Grantee and the project team will want to assess the project for its achievement of purpose. They will want to learn from the experience, to determine if the project has served their client communities, and how it might be improved in a second phase, or perhaps how it might be replicated (summative M&E). However, in order to fulfil the Research questions the evidence will also be used to make a forward looking interpretation.

In particular we have noted that the Research questions should contribute to donors and partners understanding of how ICTs can affect wider development priorities. In order for the outcomes of the assessment to be relevant and taken up by them, the Framework proposes there should be explicit reference to the models and concepts that are used by this community. These can be thought of as a ‘bridge’ placing the results of the assessment in familiar language to them. Examples of bridges for mainstreaming are: the Sustainable Livelihood Framework, commonly used by DFID UK, sector guidance sheets and the Millennium Development Goals (MDGS).

Sharing the outputs of an assessment at various levels is of central importance. Although this comes at the end of the process, the research has been conducted to inform donors and partners, therefore every opportunity for sharing the outputs of the research should be taken. Outputs should be shared at the local level for lesson learning purposes. At the national and regional level there may be specific lessons that could benefit development co-operation. At the international level infoDev will take the outputs of the applied research and feed them into the donor community to fill specific knowledge gaps.
Introduction

1. Purpose of the Framework

This Framework outlines the need of ICT pilot projects to:

- implement a Monitoring and Evaluation (M&E) system that will ensure the pilot fulfils its developmental purpose for its clients and beneficiaries
- put in place evidence based research for proof of concept (how the pilot could contribute to development priorities and how it might be taken to scale from a forward looking perspective)

The development community and developing countries seek to harness Information and Communication Technologies (ICTs) as tools of poverty reduction and sustainable development. But poverty is extremely complex and understanding whether ICTs can help alleviate it requires rigorous assessment. Over the last ten years many agencies have invested in, and will continue to invest in, ICT pilot projects. The purpose of such investment is to gain insights as to how best to use new technologies as part of the efforts to achieve the Millennium Development Goals (MDGs).

These pilot projects raise three crucial questions:

- Is there an identifiable relationship between the alleviation of poverty and ICTs?
- How helpful are the current Monitoring and Evaluation (M&E) criteria for assessing ICT pilot projects?
- Where the ICT pilot project has been a proof of concept, how can it be assessed in these terms, i.e. against wider development priorities and its potential for replication and scale?

The Framework as set out in this document focuses on gathering the kind of evidence that will help to answer these questions so that those wishing to mainstream ICT in development activities have evidence on which to base their decisions.

1.1. Standard Monitoring and Evaluation (M&E)

Standard Monitoring and Evaluation (M&E) approaches are designed to address the immediate purpose of a project. The key questions for M&E concern the project itself. Annex 14 provides links to key texts on M&E, and the following is intended to be a short discussion that draws out the difference between standard texts and the needs of this framework.

“Ex-Ante” evaluations are undertaken while the project is in process. They may occur at the mid point of a project although they are very closely associated with the ongoing monitoring of the project. An Ex-Ante evaluation is an opportunity to pause and think about the direction of the project, making sure the project is on course for fulfilling its intended purpose, and redirecting if necessary. In this sense the M&E helps form the project, and is “formative M&E”.

“Ex-Post” evaluations are undertaken at or after the conclusion of the project. They are a learning exercise that identifies whether the purpose has been achieved and if so what the context and processes were that led to that outcome. By understanding the contribution of the project design to the fulfilment of the purpose, the lessons learned are used to assist the implementing organisation to make sure its operations in the future are effective. It helps donors to understand what works and what does not (thereby ordering their priorities), and assists the development community (including the clients) to learn how best to move forward in the future. These evaluations are “summative M&E”

1.2. Beyond M&E to Research

A pilot project (ICT or otherwise) is often attempting to be both a positive developmental implementation that is useful to its client community (and thereby fulfilling a specific
purpose), and also a proof of concept for something much bigger.

In its strategy documents infoDev has identified the main needs of its donors and partners regarding ICT for development. In these documents it calls for ICT pilot projects to be assessed in terms of their contribution to core development priorities, and to be assessed as to whether they can be taken to scale. The strategy highlights the absence of evidence about the impact of ICT pilot projects on core development priorities and calls for each pilot to address key research questions. Similarly the strategy recognises that taking a pilot to scale is rarely straightforward. There is a need to understand the broader enabling conditions, and to assess what the impact might be at scale.

Toreiterate:
- As an implemented project serving its community, pilot projects need to be monitored and evaluated formatively to ensure they are working as effectively as they can towards their stated purpose.

The infoDev strategy calls on behalf of its donors and partners for ICT pilot projects to be linked to specific research questions. These research questions need to be of an interpretative nature, e.g. given the outcome of the pilot and the broader environment in which it was taken, what might be the impact of taking such a pilot to scale? What impact might it have on wider development priorities?

This Framework discusses the immediate needs for the M&E of ICT pilot projects as part of the project cycle, and presents a framework for undertaking an interpretive analysis of the proof of concept presented by the ICT pilot project.

To reiterate:
- As an implemented project serving its community, pilot projects need to be monitored and evaluated formatively to ensure they are working as effectively as they can towards their stated purpose.

The following example illustrates the difference between M&E of Project Purpose and the research needs of infoDev:

An ICT pilot project is focussed on a Telecentre that is serving the nearby community. The Project Purpose is to create a point of public access so that its clients may improve their livelihoods by access to information and connectivity. However, it is also trying to prove the concept that Telecentres as places of public access could be replicated throughout the country, and thereby offer a significant contribution to development priorities.

As a Telecentre serving its community, the purpose orientated M&E system needs to ensure that its implementation has been of value to its clients; that it has been an efficient effective project, and the expected numbers of people use the service. It might also enquire as to whether the centre will be financially and managerially sustainable after the pilot completes.

As a proof of concept a different set of questions need to be answered which might include:
- What Telecentre services most affected the livelihoods of its client community?
- Were there unique factors that affected this Telecentre that might not be able to be replicated (for instance, did its success depend on a Champion)?
- Did the centre affect local government transparency (e.g. access to land title deeds)?
- If it did, what would be the implications for the government if one hundred Telecentres started demanding access to information, etc?
Likewise, the implementing organisation of a project and the immediate clients all have a right to evaluate and learn from their project to help them improve the design of similar projects or to address future needs.

However, as a proof of concept, a pilot project needs to be assessed (evaluated) for its contribution to wider development priorities and to show how it might be scaled from a forward looking perspective. This demands that the pilot be commissioned in the light of clearly articulated research questions, and the gathering of evidence should be orientated to answering those questions.

The diagram opposite of UNDP regarding monitoring and evaluation has been adapted to illustrate the added element of research of this Framework.

Undertaking formative and summative M&E of an ICT pilot project that is also being used to demonstrate proof of concept (research) will produce an overlap between the different outputs. The proof of concept might also require extra data or evidence that goes beyond the requirements of M&E good practice for development projects.

This Framework recognises this and outlines the need of pilot projects to implement:

- an M&E system that will ensure the pilot fulfils its developmental purpose
- evidence based research for proof of concept (how the pilot could contribute to development priorities and how it might be taken to scale from a forward looking perspective).

The infoDev strategy is more interested in the “proof of concept” and therefore the emphasis in this Framework is on the latter.

1.3. Assessment not evaluation

The Framework is designed to interpret or judge ICT pilot projects for their proof of concept. For this reason the Framework uses the word “assessment” rather than “evaluation” because its interpretive purpose goes beyond the normal meaning of the word “evaluation”. "Assessment" covers the combination of evidence and data gathering of the projects’ purpose-orientated M&E system, additional evidence or data required for proof of concept along with the interpretation or judgements made on the data from a forward looking perspective.

1.4. Who the Framework is for

The Framework is intended for the community of infoDev and its donors and partners. It is designed to help Task Managers plan and manage the assessment of ICT pilot projects when commissioning them. The Framework directly addresses the infoDev strategy by treating these projects as applied research to fill knowledge gaps. Since infoDev suggests this is the main purpose of this type of project, any donor or partner should find the Framework directly relevant to their work.

The Framework does not present a comprehensive discussion of all aspects of M&E but offers pointers so that the assessment can be managed more easily by the Task Manager.

By the end of this document, the Task Manager should be able to:

- Plan and manage the processes that will answer the applied Research questions that are being explored within an ICT pilot project and so ensure its value to the donor community.
- Simultaneously put in place purpose-orientated M&E in order to ensure the value of the project to the Grantee and its client community.

1.5. Document structure

The document is structured into two main sections. Chapters 2–4 set out the Framework and its origins, Chapters 5–12 focus on the steps the Task Manager should follow to commission and manage an evaluation.

Section 1

Chapter 2 briefly introduces the Framework and the two key components that form its structural outline – “Project Purpose” questions and Research questions.

Chapter 3 details the role of “Project Purpose” questions.

Chapter 4 details the Research questions.

Section 2

Chapter 5 introduces the steps a Task Manager should take to commission an ICT pilot project assessment.

Chapter 6 explains the first step in the Framework; negotiating with the Grantee the ICT Pilot Project.

Chapter 7 determines the roles and responsibilities for the assessment.

Chapter 8 briefly discusses how to determine the Research questions.

Chapter 9 discusses the detailed planning of the assessment.

Chapter 10 examines the approaches for gathering credible evidence.

Chapter 11 looks at the interpretation of this evidence within the context of both the Project Purpose and the Research questions.

Chapter 12 looks at how to share outputs for lesson learning.

Chapter 13 deals with projects that have already started or have been completed and draws attention to the small changes in the steps required to adequately apply the Framework to past projects.

Section 3 – Annexes

A number of annexes are presented to assist the formation of the assessment details.
Section 1 The two main Framework components

2. Introducing the Framework

This chapter gives an overview of the Framework. It introduces two components to the Framework. These are two sets of questions that are called respectively:

- “Project Purpose” questions. These should be answered by the M&E system put in place by the implementing agency.
- Research questions. These require that the ICT pilot projects be treated as applied research, and assess the project from a forward looking perspective.

2.1. Where are the knowledge gaps?

In its 2004 strategy paper, infoDev identified five crucial and related challenges facing the development community and developing countries as they sought to harness ICT as tools of poverty reduction and sustainable development. These challenges provide a starting point for the proposed Framework and are summarized as:

1. Impact: understanding what works and why - when using ICT to combat poverty.

   “There is still little rigorous understanding of the conditions for success of these innovations. There is an urgent need for more rigorous evaluation and impact assessment models and tools, and better analytical Frameworks for understanding the role of ICT as change agents in all sectors of economic and social development.”  

2. Mainstreaming: ICT as a tool in sectoral development programs and national strategies.

   “Mainstreaming involves not only subordinating ICT to broader strategies and goals, but also more effectively navigating the trade-offs between ICT and other interventions in resource-poor environments and the links between ICT interventions and other elements of broader sectoral strategies (in education, health, rural development, etc.).”


   “This requires not just resources, but also (and as importantly) coherent strategies and policies and the capacity to design, implement and adapt them to changing circumstances.”

4. Scaling up: the role of the private sector.

   “The challenge of scaling up private sector innovation and investment in ICT remains substantial in most developing countries”.

5. Technological Change: its implications for developing countries.

   “A key element of understanding the implications of these changes is exploring how the specific needs and demands of developing country users can be addressed in innovative, locally-appropriate ways thanks to technological innovation.”

The ongoing analysis of ICT for Development by infoDev during 2004/5 led to consolidating these ideas into three key themes that form the basis of the workplan for 2005/7. The key themes are as follows and each has been allocated a Primary Research Question by infoDev:

- Mainstreaming ICT as tools of development and poverty reduction.
- Enabling Access for All.

15

infoDev Framework for the assessment of ICT pilot projects
3. Component 1 – “Project Purpose” questions

The first component of the Framework, the “Project Purpose” questions, has been based on the five criteria most agencies currently use in the Monitoring and Evaluation (M&E) of development interventions. These criteria are thoroughly tried and tested in the evaluation of mainstream development projects. The questions that result from the criteria are designed to assist the Grantee to fulfill the purpose of the ICT pilot project as a project that serves its client community.

There is a need to apply standard M&E processes to ICT pilot projects to ensure they have the best chance of success, but the analysis and interpretation of data needs to be undertaken in the light of their innovative and experimental nature. This balance between the immediate purpose of the project and the applied research associated with innovation is discussed in more detail in chapter 4 – the key Research questions.

We need to be careful not to automatically set evaluation questions based on the five criteria, but to develop the main questions that would give useful answers for improving (and learning from) the project. Accordingly, emphasis among criteria may be different.

3.1. Introducing the “Project Purpose” questions

The questions for M&E systems focus on the stated purpose of the project. The following questions are based on the five criteria but have been expressed in terms suitable for ICT pilot projects. They include:

- What were the project objectives in terms of poverty interventions, have they been met?
- What have been the outcomes/impacts of the project both in the immediate short term and in the longer term on the full range of project defined stakeholders and beneficiaries?
- What were the processes which led to the outcomes?
- What were the context and conditions that led to the outcomes?
- Are the project outputs and/or outcomes sustainable, and under what conditions?
- Have the project outcomes had an unintended impact on the wider social economic and policy environment?

The objective of these questions is to gather information that provides evidence on whether the processes and outcomes of the project were as stated in the proposal, and what factors might have influenced whether the project has or is likely to achieve its purpose as stated in the proposal.

However, these “Project Purpose” answers also provide the context and background to the ICT pilot project that can then be subjected to specific Research questions. The Research
3.2. What were the project objectives in terms of poverty interventions?

ICT pilot projects can take various forms and purposes. Annex 21 presents the conclusions of an analysis of ICT pilot projects funded by infoDev in the last 5 years. It concludes that ICT pilot projects can be approximated to four categories each with a different general purpose. These are:

● Those with a specific purpose of changing the enabling environment i.e. projects that attempt to influence or change the regulatory environment, policies, legal framework, awareness among policy makers, or the public (informed by the media).

● Those with a purpose that specifically attempt to encourage take up and provision of ICTs by the ICT sector i.e. encouraging private (and to a certain extent public and donor) sectors to take up new ICT opportunities, providing ICT Infrastructure and applications.

● Those that seek to enhance service delivery efficiencies through new technologies e.g. working to enhance health services, education, local government, civil society.

● Those that seek to create opportunities for direct use of ICTs by the poor to enhance their livelihoods – provision of market data, telecentre public use of ICTs.

This identification of the four general types of purpose helps discussion about the linkages between the Project Purpose and poverty reduction. Note that ICT pilot projects that support the ‘enabling environment’ or are directed at creating market changes may not have an obvious direct link to poverty reduction.

3.3. What were the outcomes/impacts of the project both in the immediate short term and in the longer term for the stakeholders and beneficiaries?

The pilot evaluation should show what actually happened in terms of the intended and unintended outcomes. It should also consider what might happen in the longer term regarding these outcomes of impacts.

For example: If the purpose of the ICT pilot project was to change the regulatory environment, the outcomes may document changes made by the decision makers, or changes in thinking/attitude in decision makers that may eventually lead to changes in policy.

Issues for consideration:

● What aspects of poverty did the project address?

● What were the unmet needs of the poor that the pilot project was targeted at providing?

● What were the links between the ICT project and the broader, more comprehensive, development and poverty-reduction strategies?

● What are the links between the ICT project and the broader processes that will contribute to the Millennium Development Goals?

● How did the project address the basic needs of the poor in terms of economic opportunity, improved nutrition, health care, healthy environments, education and sustainable livelihoods?
changes in access to information and knowledge and/or capital
ability to innovate and compete in local, regional and global markets
changes in the entrepreneurial environment to help commercialize new technologies
sustained economic growth
reduction of poverty, hunger and disease
improved economic and educational opportunities for the poor
greater gender equality
changes in market reforms, information flows and incentives for risk and innovation
changes in governmental institutions that shape and regulate the market.

Where the pilot works directly with the poor, a wide range of direct outcomes/impacts will need to be considered:
- participation of the poor in decision making and how this affects their lives
- their involvement in civil society (institutions and networks)
- changes in the resources and capacities of a community and the effectiveness of its institutions and markets, or its broader economic prospects
- increase in productivity for small farmers
- access to better health care and education
- environmental sustainability.

Regarding the longer term, how might the outcomes of the project fit into the long term? What longer term events might result as a consequence of the immediate outcomes?

### 3.4. Have the project outcomes had an unintended impact on the wider social economic and policy environment?

Of particular interest to the ‘lesson learning’ in infoDev, are the occasions where pilot projects have created deeper outcomes in the social and economic environment.

### For instance, a pilot project may have changed the market relationships between traders and producers. The availability of key market information may have caused a profound price change that has an effect outside the pilot project location. Similarly, access to online government information may have changed the dynamics of corruption within government services, permanently eliminating a significant hurdle for the poor.

**Issues for consideration:**
- Has the outcome of the project led to deeper outcomes within the social and economic environment?

### 3.5. What were the processes that led to the outcomes?

This relates to the internal project factors. The Framework requires the study to look at the pathways the project took that led to the impact. Identification of these will vary in each project. If it is attempting to affect the enabling environment, the pathways will likely revolve around networks and people. If the project is enhancing service delivery, the pathways will revolve around efficiencies gained and the acquisition of the appropriate skill base. Projects that directly affect livelihoods will revolve around the processes that led to both the potential gains in assets and the mitigation of risk and vulnerability. The Grantees’ processes for implementing the project are also important and should be documented. The evidence should include policy obstacles, lack of institutional support, lack of financing, technical limitations, etc. The study should explain how those challenges were overcome or are being addressed. This may be very specific to the pilot. For example, the fast pace of change in ICT may mean that many of the original obstacles the pilot faced are no longer relevant. It will be important that the analysis includes enough detail on the obstacles to determine those that are likely to affect future scaling.

In particular, infoDev is interested in the role of the ICTs in the processes that led to the outcomes.
Issues for consideration:
- There needs to be a focus on stakeholders and beneficiaries - what activities and products were used to communicate with them and engage them in project outputs and objectives?
- The nature and extent of participation and consultation in determining needs.
- The nature of and extent of lessons learned, and used from ICT or other sectors (e.g., communication for social change projects).

3.6. What were the context and conditions that led to the outcomes?

The previous section discussed the internal project processes but outcomes are also strongly influenced by external factors. These might be the policy and regulatory environment, the legal framework or available finance etc. The evaluation should document the context of the pilot in sufficient detail to be able to determine which factors were critical to its success. What factors can be expected to be available should the pilot be taken to scale? It is especially important in terms of poverty reduction to identify the role of the pilot in relation to the national Poverty Reduction Strategy Paper (PRSP). Was the pilot ahead of its time in anticipating the needs of the PRSP strategy or was it a part of the current strategy?

Issues for consideration:
- What was the context in which the project took place and what contextual factors helped or hindered its impact?
- What were the general political processes and economic environment that enabled the changes in decision makers’ knowledge attitudes and practice?
- What were the impediments to the realization of poverty reduction?
- What changes in resources, capacities, institutions, markets, social structures, etc. were necessary in order to remove those impediments and achieve the desired ends?
- Was the project adapted to the needs of the community, its social dynamics, or physical and environmental constraints?

3.7. Are the project outputs and/or outcomes sustainable, and under what conditions?

It is not a necessary outcome that the pilot project itself be sustainable. Factors that affect the pilot today may change in the future. The pilot may have been constrained by specific time-bound external factors. For instance, if the pilot was not recognised as part of the national Poverty Reduction Strategy Paper (PRSP), it may not have received the long term support required for its sustainability. Educational projects that pilot the use of ICTs in schools can be susceptible to national education plans and the absence of IT support. Does the pilot project indicate that a measure of sustainability is possible if the wider support mechanisms were in place?

Similarly, the project itself may not be sustainable, but its outcomes may be. For instance, the pilot may be advocating the extension of the telecom system to rural areas. Donor finance is required for the advocacy, and in the longer term the advocacy activities may not be sustainable. However, the outcomes of the advocacy, i.e., the extension of the network, may be sustainable since the decision makers now realise the benefits of extension to rural areas, and the private sector may be taking up the challenges.

Issues for consideration:
- Are the pilot project outputs sustainable?
- Are the pilot project outcomes sustainable?
- If the project was scaled, are the outputs likely to be sustainable?
- If the project was scaled, are the outcomes likely to be sustainable?

4. Component 2 – The Research questions

The last issues for consideration in 3.7 draw attention back to the Research questions introduced in chapter 2. We have noted that the infoDev strategy is focused on addressing the knowledge gaps of its donors and partners on how to effectively harness ICTs as tools to fight poverty and promote broad-based, sustainable development.

While the ICT pilot project may have purposes such as “to pilot an innovative communication system for health clinics” or “to pilot a connectivity model that will increase rural access”, infoDev and donors will fund such pilots only if as far as they contribute evidence and data to the key Research questions that lie behind their strategy.

The above M&E based “Project Purpose” questions provide a picture of the ICT pilot project, its context and its outcomes. However, these questions do not directly address the strategic priorities of the InfoDev community. They do not in themselves provide an indication of how the ICT pilot project might be taken to scale and what impact this might have on its context and on development priorities. The infoDev strategy is specifically seeking evidence based interpretation or judgement on how the ICT pilot project might be mainstreamed and scaled, and what its impact might be on development priorities and the social economic context.

In order to fulfil the infoDev strategy, the Framework introduces key Research questions. These need to be related directly to the knowledge gaps identified by infoDev and to the theme areas shown to be important to donors and partners. They relate to the “proof of concept” that prompted the ICT pilot project and demand an interpretation of the processes and outcomes of the pilot in the light of future possibilities.

19
4.1. Evidence based interpretation and judgement

The Research questions differ from the “Project Purpose” questions, in that they are forward looking, future thinking. As such they cannot be a statement of what has happened but are a hypothesis, an interpretation or judgement of what might happen.

The ICT pilot project is likely to demonstrate or illustrate a concept that provides an interpretation of what factors might affect the scaling or mainstreaming of this concept. While these drivers and barriers are evidence based, it is a matter of interpretation and judgment as to whether they may enhance or hinder a mainstream programme. The assessment of the pilot from a forward thinking perspective can present the key factors that led to its particular outcomes. The assessment may then suggest ways in which these factors could affect a mainstreaming activity or a scaled programme. In answering these questions, the assessment is interpreting data. A forward thinking commentary should be based on evidence but is not in and of itself a self evident presentation of facts and data.

4.2. Research data

The contribution of the assessment is to identify drivers and barriers that will set the terms of reference for feasibility studies for mainstreaming and scale programmes. However, in order to confirm the weighting or importance of each driver or barrier, there may be requirement for some extra data as part of the assessment. These may be local contextual factors that can sharpen the forward thinking commentary.

The following paragraphs discuss the two Research questions proposed in Chapter 2. However, as stated in that chapter the exact Research questions that an ICT pilot project will be attempting to answer will have been discussed at the commissioning of the project, with reference to the current infoDev strategy.

4.3. Is there an identifiable relationship between the outcomes of the ICT pilot project and the processes that might lead to the achievement of the Millennium Development Goals (MDGs)? (Impact)

Regarding the question how does the ICT pilot project relate to the MDGs:

For instance: An ICT pilot project may wish to demonstrate the influence of computers on a school. It may show how the addition of a computer to a school changes the motivation of teachers. It can record data on how many pupils use it and their subsequent change in test scores or computer literacy. As such it is a contribution of evidence on how computers might affect educational needs in school. However, the pilot may have found that there was initially resistance to the computer by the head teachers (in the 5 pilot schools), and that in 3 of the 5 schools the unreliable electricity meant that the computer was only working on average 5 hours a week.

The improvement of test scores and the increased motivation in teachers are indicative of drivers of change that may occur if there was a “computers in schools” mainstream programme. The head teachers’ reactions and the electricity supply problems are indicative of barriers that may prevent mainstreaming of ICTs in schools. In this case the pilot has provided evidence of a number of drivers and barriers for a larger programme.

Taking the example of head teacher resistance again, the difference between extra work undertaken as a part of the assessment, and the beginnings of a feasibility study may be illustrated from the above example. Imagine that the project is hampered by “head teacher resistance”. The assessment may choose to include interviews with the district educational authorities to gather wider opinion from informed sources and/or visit other schools and take a sample of opinions from those head teachers.

This extra data may inform the overall interpretation as to whether “head teacher resistance” was an isolated barrier specific to that particular school or project, or is likely to be a general barrier that would affect a scaled replicated project.

The feasibility study should attempt to gather informed opinion from stakeholders throughout the educational system of the nation as to whether “head teacher resistance” is a critical issue and if so how it may be overcome in the larger project design.
The MDGs point to a set of desired first-order changes in the situation of developing countries: fewer people in absolute poverty, fewer women dying in childbirth, more girls in school, etc. Yet they presume, and fundamentally depend upon, a deeper set of changes, such as higher and broader economic growth in developing countries, more capable and responsive government institutions, better policies, stronger voice for the poor, etc. These deeper changes depend in part on actions that are not directly associated with any one MDG but are fundamentally enabling of all the goals (improving the functioning of developing country markets, enhancing government capacity, mitigating the risks that particularly affect the poor, enhancing the efficiency, openness, and fairness of trade, etc.).

This acknowledges that the MDGs are a “set of desired first order changes”. These include economic growth, pro-poor growth, government capabilities, market responsiveness, participation of citizens in poverty reduction strategies and similar. Therefore the relationship between the pilot project outcomes and the MDGs should be described in terms of the actual changes in the wider social and economic environment and the potential changes that might arise from a scaled project.

4.4. What conditions are needed to replicate or scale up the project, and what might be the impact of doing this? (scalability)

It is important to distinguish between replication and scale. A pilot project may be replicated in order to test the Research questions under a different set of circumstances. Another pilot project may be established, with the intention of further lesson learning, or priming for an expanded project. By contrast, scaling up a project often means replicating the outputs of a pilot over a wider area in order to expand or extend the outcomes of the pilot to more beneficiaries.

However, there are many occasions when scaling a project may require a different set of outputs.

For instance, a particular type of pilot Telecentre may be replicated as a ‘one off’ in a nearby town. The inputs and outputs for setting up the Telecentre may be almost identical to the pilot project. However, to create a national network of Telecentres throughout the country would require outputs in terms of national strategies, co-ordination exercises, financial mechanisms, awareness raising, etc. This is a scaling project.

As discussed above, the conditions that led to the outcomes of the pilot may or may not be applicable when discussing a scaled and replicated version of the pilot. The assessment must answer a key Research question – under what conditions can this pilot be scaled and replicated, and would its outcomes be similar?

For instance, a pilot project may change the market dynamics for farmers in a limited geographical location. The gains made by these farmers however might be due to a new-found ability to access preferential sections of the market rather than through traders actually changing their prices. Scaling the project therefore might not extend the economic benefits since all farmers would now be able to access the preferential sections and the mean price would remain unchanged across the whole market.

The ICT pilot projects are specifically involved with innovative ways of working. Therefore the findings should speculate how a scaled and replicated project would create changes in the markets, government capacity, mitigate vulnerabilities, etc.

Since the potential for replication and scale is a key question for infoDev, the assessment should specifically consider:

- Was this a suitable pilot?
- Did the right conditions exist?
- Can the right conditions be created?

The study should present a discussion on the relationship between the social and economic environment and the potential for scale and replication.

Issues for consideration:

- The policy and regulatory environment for ICTs (current and in the pipeline).
- What processes for consultation and communication exist?
- Has there been strong beneficiary and stakeholder involvement during the pilot?
- What are the identified needs of stakeholders and beneficiaries?
- Is there clear evidence of demand that is relevant to poor...
people’s lives, such as expressed in the project objectives, from the life of the project and through the impact study?

● Is there an understanding of the key factors that enabled the original project to work?

● What identifiable project outputs can be promoted? This might be a material input, a decision tool, a new or adapted livelihoods practice, or a body of knowledge.

● Have the pilot outputs been validated by relevant users?

● What outputs (policy changes, ICT products, efficiency gains, livelihood strategy) show a definable competitive advantage when compared to current user practice or at a scale appropriate to target users?

● Is there evidence of buy-in and capacity of local organizations to take things forward?

● Was a dissemination (as opposed to a public relations) strategy or set of activities put in place during the lifetime of the project. If so, is there evidence that some pilot dissemination activity has already been done?

● Where national legislation and procedures apply, does registration of the ICT system or application need to be achieved?

● What impact might a scaled version of the pilot have in a new environment (different part of the country, region etc)?

4.5. Issues raised by previous case studies

In various case studies a number of lessons have been learned. These may need to be covered as a subset of issues in the assessment. Annex 16 presents the main lessons from three publications - infoDev Case Studies, the DFID project Sustainable ICTs, and Bridges.org (Real Access Criteria).

4.6. Sharing the outputs of the assessment

The components outlined above will help ensure that the outcomes of data and interpretation collected during an assessment can be of value to infoDev, its donor and partners. The output of the assessment is research that should be shared among the donor community. infoDev will have specific knowledge-sharing activities as a part of its overall strategy and it is important that the outputs of the assessment feed into that knowledge sharing facility. The outputs of the assessment are a part of a suite of knowledge-based services for donors and partners to draw on. However, studies on research communication suggest that multiple outputs are required to fit with different audiences, and the Task Manager should ensure that opportunities for knowledge sharing are used both during and after the assessment.

Chapter 5 onwards presents the steps a Task Manager should take to commission and manage a project. Provision for sharing the outputs of the research should be in place from the outset because it is central to the assessment. This is the subject of the last chapter.

The project team for the ICT pilot project “Putting ICTs in the Hands of Women of Kanpur and ‘Chikan’ Embroidery Workers of Lucknow” reviewed the Framework. The project based in India aimed to address three key questions:

● Can ICTs improve the capacity of women engaged in the informal sector to increase their incomes and/or enable women to enter the informal sector and generate sustainable livelihoods?

● Can ICTs improve the capacity of women engaged in handiwork trades, such as “chikan” embroidery, to increase their incomes?

● Can ICTs improve the capacity of “chikan” workers to engage in alternative sources of livelihoods within either the informal or formal sector, thereby improving their ability to achieve sustainable livelihoods given the over-saturation of workers in the “chikan” industry and the associated declining returns?

These were the “Project Purpose” questions. After reviewing the Framework, the team had a workshop to determine their applied research “scale” question. They determined that this project could make an important contribution by addressing the applied research question:

● Could this project be scaled up in other communities, especially Moslem communities, within and outside India, and, if so, what critical success factors are necessary to improve likelihood of success and of sustainability?

The critical success factors identified by the project team concern the quality, content and organisation of the training program, the market opportunities and market linkages, the role of active outreach in the community and the role of women in society with its implications on working patterns. For a scaled programme each of these factors would have to be investigated.
Section 2 – Managing an assessment of ICT pilot projects

5. Overview of managing an assessment

This section suggests the steps necessary to put in place an assessment of ICT pilot projects.

It does not seek to provide a comprehensive discussion of Monitoring and Evaluation and assumes the contracted researcher has the skills and capacity required to gather evidence in an appropriate way and interpret it from a forward looking perspective. However, the document gives guides and pointers to the Task Manager for managing the process.

The intention of the Framework is to work with ICT pilot projects specifically commissioned to fill knowledge gaps. As such, any ICT pilot project will be developed with a specific research hypothesis in mind, and specific Research questions should be created at the proposal stage. The Framework discusses how to set up an assessment that incorporates both standard monitoring and evaluation requirements and answers specific Research questions.

The steps to be taken in commissioning an assessment that will fit the infoDev strategy can be represented on a diagram as shown. The two main components of the Framework, namely the “Project Purpose” questions and Research questions are elements that apply to every step.

The next chapter onwards presents the application of the Framework to newly commissioned projects.

If this Framework is used by other agencies it might be applied to existing or recently completed ICT pilot projects. Chapter 13 discusses its use in this scenario.
6. Engage with Grantee - Negotiating the ICT pilot project to include applied research.

The Task Manager should determine from the infoDev strategy and the resulting identification of knowledge gaps, whether a ICT pilot project might yield valuable findings regarding these gaps.

If an ICT pilot project is to be commissioned in response to a general call for proposals or by specific invitation, it is best that as a part of the planning process, the Task Manager engages with the implementing agencies (Grantee) and possibly other stakeholders very early on. This is to put in place the necessary resources required for undertaking project monitoring and evaluation, and for answering the Research questions specific to the knowledge gap.

For these negotiations the Task Manager should have a clear expectation regarding the assessment of an ICT pilot project.

What does infoDev want from this assessment? As a partnership intent on learning and documenting lessons that will be valuable in mainstreaming ICTs it is about:

- Context – if the project succeeded because of special conditions can it then be scaled and replicated?
- Looking beyond the obvious.
- Gathering a mix of data, and stories, including qualitative and quantitative data in order to support the case that ICTs can add value to mainstream development programmes.
- Interpreting the outcomes from a forward looking perspective.

Pilot projects tend to be conducted by a diverse range of Grantees. In many cases the Grantee may not have the capability to both execute the pilot and to undertake applied research. Experience shows that it is rare to find research capability in the same institutions or organisations that undertake field implementation of development interventions.

It is important to negotiate the M&E system that will answer many or most of the “Project Purpose” questions. Ideally this should be a part of the Grantee organisational setup. It should be the Grantee’s responsibility to put in place an M&E system that provides for accountability and learning at the project level. This will be an important step for the Grantee because it affects their long term capacity and capabilities.

Although an M&E system may be in place, applied research requires a further skill base to analyse and interpret data from a forward looking perspective. This may not be available from the Grantee and provision may have to come from a special section of the Grant. Negotiation must ensure that the Grantee is a willing participant of the assessment, both M&E and applied research. While some Grantees may be familiar with evaluations and co-operate, others might see it as a threat. There will be a considerable difference between a willing and unwilling participant, and negotiations should seek to explain clearly the role of the overall assessment system and in particular the role of any outside researcher.

This Framework makes the assumption that the best assessment studies will be those where the Grantee is not just a partner in a donor driven process but will have the commitment to lead it, creating a Grantee-centric process.
7. Determine roles and responsibilities.

The assessment will be undertaken by a combination of the Grantees project based M&E system and by extra activities and interpretation of evidence required to answer the Research questions.

We have noted that the Grantee should be asked to put in place a reasonable monitoring and evaluation system as a part of their proposal. This is standard good practice for all development projects. It is important for the Grantee both in terms of accountability to infoDev, for keeping the project on track (formative data that allows the purpose to be fulfilled) and for lesson learning (summative data that informs future similar activities).

This M&E system may include participatory processes with the clients, surveys, internal evaluation by the project stakeholders or an external evaluation by an outside party. The latter is often preferred in order to get an independent view, but the former activities tend to encourage learning within projects. Annex 14 offers links to texts on good practice M&E.

In order to undertake the applied research alongside the ICT pilot project, it may be necessary to bring in a researcher with specialist skills. While the Grantee may have research capability, a consultant might need to be commissioned to undertake the more comprehensive assessment of the ICT pilot project and its contribution to the knowledge gap. In this case the Task Manager will need the Grantee’s full co-operation. With this in mind the Framework recommends that the Grantee is involved in the call for bids to provide the research capacity required for the assessment.

Roles and responsibilities:

- Overall responsibility and accountability typically resides with the commissioning Task Manager. This includes responsibility for control over the assessment process, guidance throughout all phases of execution, and the approval of all deliverables.
- The Grantee is responsible for its own M&E in order to achieve the Project Purpose, the day-to-day management of operations, regular progress reporting to the Task Manager as well as co-operation with any external researchers. It may also be asked to assist in local administrative arrangements.
- Researchers (who may be independent consultants, academics or an attachment to the Grantee) are responsible for working with the Grantee, gathering extra research data required, interpreting results and preparing the assessment report.

The assessment team should take joint responsibility for sharing the knowledge gained as widely as possible, but infoDev will remain the main outlet for dissemination of research outcomes to its donors and partners.

Researchers should be brought in as soon as possible after the initial negotiations with the Grantee. They will want to discuss alongside the Grantee the specific Research questions, and identify how suitable data and evidence may be gathered.
8. Negotiate the Research questions

We have said that the Grantee organizations should put in place their own M&E systems as part of good development practice as well as providing for their own future learning at project level. Nevertheless we have acknowledged that the priorities of infoDev in using these innovative ICT pilot projects is to fill identified knowledge gaps. When negotiating the Research questions, however, needs of the Grantee and infoDev must be kept in balance.

Once a clear negotiated position of common understanding is held in principle, the detailed Research questions should be jointly decided on, as should the framework chosen to determine the means and methods for collecting and interpreting the necessary evidence.

These negotiations should draw on (as a minimum):

- The current infoDev strategy
- The knowledge gaps identified by infoDev
- The original proposal or response to a call for proposals from the Grantee

The discussions should use the Framework to:

- Determine the Research questions being addressed
- Hypothesize the detailed and specific Research questions that might be addressed by the pilot
- Determine the type of data required to judge the validity of the hypothesis

The latter decisions regarding the type of data required may be subject to further iteration as the methodologies for the assessment are put in place.
9. Plan the assessment details

Once the assessment team has been commissioned it should plan the details with the Grantee.

The planning should start with a discussion on how the “Project Purpose” and Research questions apply in this case.

This should lead to a specific discussion on which stakeholders need to be included in the assessment.

Stakeholders for the ICT pilot project itself may include staff of the agency, the local community of clients and local authorities. However, there may be a need to include a wider range of stakeholders to understand the pilot from the research point of view.

For instance, a pilot which includes an educational institution may need to include interviews with national educational authorities to understand the role of the pilot in the policy context, and in order to be able to interpret its impact from a forward looking perspective.

Once the stakeholders have been identified, Chapter 10 can be used to guide the selection of tools required to gain credible evidence. The planning needs to take into account who will undertake the specific gathering of evidence. Part of this is a discussion of which parts of the assessment should be considered M&E (for the Grantee to undertake) and what are specific to the applied research (which may require extra resources).

The plan should result in a timetable of activities and other logistical details.

The team will also need to agree on a quality control system to protect standards. The main international standards for a quality assessment can be summed up as:

- **Utility**: Seek to ensure that an assessment will serve the information needs of intended users.
- **Feasibility**: Seek to ensure that an assessment will be realistic, prudent, diplomatic, and frugal.
- **Propriety**: Seek to ensure that an assessment will be conducted legally, ethically, and with due regard for the welfare of those involved in the evaluation, as well as those affected by its results.
- **Accuracy**: Seek to ensure that an assessment will reveal and convey technically adequate information about the features that determine the worth or merit of the programme and its forward perspective.

The planning should include not just the approaches used but what the deliverables will look like and how they may fit into the knowledge sharing activities of infoDev.
10. Gather credible evidence – Approaches and tools

All project assessment will use a mix of data that includes a combination of qualitative and quantitative tools. This will provide the project description and answer both the “Project Purpose” and the Research questions.

The assessment will apply various approaches that will probably focus on the impact of the project on the primary beneficiaries.

This chapter suggests some approaches and methodologies for ICT pilot projects based on current experience. However the following is presented as a guideline to assist discussion and is not intended to be a comprehensive summary. It will be important that each assessment uses the approaches and methods that will best yield the required evidence to answer the assessment questions.

10.1. A general word about evidence

Analysis and interpretation of evaluation data is usually about comparison. Ideally a researcher will want to make a comparison between historical baseline data and the current data. Alternative comparisons can be made between the client group and an equivalent control group and may also be between disaggregated data from within the community (educational, gender, wealth differences). Assessments should either attempt to identify change associated with the pilot project through perception (peoples’ impressions of change), or demonstrate the impact of the pilot on differentiated groups of clients.

The ICT for Development Community has predominantly relied on case studies and anecdotal evidence regarding impact and lesson learning. This Framework is intended to help generate more rigorous evidence regarding the impact of ICT pilot projects. There is a role for anecdote and minor case studies within the context of gathering valid quantifiable parametric and non-parametric data. This qualitative data can add useful information to the assessment and offer insights into the processes and causality that led to the outcomes. One of the newer methods being used by bilateral agencies is “Most Significant Change” (MSC). This qualitative system asks stakeholders the basic question “What has been the most significant change?” It is a relatively simple method that yields valuable qualitative data and can be applied to any of the projects.

Having drawn attention to the need for a mix of quantitative and qualitative data, the following considers the most appropriate methods for each of the four categories, previously mentioned in chapter 3.1.

10.2. Enabling environment (ICT)

These projects have a specific purpose of changing the enabling environment (i.e. projects that attempt to influence or change the regulatory environment, policies, legal framework, awareness among policy makers, or the public (informed by the media).

These assessments should be treated as assessments of changing behaviour. Depending on how easily the recipient community can be identified, the appropriate approaches are Knowledge, Attitude, Practice and Behaviour Surveys (KAPB), Tracer surveys, a Delphic survey or any combination of the three.

KAPB Survey

This is a relevant tool where a coherent and identifiable community exists. An identifiable community may result from a workshop or conference and the “Project Purpose” and the Research questions can be applied to participants as part of a baseline and as a follow-up.
This involves significant cost choices. A formal written survey is the least cost option and could be applied to a community of decision makers. Experience suggests, however, that formal surveys produce low returns. Face to face interviews are likely to be expensive but generally yield key information. A compromise may be achieved by applying face-to-face interviews at key gatherings.

KAPB survey design is based on the key behavioural changes expected. Best practice suggests that the survey is designed in two parts. The first is a series of semi-structured surveys to identify the key issues. The key issues can then be developed into a more formal questionnaire that could be applied to a wider sample.

For instance, until very recently many decision makers seem to be unaware of the potential benefits of Open Source software. A pilot ICT project may have produced a number of outputs such as briefing notes or seminars targeted at the decision makers of a particular country or group of countries. Focus groups at the start of the project may have identified the key issues – perhaps that the people believe that the software is unreliable or unstable. The project may have sought to address this issue and reassure decision makers.

After identifying the issues through semi-structured interviews, the baseline KAPB survey might ask people to score or rank their opinions on the reliability and stability of open source (Knowledge), make a comparison of this to their opinions with proprietary software, and most importantly ask about their use of software (Practice and Behaviour). The questions can be semi-closed questions such as “Do you believe that Open Source Software is reliable enough for everyday businesses to use?” with the possible answers yes, no, don’t know. A more subtle approach is to use a scale response with “closed-ended” questions such as “In the context of normal day to day business, how reliable do you feel Open Source Software is?” The scale might be “very reliable 5, somewhat reliable 4, reasonable 3, slightly unreliable 2, very unreliable 1.”

Other questions might explore their belief in the context of different uses – government services, critical business applications, etc. It should also explore the difference between Knowledge (belief that it is reliable) and Practice and Behaviour (whether they actually use the software). The end of project KAPB could then be compared to the baseline. Any changes that had occurred may or may not be directly attributable to the project outputs and further qualitative research may be needed to clarify why the changes occurred.

Tracer Study

Where there is no readily identifiable community of users, such as in the case of publications, there is an even greater challenge to identify impact. An approach would be either to identify a community by drawing on records of who received the publication, or take a random sample of senior decision makers in the relevant field.

A Tracer Study would follow up on the users of the publications requesting details of how they had used the information to inform their decisions.

Delphic Survey

Where no community of users can be identified it may be possible to undertake a Delphic Survey among experts in general to identify the key constraints. The Delphic technique is best used to identify constraints and opportunities as identified by experts in a subject area. This is unlikely to yield much direct data on the impact of a particular pilot, but it might illustrate the role of the pilot in the minds of experts, and in particular could be used to outline the potential for further pilot or scaled activities. It is intended to show the consensus of views of a community and in that way becomes forward looking.

In an example of the use of Delphic Surveys for project preparation the DFID (UK) funded Catia project came to the following conclusion:

Statement: Taking into account all major cost elements, Open Source Software (OSS) environments in Africa have become significantly less expensive than proprietary software (PS) environments. This statement was regarded as very important, especially to economic growth. Most respondents felt this statement would become true in the 3–5 year period. This question highlights several issues that make it very difficult to predict cost trends in OSS vs. PS environments. Comments included:

- Pirating copies of proprietary software. In most countries, both Government departments, NGOs and CSOs, Schools and Universities distribute and share proprietary software. It starts with casual users of illegal copies, piracy for private and non-profit use, and letting them use it makes them more likely to depend on it at work and to spread around the demand for it. Pirating is about the safest crime.
- The more widespread OSS adoption, the greater will be the perceived threat in respect of proprietary software manufacturers – which should have a positive effect on reducing pricing on proprietary software.
- Partly due to the growing popularity of OSS, proprietary software publishers such as Microsoft have started giving away software to certain market segments, for example schools.
Other elements need to be taken into account such as user interface/ease of use, technical support and training, etc. Lack of technical expertise that comes from not being part of the product creation process. This lack of expertise results in costs that dwarf those of the software itself. Intangible costs such as frustration due to lack of competency to secure support.

Real cost advantages will become more apparent when there is more whole-scale adoption; there is not enough deployment of OSS to ascertain the variables required.

Possible directions: Assuming no piracy, there seems to be a strong need for a comprehensive cost model to assist decision makers evaluating comparative costs of OSS vs. proprietary software into the future. Particularly because there are detailed cost comparisons in the corporate environment and based on US cost factors that suggest little differences in cost. Models are needed that take into account comparative licensing costs, labour costs, etc.\(^\text{15}\)

10.3. Take up and provision of ICTs

This relates to projects with a purpose to specifically encourage take up and provision of ICTs by the ICT sector. They may be aimed at encouraging private (and to a certain extent public and donor) sectors to take up new ICT opportunities, extending ICT Infrastructure and applications.

In these projects the ICT pilot project may have trained technicians or specialists in specific technologies in order to create capacity for the ICT sector. They may also have had a component that installed a particular technology (and trained people to operate and maintain it).

**Tracer Studies**

Tracer studies on participants are appropriate where the ICT pilot project involved capacity building of private and public sector personnel. Tracer studies should determine the participants’ use of the skills over the last few years. How have these skills been applied? The study should include some qualitative commentary on any opportunities and products in the market place that have been specifically created by the skills. If the project was on investment in technology, for example, what were the identifiable technologies and what benefit do they give the public?

**Quantitative data on technology**

This type of data might relate to capacity building of a specific technology, such as the promotion of an Internet Exchange Point (IXP) for a country. Here quantifiable data relating to its use and costs would be appropriate. Some statistics may be commercially sensitive and agreements on the use of this data may need to be negotiated.

**Caveat:** The quantitative use of a technology does not always demonstrate its role in the livelihoods of people. While it is not inherently limited, quantitative data alone can sometimes give an incomplete picture. For instance, the ownership of mobile phones and the geographic spread of public telephone lines are poor in Uganda and Ghana. Nevertheless, recent studies show that over 80% of people in the sample have made a telephone call in the last three months. While the usage is not high, people have embedded strategic calls in their communication system. Any description of quantifiable changes in ICT provision should be accompanied by qualitative description of how people are using such provision.

10.4. Service delivery efficiencies

A number of ICT pilot projects specifically seek to enhance service delivery efficiencies through new technologies e.g. working to enhance health services, education, local government, civil society, etc.

The key approaches in this category are Tracer studies to follow up skill training, and change in practice studies that would look at the changes in the service or in the delivery of the service.

**Tracer Studies**

Where the project is mainly about capacity building, Tracer Studies should be undertaken on any participants who were given specific skills. As above, this relatively simple approach would yield data about which skills were most useful and how the skills had been applied. Qualitative data would highlight the contextual conditions that assisted or prevented their application and the potential benefits from them.

For instance: suppose the project was about providing basic computer driving skills – the Tracer Study could focus on such quantitative data as number of hours spent at a computer, the uses of the computer, and the types of data accessed. Qualitative data will be important to identify the contextual circumstances and to explain the secondary impact and why ICT was used. For instance, the participants may not have used their skills because they were denied access to a computer. They may have used the computer only once, but it may have been significant if, for example, the computer had been used to reference a remedy for a disease that benefited several people.
Change in Practice survey
Where the project is about directly enhancing the provisions of the services, the approach should be based on indicators for efficiency, effectiveness, sustainability and relevance of the service. The survey method should include staff of the delivery service (e.g. the health workers, clinic staff) and the users of the service. Specific questions should be developed for each group. It is important to include senior staff, even those above the delivery point, to see if the change to the delivery service has affected macro policies.

10.5. Directly affecting Livelihoods

These projects seek to create opportunities for direct use of ICTs by the poor to enhance livelihoods – provision of market data, Telecentre public use of ICTs.

The key approaches for this category type are Household surveys and Knowledge Attitude Practice and Behaviour (KAPB) surveys.

Household surveys
These are formal surveys that can be conducted to gain a picture of the household assets. While this part discusses “Household” surveys, there are a number of differentiated levels at which the ICT pilot might apply – individuals, families, households, community. The term household is used here in its broadest sense.

There are standard designs of household level surveys. Among the multilaterals the most common ones are: Multiple Indicator Cluster Survey (MICS); Demographic & Health Survey (DHS); Living Standards Measurement Survey (LSMS); Core Welfare Indicator Survey (CWIQ). These are intended to monitor changes in the household status with respect to poverty indicators.

A baseline should be put in place at the project start. The use of a standardised household survey can be helpful in designing the baseline and baseline data may have been collected by other agencies. Most countries now have quite an extensive system of undertaking household surveys on a regular basis. The World Bank, as well as UNICEF and others subscribe to the LSMS set of studies and make the data available on a website. Other surveys (such as MICS, DHS, CWIQ) are often available, although the data sets tend to be less comprehensive than LSMS. In addition most health orientated NGOs conduct “Mother and Child” health surveys. These surveys can often yield a vast amount of information about the conditions of the households in low income communities. If the project has addressed basic needs then it may be possible to use general household surveys as comparative baselines (even if they were not specifically done for the project).

The potential disadvantage of using such standard surveys as a source of baseline is that they may not have included key questions that the pilot wishes to address. These surveys will, however, provide an overview of the economics of a household, and there may be linkages and connections to the projects key issues.

Household surveys should be prepared using the feedback from focus groups that discuss the indicators and issues in the proposed survey. It is not good practice just to apply a standard household survey without some beneficiary discussion first, since by the very nature of innovative projects, they will probably be addressing areas of livelihoods not covered by standard survey questions. There is a need to run focus groups to refine the survey design, in order to capture the necessary impact data and its linkages to the ICT pilot project.

Household surveys need not be expensive. Once the survey has been designed, students or casual workers can be trained to conduct the interviews.

Analysis can be simplified considerably by the use of technology, using standard packages such as SPSS and Epi-Info. The household data should be analysed by disaggregating the data. The analysis should include crosstabulations or use of the Mann-Whitney U test for differences between two independent groups (see below). Note that some variables can be independent or dependent depending on how they are treated. (e.g. education may be an independent variable for most projects but might be a dependent variable for a long term educational pilot).

Independent variables might include:
- Involvement in the pilot project
- Involvement in other similar activities (and non-involvement)
- Education
- Position in family (and dependents)
- Migration history
- Birth history

Dependent variables might include:
- Involvement in the pilot project
- Use of the pilot project outputs
- Involvement in other similar activities (and non-involvement)
- Income data
- Consumption data
- Saving and credit data
- Opinions and qualitative (non parametric) data

Note that even if the ICT pilot was primarily concerned with a specific Small Medium Enterprises (SMEs) sub sector, handicrafts, or fishing, the wider picture of household income still needs to be assessed, in order to convince the development community that one business sector is not increasing at the expense of household livelihood stability.
It is also worth noting that household surveys that seek to identify income and expenditure data can be very unreliable due to peoples reluctance to discuss such matters. This can be accounted for by the inclusion of subtle questions asking for the data in a more oblique way.

Knowledge Attitude Practice and Behaviour surveys. Similarly, KAPB surveys are often conducted by NGOs and local government and may be available for the project area. If the project specifically included targeting behavioural change, then KAPB surveys may be appropriate.

For instance, a project in Ghana and Cambodia has been piloting the creation and use of DVDs for health messages. The baseline knowledge of mothers’ behaviour regarding breast feeding, what to do with children suffering diarrhoea and safe motherhood, was provided through the normal KAPB surveys undertaken by the NGOs involved. Follow-up surveys identified the changes in knowledge and practice within the target population. They used the same KAPB questions, supplemented with questions (at the end of the interview) specific to the DVD – as to whether they recalled seeing the DVD and whether they enjoyed it, etc. The resulting data from over 400 households could then be analysed using parametric and non parametric statistics to show the linkages between those who had seen the videos and their change in behaviour.

It is important in formal surveys to ask questions about similar or identical subject in different ways and from different points of view. The following is an example drawn from from a series of household surveys conducted as part of a research project for DFID:

In the context of focus group discussions it is clear that one of the most highly regarded benefits of phone use is its ability to save time. This can be by avoiding unnecessary journeys, for example travelling to a trading centre to find the goods you want are not available, or the price is not right. People can be frustrated when leaving or sending messages to each other to arrange meetings, but using the phone allows people to make immediate arrangements, reducing the time taken to do an activity.

In a household or business survey, the benefit is included as a question. For example: “Indicate the extent to which use of phones has influenced each of the following benefits for you over the last 2 years?” One of the answers offered (based on focus groups discussions) was: Saving of time spent travelling. This type of question prompts the respondent to think of occasions on which they used the phone rather than make a journey, and they tend to give a strongly positive response.

However, this fails to put travel savings in the context of their overall travel schedule, and more importantly, in the context of other changes in their travel needs, which are independent of phone use e.g. changes in economic context, recovery from war etc. This can be checked with a question that needs to be asked independently of the context of phone use:

“How has your need to travel increased or reduced in the last 2 years?”

Note that this question was asked early in the questionnaire amongst questions relating to the respondent e.g. education, number of household members etc, before the questionnaire started to address issues relating to phone use.

Data from Mozambique illustrates how the two approaches generated complementary information. The index of benefit of phone use indicates that higher economic status categories (who use the phone more) enjoy greater benefit in terms of saving time, but the ‘independent’ index indicates that time savings are not in fact translated into a greater reduction in the need to travel; on the contrary, the highest status group exhibits an increase in the need to travel – presumably as a consequence of being the most economically active group.

<table>
<thead>
<tr>
<th>Change in need to travel*</th>
<th>Influence on saving time**</th>
</tr>
</thead>
<tbody>
<tr>
<td>poorest</td>
<td>3.65</td>
</tr>
<tr>
<td>poor</td>
<td>3.96</td>
</tr>
<tr>
<td>medium</td>
<td>4.37</td>
</tr>
<tr>
<td>rich</td>
<td>4.00</td>
</tr>
</tbody>
</table>

* range –2 to +2 (0 = no change).

** ordinal scale of 1 to 5 ranging from ‘not applicable’ to ‘large influence’.

This is not to say that use of the phone does not save time, but it does challenge the possible conclusion that phone use will result in a reduction in travel – the need to travel is determined by a number of other factors.
Community Communication systems.
One aspect of the livelihoods construct that may be of particular interest is where people source their information and how this relates to the changes resulting from the ICT pilot project. Standard household surveys do not include questions about information sources. The changes in the community communication can be assessed by adding appropriate questions to the survey (based on the focus group feedback) and undertaking disaggregated analysis of the data. The links between information exchange and the asset base may be important to investigate. For instance, many households within developing countries are multispacial, i.e. they include migrant workers who remit money to the main household. The main household may be dependent on this outside source of finance. Recent ICT studies have demonstrated the importance of such financial flows and indicated that it is an important area that can change significantly with the introductions of ICTs.

In determining the changes in information flow, the study should determine the importance of particular information. Do people have a preferred channel to access this information? The changes in these sources should be referenced and identified as to whether they are trusted, etc.

Participatory Appraisals
Participatory appraisal may be suggested by the Grantee as a suitable approach for gaining a picture of the household. Participatory appraisals are appropriate for the purpose based M&E. In the light of the infoDev strategy the focus of the Framework is on gathering evidence of the impact of the pilot project in such a way as to convince other development practitioners about mainstreaming. In this case participatory visual exercises can sometimes be unconvincing. However, quantitative data alone rarely paints a complete picture. Qualitative data is important for understanding the needs, context and outcomes of the pilot ICT Project. Some of the best qualitative data is generated by participatory exercises which have been designed to include the marginalized. If the Grantee wants to conduct participatory exercises as a part of the evaluation to learn from it as well as to encourage the community to take the innovations forward by sharing ownership of the results, this should be supported. However it should be noted that over reliance on purely participatory techniques can open the assessment to the criticism that they are “only stories” and did not provide evidential data that “proves” the impact of the pilot. For the purposes of evidence gathering for the Research questions, participatory appraisals should form part of an overall study that has both qualitative and quantitative data.

Outcome expectations
At the planning stage it is possible to engage the clients of the pilot project in defining their expectations for their project. This can include all stakeholders both within and beyond the project. The expectation should be based on a theory of change – what is expected to happen, who will be involved in the project and what events are likely to take place. The planning documents should include this discussion. Documenting the expectations and comparing actual outcomes at the end of the project can be a very effective tool.

IDRC have brought the basic idea of documenting outcome expectations into a semi-formalised package, which they have called outcome mapping. This should be considered as a possible approach within the ICT pilot projects M&E system.

Most Significant Change
The “Most Significant Change” method is a wholly qualitative process. It selects brief accounts of what staff at various levels consider to be the most significant changes taking place in their areas of responsibility within a fixed period. These are open-ended and can be either positive or negative. The advantages are that field-level staff are free to choose and describe what they think is significant. Staff at other levels are also free to select according to their own criteria and to reflect on what is important and why. The system avoids data overload through selection yet still preserves the freshness of detail.

Field notes and project interviews
Throughout the project, the project team will be taking notes, collecting and collating stories or points of interest. These are a valuable source of qualitative data and when available should be used to complete the picture.

Photography, audio recording and video
Given that ICT pilot projects are often about technology, it is surprising how few M&E systems include audio visual material. Photographs of a site before and after can often remind people of how far they have come and stimulate stories of achievement. Digital photography has made this easier to store and use as a part of reporting. Similarly, recording audio from clients of the project not only adds human interest to the assessment, but it may also capture detail that illustrates barriers and drivers that may be important to mainstreaming and scale. Digital video has become a realistic, cost effective and practical option in the last few years. The presence of a recording instrument can have an impact on surveys and interviews, and these instruments need to be used with caution. However, in general digital recording of the voice and images of the poor can be a valuable M&E tool.
11. Interpret the data

During the ICT pilot project, the monitoring and evaluation system will be feeding back qualitative and quantitative data to the project managers, who may then use this data to refine or adjust the project.

The objective of the formative feedback loop is to ensure that as much as possible within the constraints of context and implementation, the project achieves its purpose. In most standard M&E systems, there is a mid term review, where the implementors may stop and conduct a special gathering of data (mid term evaluation), and reflect on it in the light of the project plans. Given the fast pace at which ICT changes, this is particularly important in this type of pilot. The plans may have been made in a particular context, and this may have changed during the intervening period.

For instance, an ICT pilot project that is seeking to prove the concept that the use of a Very Small Aperture Terminal (VSAT) connection to the internet is a cost effective means of public access, may be overtaken by the extension of the national network. In this example, not only is the ICT pilot projects purpose now in question, but the contribution to forward-looking Research questions will also have to be re-assessed.

11.2. Analysis of Data

Where a survey or data has been gathered, it is important that this data be analysed in an effective way. Initial analyses usually include simple tabulation of the data, with summary statistics, such as mean values. For surveys, simple tables are produced, often showing the results to each question in turn. These initial results are only partly for analysis, they are also a continuation of the data checking process.

When presenting quantitative data, most data is presented as frequencies or means — eg that 70% of the women attending a training course found a job in computing afterwards. While this is encouraging, it does little to explain the pilot from a forward looking perspective. It does not tell us the critical factors that influenced such a success.

A number of qualitative sources may shed light on the critical success factors. Such qualitative data may be available through the instruments mentioned in Chapter 10. Field notes of project staff, an exercise in Most Significant Change, focus groups, KAPB surveys, Delphic Surveys, etc. The qualitative data needs to be analysed alongside the quantitative data, illustrating the critical success factors, the context, and the barriers and drivers of the project. There are a few obvious steps for handling qualitative data:

- Organise the data - Get the data into a format that is easy to work with. For example, notes from tape recordings will have to be transcribed.
- Shape the data into information — After looking at the data, assess what type of themes are coming through. This analysis is done by sorting. Note down the different categories or types of responses found. Coding of qualitative data can assist the links between data types.
- Interpret and summarise the information — It is best not to try to quantify the responses (for example, you cannot say “half the people said....”). Instead look for the range of views expressed.
- Explain the information — When trying to explain what the information means, it is advisable to discuss it at length with others in the team. It is always better to be cautious about leaping to conclusions or making assumptions, although this has to be balanced with the objective of the exercise — a forward-looking perspective attempting to answer the Research question.

However, in addition to the above, recent developments of statistical software has opened up new opportunities for handling data. To undertake a survey of several hundred people is a logistical challenge but can be undertaken with a relatively modest budget. However until recently analysing several thousand data points was time consuming and costly. Electronic handling of the data not only eases the checking of the data, but enables a deeper analysis. If there are sufficient data points, relationships between questions can be investigated. These can include:

- Tests of differences between groups (independent samples);
11.3. Summative M&E

At the end of the project, the Grantee and the project team will want to assess the project for its achievement of purpose. They will want to learn from the experience, to determine if the project has served their client communities, and how it might be improved in a second phase, or perhaps how it might be replicated. This assessment should be very factually based. It should draw on the evidence and data of whether the project was able to achieve its purpose, and the impact it had on the client community. The summative evaluation will provide much of the data required for answering the Research questions, but the Grantee should undertake its own learning review in parallel to the interpretation of data regarding the Research questions.

11.4. Applied research

The assessment’s emphasis is on the Research questions which need an interpretation from a forward looking perspective. The detailed Research questions will have been informed by the specifics of the ICT pilot project and the current infoDev strategy. In particular though we have noted that the Research questions should contribute to donors and partners’ understanding of how ICTs can affect wider development priorities. In the following paragraphs three language bridges are presented that should be used to ensure the evidence-based interpretation of the ICT pilot project is addressing donors’ and partners’ concerns in language that they regularly use.

11.5. Bridges to Mainstreaming

Is there an identifiable relationship between the outcomes of the ICT pilot project and the processes that might lead to the achievement of the Millennium Development Goals (MDGs)? (Impact)

In particular we have noted that the Research questions should contribute to donors’ and partners’ understanding of how ICTs can affect wider development priorities. In order for the outcomes of the assessment to be relevant and taken up, the Framework proposes there should be explicit use of various models and concepts used. These can be thought of as a ‘bridge’, placing the results of the assessment in language and concepts familiar to donors and their partners. The bridges for mainstreaming are: the Sustainable Livelihoods Framework (commonly used by DFID UK), sector guidance sheets and the Millennium Development Goals (MDGs). Language bridges are specifically designed to help people from different corporate cultures to gain a clear view of each others expectations.

Bridge 1: The Livelihoods Framework

Bridge 1: The Livelihoods Framework, used by DFID (UK), is intended to be a comprehensive framework for guiding development workers to consider the complex multi-dimensional factors that keep people poor. Evaluations of ICT pilot projects (directly affecting livelihoods) should use the language of sustainable livelihoods to describe the impact.

The Livelihoods Framework is an analytical tool at the household level and it can be related to policy and macro issues. The Livelihoods approach and poverty analysis can feed into the cross sectoral priority setting for poverty reduction, the sector planning, and the decentralized planning for district based delivery service.

Bridge 2: Sector Guidance sheets

infoDev will develop guidance sheets for the various major sectors in development. The sheets present:
● a summary of the indicators and evaluative criteria usually used in that sector
● a summary of the top lessons learned in that sector.

Where an ICT pilot project overlaps with another sector, the sector summary sheets are intended to guide the evaluation analysis and report. They are to ensure that the factors most discussed by professionals in that sector are presented in the evaluation, and that the opportunities for scale and replication are put in a relevant context.

An example of a Microfinance Guidance sheet is attached as Annex 19

**Bridge 3 – links to MDGs**
We note that ICTs are a part of the MDGs. Goal 8, Target 18 states:
“In co-operation with the private sector make available the benefits of new technologies, specifically information and communications.”

Indicators 47–48 for Goal 8, Target 18 are:
● Total number of telephone subscribers per 100 inhabitants
● Personal computers per 100 inhabitants
● Internet users per 100 inhabitants

However, almost all commentators agree that while the Goal and Target are worth aiming for, these indicators do not represent the role of ICTs in achieving the MDGs.

Annex 18 presents a table generated by DFID and picked up by the OECD, presenting how ICT may support the various MDGs. However, this is based on speculation and it is the role of the evaluation to add evidence and data as to whether these speculations are accurate. Particularly, attention is drawn to the processes that are working towards the MDGs and the role of ICT in those processes – eg efficiencies in the educational sector.

11.6. **What conditions are needed to replicate or scale up the project, and what might be the impact of large scale application? (Scalability)**

In addition to the above, there is a clear call for the evidence based interpretation to state what conditions are needed to replicate or scale up or out the project?

The draft infoDev workplan (2005/2007) identifies some of the interpretation required for answering “Scale” questions:

● **Impact at scale:** How can we assess what will be the impact of an ICT solution that has proved valuable on a small scale once it is taken to a larger scale? Are there effective ways to “test” at an intermediate level (e.g. taking a model from 1 village to 50) before devoting resources to a much wider rollout?
● **Enabling Conditions at scale:** Once an ICT solution is taken to scale, do broader enabling conditions (policy and regulatory constraints, institutional disincentives or rigidities, infrastructure, capacity, etc) become more determinative of success? Can we anticipate this in advance, or “tease it out” through intermediate-level experimentation?
● **Public and Private Resources:** If a pilot solution has been publicly financed, does that necessarily mean that public resources should be devoted to scaling it up (or vice versa?) How can private resources (both private investment and the resources of beneficiaries /consumers) be brought to bear at scale, including through new regulatory and business models? What are the gaps in the financial ecosystem in developing countries (venture capital, financial markets, etc.) that prevent ICT entrepreneurs from taking their innovations to scale?
● **Scaling Up What?:** Most importantly, we need to understand better what it means to scale up a solution. If it is really the impact of that solution that we want to achieve at scale (better income for farmers, more educational access for girls, more transparent and efficient local delivery of government services), is the pilot solution really the best candidate for impact at scale, or might another approach be more appropriate?

There should be a clear forward looking discussion about the potential of the pilot for scale and replication.
12. Share outputs for lesson learning

Sharing assessment outputs at various levels is of central importance. Although this comes at the end of the process, the research has been conducted to inform donors and partners and so every opportunity for sharing the outputs of the research should be taken. One of the weaknesses of many assessments generally is that they are not subsequently used to inform the development community of valuable lessons learned. Given the need for dissemination, the Framework suggests that all studies put the following outputs in place.

12.1. Local stakeholders

Most studies will be undertaken in the country of the pilot. While opportunities for replication and scale may lie in other countries, there may also be considerable potential for replication and scale within the country of the pilot. Face to face meetings and presentations have been shown to be an effective mechanism for communicating the results of research. The terms of reference should make provision for some form of presentation within the country of origin of the evaluation results.

12.2. Regional stakeholders

In addition to a local workshop or presentation, there may be the opportunity to present at a relevant regional conference. The TOR should make provision for one person who was involved in the pilot and the assessment, to present the results of the pilot and in particular the evaluation at such a conference.

12.3. Multiple outputs

At an international level, research on communication skills has shown that there must be multiple outputs from a study in order to reach different audiences. At an international level infoDev will be co-ordinating this but in order to make this task easier, the assessment should, in addition to its main technical report and executive summary, present three other outputs:

- A short article focused on the livelihood or service delivery changes of the project – suitable for submission to a magazine.
- Boxed anecdotes – half page interest stories that can be taken as a whole and put as a blue box example in other reports.
- A four page summary of the results of the evaluation with at least three photos and graphical presentation of the key data (evidence) generated.

The dissemination and use of the outcomes of the assessment to donors and partners of infoDev will be the responsibility of the wider infoDev knowledge-strategy. infoDev has a knowledge sharing component to its strategy and the assessment outputs should be fed into this strategy.
13. Differences when applying the Framework to old ICT pilot projects

The introduction stated that there were a few differences in the steps to be taken when applying the Framework to old ICT pilot projects (ie those that are already in progress, or have recently completed but their outcomes are ongoing). This chapter draws out the main differences.

There are four key differences between past or current projects and future projects. These are:

Proposing the research hypothesis.
With an existing project, it may not be possible to propose the research hypothesis. However, some existing pilots may be able to contribute to an identified knowledge gap, and therefore may be worth assessing. The first step for a Task Manager who may think that an existing project could contribute to a knowledge gap is a thorough examination of the project planning and reporting documents. This should be done before engaging with the Grantee so that expectations of an applied research assessment are not raised only to then be dropped.

Therefore the main change to the steps is in the addition of a new first step:
- Examine the project documents and determine if the ICT pilot might contribute to a knowledge gap.

To assist the Task Manager in this step, Annex 17 gives a checklist for the documentation to be examined before engaging with the Grantee.

Commitment of the Grantee.
Where a current or past project is thought to be worthy of investigation, it is then important to negotiate with the Grantee a clear understanding of why the assessment is being undertaken. When negotiating with a Grantee about adding to their current workload a summative/research action plan, there must be some incentive for the Grantee to undertake the extra work involved. Explaining the learning benefits of the assessment may be sufficient to obtain the Grantee’s commitment. A willing participant is important. Where the Grantee has wrongly perceived that the assessment is a belated “audit”, the outcomes of the assessment are unlikely to be of any use. It is therefore important that the negotiations really obtain the willingness and commitment of the Grantee.

Summative not Formative.
In a project that is near completion, it is not possible to introduce belatedly a formative M&E system. It is best to negotiate a summative/research assessment.

Availability of data.
Current projects may or may not have baseline data. It is possible that data from other agencies might be applicable as a substitute (e.g. household surveys). It is also possible to gain considerable understanding of the impact of a project without a baseline – by undertaking comparisons between groups that had differential exposure to the pilot, and by asking people to comment on the achievements and changes.

Determining the critical success factors
In piloting the Framework, the Lucknow/Kanpur evaluators found that the critical success factor (CSF) methodology was useful in making a rapid response to the applied research question.

In their case, each evaluator/implementer independently identified the crucial 3-5 things that they believe every scale-up of the project must do to be successful in gaining women participants from the Moslem community to the project Telecentres and train them in computer and vocational skills. The team leader consolidated the responses and distributed them back to the evaluators/implementers.

A facilitated discussion in which the evaluators examined the list of proposed CSFs came to a unanimous conclusion regarding the 3-5 CSFs for a scale-up of the project, i.e. the few key things that absolutely must be done for a project of this type to be successful. The discussion of CSFs was said to be lively and identified a number of key activities. It also provided insight into the complex issues involved in conducting a project of this type.
References

1. The strategy documents can be found at www.infodev.org. The exact location is not available at the time of publication.


3. infoDev’s Mission and Strategy A discussion paper for the infoDev donors’ seminar July 9, 2004

4. The current draft (Mainstream) key Research question is – “How can the ICT applications and services, appropriately adapted, serve as effective tools of core development objectives, particularly those expressed in the Millennium Development Goals?”

5. The current draft (Access for all) key Research question is “In a fast moving technological environment, what does the pilot say about how can we develop effective policy, regulatory and investment approaches and models that fully leverage the opportunities created by rapid technological changes and foster business creation and innovation?”

6. The current draft (Scaling) key research question is “How can ICT-enabled innovation and entrepreneurship programs contribute to development objectives?”

7. Impact, Effectiveness, Relevance, Sustainability, Efficiency – discussed more fully in annex 14

8. This approach reflects the increasing emphasis by many agencies on results or outcome based M&E in contrast to the older approaches of output or implementation based M&E


10. A checklist for the issues to consider is presented in Annex 22


12. While the following reference is health orientated, the following website gives a good picture of how to design KAPB surveys http://www.healthcomms.org/resource/ql-kaph.html For a non-health example of KAPB surveys see http://lnweb18.worldbank.org/ESSD/sdvext.nsf/09ByDocName/SurveyonKnowledgeAttitudesPracticesandBeliefsinStandardsinGoodGovernanceBASELINE/$FILE/Final+Report+ONE.doc

13. For those unfamiliar with how tracer studies can be used to trace policy development, we suggest http://www.odi.org.uk/RAPID/Lessons/Tools/Episode_Studies.html


16. For an example of household surveys available http://www4.worldbank.org/afr/poverty/databank/default.cfm


18. The IDRC package developed around the concept of evaluating outcome expectations can be found here http://web.idrc.ca/ev_en.php?URL_ID=26586&ID2=DO_TOPIC

19. Most Significant Change can be found at http://www.mande.co.uk/archives/200208000.htm

20. This is a slightly specialised field but can yield valuable analysis. More details can be found at www.ssc.rdg.ac.uk/publications/guides/cs5_indi.pdf


22. An overview of the CSF method can be found here http://www.w3.org/2002/ws/arch/2/04/UCSFA.ppt
Section 3 – Annexes

1. Annex M&E in the Bilateral donors

There is a wide array of literature on M&E, and there are a good number of handbooks or guidelines from infoDev donors and the global development community. The Terms of Reference called for a synthesis of the M&E frameworks of bilateral agencies.

The Development Assistance Committee (DAC) Working Party on Aid Evaluation describes an evaluation as being:

“The systematic and objective assessment of an on-going or completed project, programme or policy, its design, implementation and results.” In essence, evaluations offer a learning opportunity to find out about what is working, what isn’t – and what needs to be improved. Evaluations demonstrate integrity and objectivity in identifying valid, balanced and accurate results that are supported by the evidence assessed.

Evaluations can be formative or summative. Formative evaluations are usually undertaken earlier on to gain a better understanding of what is being achieved and to identify how the program or project can be improved. Summative evaluations are carried out well into implementation or ex post to assess effectiveness, and to determine results and overall value.²³

Most of the evaluation frameworks are written for mainstream developmental interventions. This means that the handbooks make the assumption that the project has clear achievable project logic, clarity of objectives, that the objectives are achievable through the completion of outputs and activities and that the objectives will make a significant contribution to longer term development goals. These assumptions therefore encourage various forms of “Results Based Performance Measuring”, favoured by USAID for a long time, and adapted in various forms among the donors. Indeed in July 2004, the World Bank launched a new book “Ten Steps to a Results Based Monitoring and Evaluation System” Kusek & Rist.

The innovative pilot projects of infoDev are more experimental and adaptive than “regular” projects. The distinctive nature of ICT pilot projects is that the outcomes are not assured. By their very nature, ICT pilot projects are attempting to be innovative in their use of new opportunities for information and communication, and therefore the outcomes are not guaranteed. There are very often unexpected outcomes that need to be identified and documented.

Since the availability of thematic evaluation handbooks is increasingly becoming common (e.g. Evaluation of Capacity Building Projects), this Framework is effectively a thematic framework for ICT pilot projects.

As an annex, to assist those who may be unfamiliar with the more established M&E frameworks, an annotated bibliography of some evaluation manuals for bilateral and multi lateral agencies has been made. This annex addresses
the standard questions on definitions, processes, concepts of M&E.

The pilots were characterized by innovation. In "How to — and How Not to — Evaluate Innovation" Perrin states:-

By its very nature, innovation is risky and in particular it is unpredictable.

- About which particular activity or intervention will work or prove useful or not
- Who will benefit
- When exactly
- Under which particular set of circumstances
- Whether the discovery and application will be as intended, or possibly of a quite different nature. 24

As discussed in the main text, five standard criteria are used in the M&E of a development intervention. These are:

- Impact
- Effectiveness
- Relevance
- Sustainability
- Efficiency

The Framework recommends using the same evaluative criteria for consistency with other agencies. However the nature of an ICT pilot project, being more of an innovation and experiment, can mean that some of the criteria are more relevant than others. The text below describe the criteria put forward in most M&E frameworks and then comments on their suitability for ICT Pilot Projects.

1.1.1 Impact

Impact is the totality of the effects of a development intervention, and also refers to effects in the longer term or to effects at the scale of societies, communities, or systems. 25

This is where the emphasis of an evaluation of ICT Pilot projects should lie. Pilot projects need to assess their impact on the lives of the people, and this is the main theme of this framework.

1.1.2 Effectiveness

Effectiveness is the extent to which a development intervention has achieved its objectives, taking their relative importance into account. 25

Pilot projects can indeed be held accountable to their stated objectives, but failure does not necessarily mean that some valuable learning did not occur, for example, about a new way of working. ICT pilot projects are not always cost effective because expenses are often disproportionate for innovative ways of working. To a certain extent the framework calls on the evaluator to predict effectiveness given scale and replication, rather than analyse the effectiveness per se of the pilot.

1.1.3 Relevance

Relevance is the extent to which a development intervention conforms to the needs and priorities of target groups and the policies of recipient countries and donors. 25

Pilot projects may be ahead of policy. For example, experimentation may be relevant to predicted needs or a currently small geographical area. As such they do not need to be part of national plans or Poverty Reduction Strategy Papers (PRSPs). Although they should conform to local needs, they may be exploring a need that only a small part of the population has at the moment. The evaluator needs to comment on the relevance of the innovative approach to the future including future national poverty reduction plans including PRSPs.

1.1.4 Sustainability

Sustainability is concerned with the likelihood that the benefits from an intervention will be maintained at an appropriate level for a reasonably long period of time after the withdrawal of donor support. 25

Other criteria that should be discussed both during planning and at the end of a pilot relates to the pilot itself. These do not have to necessarily work towards sustainability within the lifetime of the pilot. The evaluation should be answering this question from a forward looking perspective rather than based solely on an assessment of the end state of the actual pilot activities.

FACTORS AFFECTING SUSTAINABILITY

Sustainability is assessed by reviewing the risks and uncertainties faced by a project, and whether adequate steps have been taken to avoid or mitigate these risks. Ten factors affecting sustainability are generally recognized in the literature:

- social support (including continued participation of beneficiaries and local communities, robustness of grassroots organizations);
- technical soundness;
- government commitment (including of key central and local agencies and availability of operating funds);
- commitment of other stakeholders (including NGOs, local organizations, civil society and the private sector);
- economic viability (especially subsidy reliance/independence, agricultural prices);
- financial viability (including funding of rural organizations, role of cost recovery, capacity to finance recurrent cost, operational and financial self-sufficiency, and positive cash flows in marketing schemes);
- institutional support (including the legal/regulatory framework and organizational and management effectiveness);
- environmental impact and protection;
- resilience to exogenous factors such as price variability and market access, natural disasters and unstable security in the project area; and
- replication of a project approach as an indicator of sustainability.

The evaluator may use these ten factors, and others, to assess sustainability prospects. 26

44
To demonstrate this point, consider efficiency:
Take an example of a ICT pilot project applying an innovative communication system between a few health clinics and the District centre.

Efficiency is the relationship between means and ends. More precisely it is the ratio of the value of the results of an intervention to the value of the resources used to produce them.21

As discussed above, the cost of the pilot may be far greater than the cost of the same activities mainstreamed. Innovation by its very nature requires investment in learning. The cost effectiveness of a pilot has to be weighed in terms of forward looking future activities only, and a study of the cost effectiveness of the pilot should not be part of the evaluation.

context and people are going to be two of the most important factors contributing to success and failure27

These criteria form the basis of the evaluation. While they should be applied both to the current situation and outcomes, their application to ICT pilot projects should involve greater emphasis on forward looking potential than standard project evaluations. In order to express the relevance of these criteria to an evaluation of ICT pilot projects, the framework has proposed a set of key Research questions as one of its structural components.

We need to be careful not to automatically set evaluation questions based on the five criteria, but to develop the main questions that would give useful answers for improving (and learning from) the project. Accordingly, emphasis among criteria may be different.28

Although focused on the Project Purpose, nevertheless these questions should take into account the innovative and experimental nature of ICT pilot projects as a pilot for future wider application.

1.1.5 Efficiency

Efficiency is a relation between means and ends. More exactly, it is the ratio of the value of the results of an intervention to the value of the resources used to produce them.21

As discussed above, the cost of the pilot may be far greater than the cost of the same activities mainstreamed. Innovation by its very nature requires investment in learning. The cost effectiveness of a pilot has to be weighed in terms of forward looking future activities only, and a study of the cost effectiveness of the pilot should not be part of the evaluation.

context and people are going to be two of the most important factors contributing to success and failure27

These criteria form the basis of the evaluation. While they should be applied both to the current situation and outcomes, their application to ICT pilot projects should involve greater emphasis on forward looking potential than standard project evaluations. In order to express the relevance of these criteria to an evaluation of ICT pilot projects, the framework has proposed a set of key Research questions as one of its structural components.

We need to be careful not to automatically set evaluation questions based on the five criteria, but to develop the main questions that would give useful answers for improving (and learning from) the project. Accordingly, emphasis among criteria may be different.28

Although focused on the Project Purpose, nevertheless these questions should take into account the innovative and experimental nature of ICT pilot projects as a pilot for future wider application.

1.2 Cross Cutting themes

The infoDev strategy suggests at least two cross cutting themes:

● Impact – The strategy paper calls for evidence of impact, and this forms the central premise of this evaluation framework as discussed in the main text.

● Technological Change – The strategy paper also states: A key element of understanding the implications of these changes is exploring how the specific needs and demands of developing-country users can be addressed in innovative, locally-appropriate ways thanks to technological innovation.

This exploration by necessity should be considered a cross cutting theme for all evaluation discussions.

CHARACTERISTICS OF REPLICABLE INNOVATIONS

The Evaluation of IFAD’s Capacity as a Promoter of Replicable Innovation (2002) concluded that innovations that succeed in IFAD’s operations:

● build on and improve existing local technologies or approaches;

● address a widely shared need or problem of the rural poor;

● are simple to understand and to implement;

● are culturally and socially acceptable;

● are affordable to the rural poor in terms of financial and time constraints;

● are low risk, and do not endanger the basic survival of the poor; and

can be reversed if they do not work out.26

Apart from these there are a further two cross-cutting themes encouraged by M&E Good Practice:

Gender – A gender analysis is good practice for all evaluations. ICTs may be opening up new opportunities for addressing the gender imbalance in society, and this should be discussed.

In terms of the standard M&E criteria of efficiency, the project may be said to be costly given its service to a limited number of beneficiaries. However, as we have said above and will reinforce below, from a research point of view the project may have proven the concept that this innovative communication system can work, and has yielded valuable data regarding the costs and benefits of the system (to be used to answer future thinking research questions – see below). From this point of view the ICT pilot project has been cost effective – in yielding valuable research data.
**Environment** – An environmental analysis is important to many mainstream project activities. If pilot projects are scaled and replicated they may have an unexpected environmental impact – this should be discussed.

### 1.3. Practical advice

In practical terms, the following represents some of the key pieces of advice found in bilateral manuals.

- When the cook tastes the soup that’s formative; when the guests taste the soup, that’s summative. 29

**Partnership** is nearly always mentioned in evaluation frameworks, and there are bold statements such as:

- No development change is ever achieved in isolation, which is why the agency works closely with its partners when monitoring and evaluating outcomes. 30

UNDP states that the options include:

- Involving partners and other stakeholders in the selection of indicators and targets, in data collection and analysis, as participants in field visits or as members of an evaluation team;
- Using already-established data sources and statistics of key partner agencies, which helps reduce the costs of data collection;
- Working with partners to analyze outcome progress and determine how best to enhance their collective strategy. 30

**Stakeholder participation**

Early on the evaluator should develop a strategy that sets out how key stakeholders are to be consulted during the field trip. The mapping of stakeholders helps to ensure adequate coverage and representation.

**Be selective about information collection.** Simply put, not every tidbit of information needs to be collected to know what is going on. It is important to be selective in order to achieve optimal value, while remaining cost-effective.

**Stay receptive to better ideas.** Be ready to learn from the information being collected. Options may surface for delivering better results. Your mind-set should be receptive to intuitive, midstream decision-making that exploits potentially rewarding opportunities.

**Share what is being learned.** Opportunities for sharing what you’re learning with stakeholders (during information collection) should be exploited to build credibility and stronger relationships.

**Provide the agency with a complete picture of what is really happening.** Make sure that the agency management gets accurate, factual, balanced reporting from the field. Often, only ‘good news’ is received, while developing issues and problems are ignored. This approach can prove costly. 31

**Evaluation Design**

Design can be thought of as comprising a range of options that are characterized by their departure from the ideal evaluation design. The ideal design represents a theoretical circumstance that is typically unattainable in the sphere of development cooperation since it depicts the comparison of two groups that are identical except that one has been exposed to the investment. Evaluation methodologies are all characterized by their reliance on a comparative approach:

- Experimental or randomized designs try to ensure the initial equivalence of comparison groups by administratively creating them through random assignment. Randomization involves applying a probability scheme for choosing a sample using random number tables, computers, etc
- Benchmarking uses comparison groups to make causal inferences but does not rely on randomization for their creation. The investment group is usually given a and the comparison group is selected to provide a close match.
- With an implicit design, conditions in place before the investment was initiated are assumed. There are no formal control groups. How the investment is structured and the availability of sources of information can be important determinants in shaping the evaluation design. For example, in the absence of baseline data, evaluators may have to rely on the investment inception report, monitoring activities, progress reports or similar work by other donors for comparative assessments. 31

The first (statistical analysis that should be done) is correlation or regression analysis (see Hayes and Erickson 1982) where the dependent variables are indicators of goal achievement (like statistics on health status) and independent variables are size of the health-care labour force, for example, and information capability. Second, surveys may be directed at intermediate-level contributors to health care to determine the extent of their use of information and the consequences of that use in terms of health care. The second method is more practical because of the better quality of data on dependent and independent variables for regression analysis that it may produce. It is important to collect meaningful data that relate as closely as possible to the type of information studied and its role. 32

**Qualitative data collection** is intended to trigger an iterative, or spiral like, learning process. In other words, in the analysis of the information collected in one interview, certain aspects of that information may be unclear, and others may suggest additional facets of the topic that were not initially in the evaluation questions. In Quantitative data collection, the data analysis is done after the data collection is completed. In Qualitative data collection, one of the critical principles is that data collection and analysis should be done concurrently. 33

**Evaluative evidence** is based on:

- The explanation of causal links in interventions and their effect.
- Analysis from close-up, detailed observation of the development context by the investigator(s), which is part of empirical evidence.
- Analysis from research and review and other documents (secondary sources) relevant to the development context.
- The attempt to avoid any preconceptions in the assessment.
- Evaluative evidence does not, however, always include direct, detailed observations as a source of evidence.
- Good evaluations are empirically based.

Empirical evidence is verifiable information based on observation or experience rather than conjecture, theory or logic. Empirical evidence is designed to reflect:

- Validity of conceptual ideas or issues.
- Consistency in trends or patterns.
- Factors contributing to actual outcome(s) and impacts. 30
The five commonly used analytical techniques

- **Statistical Analysis.** Manipulation of quantitative and qualitative information to generalize results.

- **Non-Statistical Analysis.** Process of analyzing qualitative information, often in an inductive manner to gain holistic insights and address hard-to-quantify issues.

- **Projecting Longer-Term Outcomes and Impacts.** Analytically transforming measured direct results to estimate longer-term outcomes and impacts.

- **Use of Models.** Using specific, explicit, quantitative models to translate one quantitative result into another quantitative result (e.g., Simulation, input-output, micro and macro economic, statistical models).

- **Cost-Benefit and Cost-Effectiveness Analysis.** Summarizes net worth or value of the investment. Cost-benefit analysis compares monetary benefits with investment costs. Cost-effectiveness analysis compares results with costs (but results are not transformed into monetary units).

**CHARACTERISTICS OF A GOOD KNOWLEDGE PRODUCT**
- Designed for a specific audience;
- Relevant to decision-making needs, especially for country office staff;
- Available when the ‘window of opportunity’ for decision making arises (i.e. timely);
- Easily and quickly understood;
- Based on sound methodological principles;
- Delivered through recognized channels;
- Areas of uncertainty and their significance clearly identified;
- Accompanied by full acknowledgment of data or information sources;
- Provides information on both tangible and intangible products and processes of development;
- Available at minimal cost in terms of time, money and administrative costs.

---

**References**

24. How to — and How Not to — Evaluate Innovation Perrin 2000 [http://www.mande.co.uk/docs/perrin.htm](http://www.mande.co.uk/docs/perrin.htm)
27. P Norrish 2004 Framework Team
2. Annex References

Bilateral Agencies Evaluation Manuals.
These are a few specific references to enable the reader to access the literature on evaluation generated by the Bilateral and Multi lateral agencies. This is NOT intended to be comprehensive. Web references have been updated to October 2004.

Glossary of terms
Reference guide that provides an overview of the terms included in OECD members’ glossaries and database of terms and definitions in 15 agencies.

Overviews of Evaluation Criteria
A little dated, this paper established the now commonly adopted evaluation criteria.

This review examines the implementation and use of the Principles in order to assess their impact, usefulness and relevance. The Principles include: purpose of evaluation, impartiality and independence, credibility, usefulness, participation of donors and recipients, donor cooperation, evaluation programming, design and implementation of evaluations, reporting, dissemination and feedback, and decentralized evaluation systems.

Bilateral and Multi-lateral Agency Evaluation Handbooks
SIDA has recently, 2004, presented an easy to read manual, which covers the standard guidelines for Bilateral agencies.

The CIDA manual is very comprehensive, with a number of useful checklists.

Danida Evaluation Guide
Danida provide a pdf version of their guidelines.

DFID present a useful general document that covers the various tools for development. Given the need for the evaluation team and Grantee to be aware of the poverty reduction aspect of the ICT Pilot Project this may be a useful to an evaluation team.

"For experienced development personnel, this handbook should be regarded as an aide-memoire. For others, called on to use a particular skill or technique in a particular circumstance, Tools for Development may provide an introduction to issues that may arise and offer potential solutions."

USAID provide a comprehensive evaluation website:
http://www.dec.org/partners/evalweb/


The UNDP Handbook for monitoring and evaluating for results
A comprehensive in house guideline for UNDP. It clearly illustrates the difference a shift to Results based M&E makes to an organisation. A useful resources section gives clear pointers to resources.

UNESCO provide an online manual of easy to navigate web pages:
http://www.unesco.org/ios/eng/evaluation/tools/outil_e.htm

UNICEF also provide an online guideline that is easy to navigate:
http://www.unicef.org/evaluation/index_evaluation.html

EC evaluation guidelines

IFAD - a methodological framework for project evaluation

In July 2004, the World Bank launched a new book “Ten Steps to a Results Based Monitoring and Evaluation System” Kusek & Rist., however it is not available online.

W.K. Kellogg Foundation Evaluation Handbook
http://www.wkkf.org/Pubs/Tools/Evaluation/Pub770.pdf
This is a particularly readable handbook which provides a framework for thinking about evaluation as a relevant and
useful program tool. It was written primarily for project directors who have direct responsibility for the ongoing evaluation of W.K. Kellogg Foundation-funded projects.

In addition to the specific guidelines mentioned above, the Development Gateway keeps updated links to Evaluation resources:
- CGC M&E Documents
- Monitoring and Evaluation Plan
- About Evaluation
- Logical Framework
- Research Methods
- Indicators and Measurements
- M&E Methods and Tools
- Benchmarking ICTs
- Donor Agency M&E Websites
- M&E Handbooks and Guides by Donor Organizations
- Evaluation of ICT in Commerce, Private Enterprises
- Evaluation of ICT in Education
- Evaluation of Telecenters
- Evaluation of Research and Development
- Development Gateway - Monitoring and Evaluation (ICT Projects)

http://www.developmentgateway.org/node/317776/

An alternative gateway is the PARC site presented by DFID

http://www.parcinfo.org/guidelines.asp

MandE News is a particular resource for updated news

http://www.mande.co.uk/

A news service focusing on developments in monitoring and evaluation methods relevant to development projects and programmes with social development objectives.

Regarding the specifics of ICTs in Development

Norad have developed some guidelines for their staff. Information and Communication Technology (ICT) in development co-operation. Guidelines


UNESCO have presented “ICT indicators, evaluation and monitoring” mainly in Education

http://www.unescobkk.org/education/ict/v2/info.asp?id=10937

Regarding Accountability

Although the evaluation Framework discusses the learning aspect of evaluation, for future pilot projects the monitoring and evaluation can contribute to the accountability requirements of the World Bank.

http://www.worldbank.org/oed/oed_overview.html

The OED department is responsible for World Bank accountability. An individual pilot project is only one activity of the Trust Fund infodev, and therefore in itself is of marginal interest to the wider concerns of the Bank. However, by ensuring the future Infodev lesson learning evaluations adhere to the general quality criteria of Usefulness, Credibility, Transparency, and Independence, the outputs can contribute useful data into future OED reviews.
There are a number of criteria or factors that are said to affect the success of an ICT project that have been developed from case studies. The criteria tend to relate only to pilot projects which are in the category “ICT and mainstream sectoral strategies”, both delivery services and Livelihood changes.

infoDev case studies

infoDev itself conducted an analysis of some of its own pilot projects as case studies and concluded with the following “key lessons”.

Lesson 1: Involve target groups in project design and monitoring.
- ICT projects should empower local communities to create their own development content.
- Research the right partners for the project.
- Incorporate ongoing monitoring into project operations.

Lesson 2: When choosing the technology for a poverty intervention project, pay particular attention to infrastructure requirements, local availability, training requirements, and technical challenges. Simpler technology often produces better results.
- Innovative technology solutions can be used to great advantage in development projects when they respond to user requirements.

Lesson 3: Existing technologies—particularly the telephone, radio, and television—can often convey information less expensively, in local languages, and to larger numbers of people than newer technologies. In some cases, the former can enhance the capacity of the latter.
- Telephones and voice mail systems can add considerable value to the communication systems of poor people in the developing world.
- Internet technology is not a cost-effective choice for many ICT for development projects. The geographic coverage of mobile phone systems is often broader and expanding more rapidly than Internet availability (particularly in Africa).
- ICT for development projects should consider using television and digital video technology.

Lesson 4: ICT projects that reach out to rural areas might contribute more to the MDGs than projects based in urban areas.

Lesson 5: Financial sustainability is a challenge for ICT for development initiatives.
- Use existing physical facilities where possible.
- If a project will entail asset and/or loan repayments, avoid involving participants who do not have a sufficient financial base.
- Significant external funding is required to replicate most ICT projects.

Lesson 6: Projects that focus on ICT training should include a job placement component.

These lessons are based on a case study approach. Evaluations should comment on whether these lessons remain valid given the more detailed study.

The infoDev study continues with recommended Guidelines for ICT for Development Projects. These combine both the processes necessary for a good project, and the external conditions necessary for its success. Evaluations should draw their own conclusions from their own studies, but reference to these guidelines and a comment on their validity would be helpful.

Real Access Criteria

Among the Bilateral agencies, the “Real Access” Criteria have been adopted by NORAD and are favoured by a number of others. Developed by bridges.org it notes the breadth of conditions required for an ICT service to be successfully used by the poor.

These criteria describe the end state and external conditions in which an ICT based project might find a measure of success and sustainability. They offer an interesting checklist which may guide the part of the evaluation that describes the internal and external end state of the project. They do not attempt to include the project process i.e. how the people were engaged (entry and exit processes), the demand for services nor do they draw attention to the use of the ICT – the impact of the ICT resource on the peoples lives.

The checklist comprises:

1. Physical access – Is technology available and physically accessible?
2. Appropriate technology - What is the appropriate technology according to local conditions, and how people need and want to put technology to use?
3. Affordability - Is technology access affordable for people to use?
4. Capacity - Do people understand how to use technology and its potential uses?
5. Relevant content - Is there locally relevant content, especially in terms of language?
6. Integration - Does the technology further burden people’s lives or does it integrate into daily routines?
7. Socio-cultural factors - Are people limited in their use of technology based on gender, race, or other socio-cultural factors?
8. Trust - Do people have confidence in and understand the implications of the technology they use, for instance in terms of privacy, security, or cybercrime?
9. Legal and regulatory framework - How do laws and regulations affect technology use and what changes are needed to create an environment that fosters its use?
10. Local economic environment - Is there a local economy that can and will sustain technology use?
11. Macro-economic environment - Is national economic policy conducive to widespread technology use, for example, in terms of transparency, deregulation, investment, and labour issues?
12. Political will - Is there political will in government to do what is needed to enable the integration of technology throughout society?

Sustainable ICTs

Similarly www.sustainableicts.org analysed some 12 case studies, and presented another list of "key factors" that lead to successful ICT projects.

These factors are more to do with the processes involved in undertaking an ICT project.

1. Objectives - Clear objectives which are held by the majority of stakeholders.
2. Target groups - the groups of people to whom information will be made available need to be clearly identified.
3. Intermediaries - ICT are said to "disintermediate", however the case studies seem to illustrate re-intermediation rather than dis-intermediation.
4. Policy environment - ICT activities cannot be in isolation from the policy environment.
5. Institutional arrangements - Institutional sustainability is said to be achieved when prevailing structures and processes have the capacity to continue to perform their functions over the long term.
6. Key linkages - Any development activity cannot be undertaken in isolation, and any organisation cannot work without links to the relevant authorities and other organisations working in connected areas.
7. The project process - Sustainability is said to be closely associated with the planning process of an activity.
8. Capacity - The sustainability will be affected by the human capital available.
9. Technology - Sustainability of an ICT activity is likely to be strongly influenced by the technology used e.g. operation and repair may be critical to the success of the activity.
10. Finance - Replacement costs will form part of the economic sustainability, and cost recovery will encourage institutional sustainability.
11. Development benefits – overall benefits of the ICT activity should justify the costs.
12. Other factors: the case studies also drew attention to the role of language, literacy, content and information flow.

It is interesting to note that the issues identified as hindering ICT pilot project success were mainly concerned with the clients:

- Language.
- Illiteracy.
- Self esteem of users.
- Social power conflicts in users.
- Organisational Capacity of target group.
- Security and theft.

However, there were also more general hindrances such as:

- Not enough or poor quality equipment.
- Poor ICT infrastructure (restricting efficacy).
- Donor reluctance (funding ICT activities).
- Loss of technical personnel.
- Lack of technical personnel.
- Low purchasing power of users.

These lists provide some guidelines for the evaluation analysis but the analysis should not be restricted to them. The evaluation, in its deeper analysis of data, should be able to comment on both the process, the internal and external factors, end state and forward looking replication and scale, as described in the main text.
4. Annex Checklist on Documentation for Past ICT Pilot Projects

What were the project objectives in terms of poverty interventions, have they been met?

Stated project objectives  Are the objectives clearly stated in the proposal or project documents? Are they reported against in the final reports?

Indicators at the Objectives level  Were indicators set at the objectives level?

Discerned project objectives  Looking beyond the written proposal objectives – with hindsight or from your experience, would you say there were other objectives to the project? Since this project began, has other information relevant to the research question(s) that guided the design and execution of this project come to light?

Donor Objectives  Did you as the donor have an expectation that was not detailed in their proposal but you held? For example most infoDev projects are innovative; were there expectations that the project would be replicated “spontaneously”?

Implemennter objectives  Many organisations implement projects, not purely because they want to fulfil the immediate project objectives but because the project forms part of a wider organisational strategy. Are you aware of a wider organisational strategy? What role does/might this play in the final outcomes of the project?

Client (Beneficiary) objectives  In your understanding of the project, does it make assumptions about the motivation and objectives of the client (beneficiary)? From a client point of view do you expect any critical factors?

Mainstream development  What sectors do you feel the project applied to?

PRSP and National plans  Do the national plans or PRSP make any reference to items that the evaluation might relate to?

What have been the outcomes/impacts of the project both in the immediate short term and in the longer term on the full range of project defined stakeholders and beneficiaries? Have the project outcomes had an unintended impact on the wider social economic and policy environment?

Baseline data undertaken by the project?  Did the project specifically refer to baseline data that it has gathered?

Baseline data undertaken by others?  Did the project specifically refer to baseline data that is directly relevant to its outcomes?

Unintended outcomes  Do project documents indicate that there may have been some unintended outcomes, or do you discern that there may be some unintended outcomes (worth investigating further) that were undocumented?

What were the processes which led to the outcomes? What were the context and conditions that led to the outcomes?

Project narrative  Does the reporting document the challenges faced when implementing the program/intervention/project or activity (policy obstacles, lack of institutional support, lack of financing, technical limitations, etc.)? How were those challenges overcome or are being addressed?

Are the project outputs and/or outcomes sustainable, and under what conditions?

What conditions are needed to replicate or scale up or out the project?

Theory of Change?  Do you now have a clear picture of what the project was trying to achieve, and how it all fits together on a theory of change?

Is there an identifiable relationship between the outcomes of the ICT pilot project and the processes that might lead to the achievement of the Millennium Development Goals (MDGs)?

Development Goal & MDGs  How do you expect the project to have contributed to development in general – not necessarily in the lifetime of the project? Which of the MDGs do you expect this project to have applied to or made some contribution to? Or more precisely – which processes has the pilot contributed to that may fulfil the MDGs?

How ICTs can help achieve the Millennium Development Goals

The following goals and targets were adopted in the Millennium Declaration at the General Assembly of the UN in September 2000.

Goal 8 includes a target to make available the benefits of ICTs to all the world’s inhabitants. As well as this commitment, ICT can play a major role in achieving most of the other goals. The role of ICT for each goal is suggested in column 2. This text is designed to be used to compile information on best practices in using ICT to help achieve the Millennium Development Goals (MDGs) that would help development practitioners identify what works and replicate success stories.

<table>
<thead>
<tr>
<th>Goals</th>
<th>Role of ICT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 1:</td>
<td>Increase access to market information and lower transaction costs for poor farmers and traders; Enhance ability of developing countries to participate in global economy and to exploit comparative advantage in factor costs (particularly skilled labour).</td>
</tr>
<tr>
<td>Goal 2 and 3:</td>
<td>Increase supply of trained teachers through ICT-enhanced and distance training of teachers and networks that link teachers to their colleagues; Improve the efficiency and effectiveness of education ministries and related bodies through strategic application of technologies and ICT-enabled skill development; Broaden availability of quality educational materials/resources through ICTs; Deliver educational and literacy programmes specifically targeted to poor girls &amp; women using appropriate technologies; Influence public opinion on gender equality through information/communication programmes using a range of ICTs.</td>
</tr>
<tr>
<td>Goal 4, 5, 6:</td>
<td>Enhance delivery of basic and in-service training for health workers; Increase monitoring and information-sharing on disease and famine; Increase access to reproductive health information, including information on AIDS prevention, through locally-appropriate content in local languages.</td>
</tr>
<tr>
<td>Goal 7:</td>
<td>Remote sensing technologies and communications networks permit more effective monitoring, resource management, mitigation of environmental risks; Increase access to/awareness of sustainable development strategies, in areas such as agriculture, sanitation and water management, mining, etc.; Greater transparency and monitoring of environmental abuses/enforcement of environmental regulations; Facilitate knowledge exchange and networking among policy makers, practitioners and advocacy groups.</td>
</tr>
<tr>
<td>Goal 8:</td>
<td>Enable LDCs, landlocked countries and small islands to link up with the global market to accelerate their progression and full integration into the world economy. Distance working facilitated by ICT opens up opportunities to create service-sector jobs in developing countries in such industries as call centres, data entry and processing, and software development; Telecentres do not only provide access to telecommunications, they also create direct employment for men and women; Improve youth learning skills, employability to meet the challenges of the knowledge-based global economy of the 21st century. Provide online drugs databases.</td>
</tr>
</tbody>
</table>
infoDev Framework for the assessment of ICT pilot projects

Goals

– In co-operation with pharmaceutical companies, provide access to affordable, essential drugs in developing countries
– In co-operation with the private sector, make available the benefits of new technologies especially information and communications

Role of ICT

Combine low and high technology to achieve relative ubiquity of access to effective and affordable information and communication technology tools;

Promote digital literacy through e-learning;

Develop a critical mass of knowledge workers with the technical capabilities to provide and maintain ICT infrastructure.

6. Annex Example "Mainstream Summary sheet"

Template and example for sector or subject area guides (for infoDev Impact Studies)

6.1. Microfinance – poverty focus?
There are a wide range of studies on Microfinance, and there is considerable interest on how ICTs can enhance Microfinance. Finance for the poor includes savings, cash transfers, insurance and loans, each tailored to the different needs of poor people.

Impact assessment issues & lessons:
In this sector the following are considered the key factors that need to be studied to ensure that a project had a measurable impact and a measure of sustainability.

Factors that are said to affect impact

Country Context
- The macroeconomic, legal and policy environments seriously affect impact.
- Factors that adversely influence the ability of clients to benefit from financial services.
- Poor economic conditions.
- Weak social and physical infrastructure (education, health, roads).
- Corruption.
- Security concerns.

For Households
- Microcredit leads to an increase in household income.
- Loans and deposit services can result in diversification of income sources or enterprise growth.
- Access to financial services enables clients to build and change their mix of assets.
- Access to microfinance enables poor people to manage risk better and take advantage of opportunities.

For Individuals
- For women, greater control over resources leads to growth in self-esteem, self-confidence, and opportunities.
- Microfinance clients tend to have higher levels of savings than non-clients, important for building assets.

For Enterprises
- Enterprise revenues rise as a result of microfinance services, but not always where expected.
- Job creation in single-person enterprises appears negligible, but client households often create work for others.

Regarding microfinance institutions
- The length of time that an individual has been a client of an institution has a positive correlation with impact.
- Sustainable institutions ensure ongoing impact by providing permanent access to services.
- Clients’ initial resource base affects impact the impact of financial services on clients who begin with more financial, physical, or social resources tends to be greater than on clients who start from a very low resource base.
- Specific characteristics of financial products, such as transaction size, affect impact.
- Poor people are diverse and require a variety of financial services.

Implication for impact study of ICT Pilot project that include Microfinance
- Be sure to describe the country context in sufficient detail.
- What are the conditions of the clients?
- What are the services available to the client communities, and how coherent are they as a community?
- Where does the country rank on the Transparency International Index?
- Is security a high concern for the project?
- Have household incomes been assessed, by survey or participatory means?
- Does the data describe the diversification of incomes?
- Does the data describe the mix of assets?
- Has the impact study considered household risk?
- Has the study included a gender analysis, or data on women’s confidence?
- Has household data included savings?
- If the study is looking at enterprises, has it included the whole range of services provided?
- Have surveys enquired about creating work for others – employees, casual labour, “friends who help”?
- If ICT enabled Microfinance – for what time period?
- If ICT enabled Microfinance – was the access to those services consistent?
- Were there baselines that could be referred to?
- Has the study documented the transaction size?
- Has the study looked at the financial services – did the ICT element add different financial services? How was the ICT tool used for such services?
Short-term working capital loans may work well for traders wanting to purchase inventory.
Producers who need to make one-time investments in equipment purchases may require other services like term savings.

**Lessons Learned**
These are some of the key lessons learned in the sector that could apply to ICT pilot projects, and that ICT projects should apply if dealing with microfinance.

**Lessons**
- To date, microfinance has mostly offered microcredit designed for high-turnover microenterprises.
- Evidence shows that clients use these loans for a variety of purposes like medical expenses, funerals, and school fees.
- Microfinance could achieve greater impact if it offered a broader range of financial services that better met the more varied needs of the poor.
- Microfinance impact is about understanding how financial services affect the lives of poor people.
- Reducing vulnerability and risk is an important impact of microfinance.
- Impact assessments can help improve MFI focus, products, and performance.
- Donor support for microfinance should promote the twin goals of sustainability and impact.
- Donor funding for microfinance should complement, not substitute for, investments in core services like health, education, and infrastructure.
- The extreme poor are rarely reached by microfinance.
- Social safety net programs are often more appropriate for the destitute and extreme poor.

**Key ICT questions**
- Has the ICT enabled microfinance to reach different types of enterprises?
- Is there any change to loan use behaviour due to the ICT? (e.g. Is the loan used on communications more?)
- Has the ICT enabled a broader range of services?
- Has the impact study shown how the ICT Microfinance links have affected peoples lives?
- Has ICT reduced vulnerability and risk – through or apart from the microfinance?
- Has the ICT/Microfinance impact study made recommendations regarding improvements to the system?
- Has the study spoken to the donors?
- Has the study related the ICT/Microfinance activities to other investments?
- Has the study been realistic in its approach to clients?
- Is there an overemphasis or hype in the study report that should be tempered?

**Resources**
5 key web links for further research
- http://www.cgap.org/
- http://www.microfinancegateway.org/impact/
- http://www.microsave-africa.com/
- http://www.bellanet.org/partners/mfn/
- http://www.enterweb.org/microcre.htm
7. Annex Example application of framework

This annex provides a hypothetical application of the Framework to the Foundation Of Occupational Development (FOOD) infoDev Pilot Project in India. FOOD is a long established organisation with good community roots. It is important to note that the following is based only on the project documentation available. It is an application of the Framework to an old ICT pilot Project, and in that sense does not include all the details of negotiations and iterations that may occur in designing a new ICT pilot project. To create this example, infoDev did not engage with the Grantee and the details here may not represent the current status of the project.

http://www.xlweb.com/food/

7.1. Examine the project documents and determine if the ICT Pilot Project might contribute to a knowledge gap.

In this case the Project Purpose can be identified by the following documents. These statements represent some of the discussions that would occur should this project be considered in the light of the framework:

<table>
<thead>
<tr>
<th>Stated project objectives (purpose)</th>
<th>Are the objectives clearly stated in the proposal or project documents? Are they reported against in the final reports?</th>
<th>Objectives as stated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>● Utilizing ICT as a tool for social and economic development of the poor especially women.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Creating direct market for the products made by women groups.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Improving cash flow within the community.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Increasing the income of women thus reducing poverty.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Capacity building of women entrepreneurs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Creating and strengthening sectoral networks.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Creating a sustainable activity for the CBOs, so that it could implement community development programs with the income generated.</td>
</tr>
</tbody>
</table>

| Indicators at the Objectives (purpose) level | Were indicators set at the objectives level? | No clear indicators, but implied through “increased income”, and “improved networks”. The proposal also states the following intended outcomes: |
|---------------------------------------------|---------------------------------------------|● Increasing the income of women thus reducing poverty. |
| Discerned project objectives                | Looking beyond the written proposal objectives – with hindsight or from your experience, would you say there were other objectives to the project? | ● Organizing the micro enterprise sector which is presently disorganized. |
|                                             |                                              | ● Improve the economic condition of the poor. |
|                                             |                                              | ● Successful utilization of ICT as a tool for social and economic development of the poor. |
|                                             |                                              | ● Establishing links among communities with similar interests. |
|                                             |                                              | ● Helping to create and strengthen sectoral networks. |
|                                             |                                              | ● Compiling and sharing of best practices. |
|                                             |                                              | ● Facilitating creation of an Information Infrastructure. |
|                                             |                                              | ● Leveraging sectoral capabilities for development. |
|                                             |                                              | ● Achieving sustainability in a market environment. |
|                                             |                                              | ● Creating market-friendly environments for micro entrepreneurs. |
|                                             |                                              | ● Models that can be replicated on a larger scale under different environments. |

There was a clear Champion driven agenda with a concept of social capital as a substitution for financial investment. The objective was not just to prove the role of the ICT in marketing networks but also to prove the role of social capital as an alternative capital for starting businesses.
<table>
<thead>
<tr>
<th>Category</th>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donor Objectives</td>
<td>Did you as the donor have an expectation that was not detailed in their proposal but you held? For example most infoDev projects are innovative. Were there expectations that it would be replicated via the website to another continent?</td>
<td>None known. Speculation – infoDev saw this as a model that could be replicated easily.</td>
</tr>
<tr>
<td>Implementer Objectives</td>
<td>Many organisations implement projects, not purely because they want to fulfil the immediate project objectives but because the project forms part of a wider organisational strategy. Are you aware of a wider organisational strategy, and what role does/might this play in the final outcomes of the project?</td>
<td>None known. Speculation – FOOD is a 20 yr old organisation which has good community roots. This is part of ongoing work with communities, and the social mobilisation is the key aspect rather than the technology per se.</td>
</tr>
<tr>
<td>Client (Beneficiary) Objectives</td>
<td>In your understanding of the project, does it make assumptions about the motivation and objectives of the client (beneficiary)? From a client point of view do you expect any critical factors?</td>
<td>None expected. The women have a long term relationship with FOOD and therefore there shouldn’t be a problem getting detailed information from them.</td>
</tr>
<tr>
<td>Mainstream Development</td>
<td>What sectors do you feel the project applied to?</td>
<td>Increasing urban incomes, strengthening markets, innovative social mobilisation (alternative credit mechanisms)</td>
</tr>
<tr>
<td>PRSP and National plans</td>
<td>Do the national plans or PRSP make any reference to items that the evaluation might relate to?</td>
<td>National plans for India include the wording: Reducing poverty remains India’s greatest challenge . . . In India today, there also remains a substantial and persistent disparity of opportunity, particularly in the education, health, and economic prospects of women and other vulnerable groups such as the Scheduled Caste/Scheduled Tribe populations . . . What is required? . . . Supporting programmes which help poor people improve their own livelihoods, and which give poor people a bigger say in decisions affecting their lives. We aim particularly to support work which enhances the social and political status of women.</td>
</tr>
</tbody>
</table>
In particular the Task Manager Deepa Narayan stated in 2002:

“There are three risks with the current program design:
“A thorough financial analysis and costing should be done before replicating the program on a large scale. What are the unit costs of facilitation and outreach of the program? Who will manage these costs in other places? Are participants willing to cover the costs of facilitation?

“"The relationship between the social facilitators and the women’s groups should be carefully examined. From the meeting that I attended — especially compared with other projects visited in Andhra Pradesh — the relationship seemed to be more vertical than facilitating. Training in participatory training and methods may be useful.

“"Finally, while it is important for pilot projects to obtain seed grants for experimentation, given that the phones are free to the groups, it is not clear how the scheme could be replicated on a large scale.”

(Note – Case Study suggests that groups purchase their own phone now)

What have been the outcomes/impacts of the project both in the immediate short term and in the longer term on the full range of project defined stakeholders and beneficiaries?
Have the project outcomes had an unintended impact on the wider social economic and policy environment?

| Baseline data undertaken by the project? | Did the project specifically refer to baseline data that it has gathered? | No baseline as such, although surveys of the existing market are available. |
| Baseline data undertaken by others? | Did the project specifically refer to baseline data that is directly relevant to its outcomes? | Project doesn’t refer to other baselines. LSMS data for India is only available for Uttar Pradesh. However quick Google search reveals several educational and HIV orientated Household surveys therefore the likelihood of other specific studies available locally is high. |
| Unintended outcomes | Do project documents indicate that there may have been some unintended outcomes, or do you discern that there may be some unintended outcomes (worth investigating further) that were undocumented? | Project documents claim that objectives were fulfilled and possible unintended outcomes probably exist regarding social mobilisation and markets. |

Project documents claim that the project had a significant impact on the income of over 300 groups with increasing profitability reported in the final project report.

What were the processes which led to the outcomes?
What were the context and conditions that led to the outcomes?

| Project narrative | Does the reporting document the challenges faced when implementing the program/intervention/project or activity (policy obstacles, lack of institutional support, lack of financing, technical limitations, etc.). How were those challenges overcome or are being addressed? | Yes, many of the documents include some of the challenges faced. The case study presents the challenges noted by interviews with the director and some staff. |

Are the project outputs and/or outcomes sustainable, and under what conditions?
What conditions are needed to replicate or scale up the project, and what might be the impact of large scale application? (Scalability)?

| Theory of Change? | Do you now have a clear picture of what the project was trying to achieve, and how it all fits together on a theory of change? | Very clear, social change through linking women’s groups through the judicious use of ICTs. We note the Task Managers impressions about free phones and unit cost of facilitation. |
Is there an identifiable relationship between the outcomes of the ICT pilot project and the processes that might lead to the achievement of the Millennium Development Goals (MDGs)? (Impact)

**Development Goal & MDGs**

How do you expect the project to have contributed to development in general – not necessarily in the lifetime of the project? Which of the MDGs do you expect this project to have applied to or made some contribution to? Or more precisely – which processes has the pilot contributed to that may fulfil the MDGs?

The empowerment of Women is MDG3, and this project speaks directly to it. However there are also possible implications in terms of MDG1 income, and MDGs 2, 4, and 5 in terms of income and empowerment being used to change the family behaviour regarding schooling and health.

**Decide type of project**

How would you characterize the project? In which category would you place the project?

This is direct impact on livelihoods, changes in social and economic assets.
7.2. Engage with the Grantee.

Task Managers notes regarding pre engagement:
The FOOD website suggests that FOOD is an ongoing organisation. Information from 2003 is presented, but it is not unreasonable that the website has not been updated since then. The website presents a section on evaluation indicating that FOOD is interested in lesson learning.

The main evaluation document is a participatory evaluation which documents some qualitative data for some individual members of these groups, and presents the quantity and financial data aggregated for the women’s groups. However this data finishes at the end of the infoDev project, and it is likely that FOOD did not have the resources for ongoing monitoring and evaluation of the project outcomes. This would seem to indicate that FOOD will be interested to get the opportunity to look at the more detailed picture, and to gain insights into the outcomes of their project.

Action – Open negotiations with Grantee.

7.3. Determine roles and responsibilities.

Depending on the response of the Grantee, a TOR can be drawn. Who will undertake the evaluation? Since FOOD has undertaken evalutative work for IDRC they may have the in-house capacity for conducting their own evaluation. If not then a local consultant or consultant group should be available. It is unlikely that an international consultant would be required in India.

7.4. Plan the assessment details

Plan the evaluation study – ensure plan potentially answers all key Research questions

Once the evaluation team has been commissioned, the team can hold discussions with the Grantee as to the details of the evaluation i.e.

- how the Research questions apply in this case
- which stakeholders need to be included
- which specific tools can be applied to gain credible evidence
- how the preferred approach can be applied
- timetable of activities and other logistical details

How do the Research questions apply in this case? The Research questions will need to be discussed and applied to the specific case. This will be done by the evaluation team in conjunction with the Grantee. Note the following is based only on the 2002 documentation. The 2004 reality may make these questions impossible to answer.

However as an example:

What have been the outcomes/impacts of the project both in the immediate short term and in the longer term on the full range of project defined stakeholders and beneficiaries?

Actual outcome changes in the livelihoods of the people.

“Where the pilot works directly with the poor, a wide range of direct outcomes/impacts on the poor need to be considered (e.g. participation in decision making which affects their lives, involvement in civil society (institutions and networks), changes in the resources and capacities of a community, the effectiveness of its institutions and markets, or its broader economic prospects, small farmers increase productivity, access to better health care and education, environmental sustainability).”

“Regarding the longer term, how do the outcomes of the project fit into a theory of change (what might be the longer term events that might happen as a consequence of the immediate outcomes?).”

In this case it will be important to gather information on how people participated in the project, and in particular the decision making. How do the women’s groups relate to each other, and to other resources found within the civil society? How has the project affected the market dynamics, particularly the role of the middleman? Have people used their income to access education and health services etc?

7.5. Gather credible evidence (in assessment exercise)

Secondary data
- FOOD reports and own M&E records.
- Records of the women’s groups.
- Possible price data from Trade department of Chennai.
- Possible reports from NGOs working with self-help groups in other major cities in India (Lessons learned – not necessarily including ICTs).

Stakeholder interviews would include:
- Staff of the organisation FOOD (those directly involved with the project and other supporting staff).
- A sample of 10 women’s groups that have been involved in the project (focus group discussions).
- Middlemen who sell the same commodities the women groups produce and sell.
- Sample of clients of the marketing groups.
- Women’s group not allied to FOOD (may be allied to another NGO or may be independent).
- Other NGOs working with self help groups (interviews with).
- Chamber of Commerce (or equivalent).

Interviews with women focus groups would include:
- Discussion of inputs from FOOD, including exploration of decision making. Who decides what? How are women involved in the FOOD organisation?
Sensitisation of self-help groups was said by FOOD to include the following, therefore a check list for interviews might include:

- Participatory Learning Approach (PLA) techniques.
- Brainstorming sessions.
- Building trust by being honest, open, and building relationships with the CBOs and the community.
- Discussing best practices and exploring competitive, cooperative and realistic ideas.
- Separating people and personalities from the problem.
- Creating a strong community base and developing skills in motivation, planning and implementation of the project.
- Special training programs with outside resource persons will be organized to share their experiences on marketing, finance and administration. In addition to this, field visits to production centres and other CBOs within the network will also be organized to share experiences.
- Engaging the community in a discussion on economic and marketing issues.
- Discussing the need for shared responsibility by the CBO members.
- Discussing with the community the ways to operate and maintain the cell phone network.
- Specialized training on accounting procedures and bookkeeping.
- Establishing agenda and ground rules.
- Listening and understanding the other side.
- Expression of messages in an attention holding way so that audience will remember them.
- Repetition of messages over a sustained period of time.
- Messages not only inform but also motivate people to take action.
- Systematic M&E.
- Discuss memory and involvement in some or all of these and women’s understanding of why they did it.
- Knowledge of Market, including availability of products, understanding of pricing and price changes (seasonality?).
- Knowledge of production process including costs of materials, labour input.

### 7.51 Household Survey

Survey sample size would depend on stakeholder interviews. There may be a greater or lesser need to compare the FOOD self help groups with other self help groups or women not involved in groups. Sample size should be at least 220, probably including 40% women who are not involved in FOOD self help groups.

Survey should include (based on LSMS):

- **Household Composition.** Household roster, demographic data, information on parents of all household members.

  - **Education.** Completed schooling and schooling expenditures for all household members 5 or older; schooling and other information of all non-member children under 30. Possible test for literacy.
  - **Health.** Utilization of health services and medical expenditures for any illness in the last four weeks; utilization of and expenditures for preventive services in the last 12 months.
  - **Migration.** All household members 15 years and older place of birth, time and current place of residence, and reasons for first and last moves.
  - **Fertility.** Birth history; use of maternity services and duration of breastfeeding for last live birth.
  - **Consumption Modules.** Food Expenditures Food expenditures in the past 14 days and past 12 months; consumption of home production in past 12 months.
  - **Non-Food Expenditures.** Expenditures in the past 14 days and past 12 months; remittances to other households.
  - **Housing.** Type of dwelling; housing and utilities expenditures.
  - **Durable Goods.** Inventory of durable goods and their characteristics.
  - **Income-related Modules.** (households involved in self help groups may think of themselves as employed or self employed or informal or casual workers – hence explore income as employment and as a business).
  - **Women’s self-employment.** Income, expenditures, and assets for three most important household businesses.
  - **Economic Activities.** All household members 7 years and older – Employment, income, and time data for the main and secondary jobs in the last 7 days and the last 12 months; employment history; unemployment spells in the last 12 months; time use in the home.
  - **Other income.** Income from other sources, including remittances from other households.
  - **Saving and credit.** Savings and net debt the day of the interview; characteristics of outstanding loans to and from household members.

Note that questions on income and expenditure will include specific questions regarding the contributions to the women’s groups.

Depending on the interviews, there may need to be questions specifically about their understanding and knowledge of how the group trades (particularly the use of the phone?).

In addition it may be appropriate for the survey to include qualitative questions – depending on the outcome of the focus group discussions. These may include open answer questions such as:

“How has your membership of the group changed your relationships with your neighbours?”
However, open answer questions can be time consuming, and depend on the skill of the interviewer. Coded or scaled responses can be easier: "How much do you agree with the statement: Membership of the group has increased my interaction with my neighbours?" [Scale 1 to 5 where 1 is Very much, and 5 is very little]

[The above example is based on the premise that the project is about increasing social capital, and extending the reach of that social capital – a series of questions about relationships may be appropriate]

7.6 Interpret the data

If an older household survey has been identified as a baseline, then the analysis may include changes in the household conditions.

The household data would be analyzed by disaggregating the data. The analysis would include cross tabulations or use of the Mann-Whitney U test for differences between two independent groups.

Independent variables might include:
- Involvement in FOOD self help groups
- Involvement in other groups (and non-involvement)
- Education
- Position in family (and dependents)
- Migration history
- Birth History

Dependent variables might include:
- Involvement in FOOD self help groups
- Involvement in other groups (and non-involvement)
- Income data
- Consumption data
- Saving and credit data
- Opinions and qualitative (non-parametric) data
## Would the above approach cover the key Research questions?

In reality, the key Research questions would have been assessed during the planning phase of the evaluation, in negotiation between the evaluator, the Grantee and the Task Manager. In this example, we present an illustrative check that the plan of interviews and household survey would have answered the “Project Purpose” and Research questions.

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>What were the project objectives in terms of poverty interventions, have they been met?</td>
<td>Household survey should yield specific data on the relationship of household income to the involvement in the project. It would also yield a comparison of the impact of the project on those involved with an equivalent peer group not involved.</td>
</tr>
<tr>
<td>What have been the outcomes/impacts of the project both in the immediate short term and in the longer term on the full range of project defined stakeholders and beneficiaries?</td>
<td>Household data will demonstrate the impact on incomes and expenditures. Interviews will show the changes in markets, and define the role of social capital in entrepreneurial start-up.</td>
</tr>
<tr>
<td>Have the project outcomes had an unintended impact on the wider social economic and policy environment?</td>
<td>If this shift to “social venture” is a significant outcome, a new means of credit for the poor, then it will have been identified. Other impacts may have come out of the qualitative interviews.</td>
</tr>
<tr>
<td>What were the processes which led to the outcomes?</td>
<td>Interviews with staff and clients should have given adequate description of processes – in particular the heads up from Task Manager Deepa Narayan will have made sure the evaluation team explore the participatory processes. The role of the phone for wider reach of social and business relationships would be covered from the interviews.</td>
</tr>
<tr>
<td>What were the context and conditions that led to the outcomes?</td>
<td>Household data will yield the status of the clients. The interviews with external stakeholders such as Chamber of Commerce should clarify the context and conditions of the market.</td>
</tr>
<tr>
<td>Are the project outputs and/or outcomes sustainable, and under what conditions?</td>
<td>The group data will discuss profitability, the wider market discussions will show any dependences on particular market conditions.</td>
</tr>
<tr>
<td>What conditions are needed to replicate or scale up the project, and what might be the impact of large scale application? (Scalability)</td>
<td>Task Manager Deepa Narayan highlighted the need for financial analysis, which will have happened in group interviews and from group records. Total cost of facilitation can be obtained from project records and staff discussions.</td>
</tr>
<tr>
<td>Is there an identifiable relationship between the outcomes of the ICT pilot project and the processes that might lead to the achievement of the Millennium Development Goals (MDGs)?</td>
<td>Predominantly this project should have changed the poverty status of the households affecting MDG 1 to 5. The household survey should show the differences in income and therefore for consumption eg for education and health.</td>
</tr>
</tbody>
</table>
The data from the evaluation would lend itself to checking the lessons learned from case studies. For instance, “Lesson 2: When choosing the technology for a poverty intervention project, pay particular attention to infrastructure requirements, local availability, training requirements, and technical challenges. Simpler technology often produces better results.” The role of the technology, in this case the telephone would be examined in detail through the interviews, and the linkages between literacy and use that would come from the Household Survey.

Bridges to Mainstream
The write up would include using the Livelihoods Framework to describe the changes. This would include comment on the changes to vulnerabilities. Has the family been able to change its conditions (e.g., migration from a slum, or even participated in slum development)? Changes to assets (if the project is about social capital) but also including savings and financial. Was there significant training for the women – human capital? Institutional framework – has the social network enabled the group to lobby for changes in their services from Government, have they been able to voice their concerns over planning processes?

7.7 Resources required for the evaluation

The evaluator would be required to spend interviewing approximately:

- Staff of FOOD, 4 days
- A sample of 10 women’s groups, 5 days
- Middlemen, 2 days
- Sample of clients of the marketing groups, 3 days
- Women’s group not allied to FOOD, 2 days
- Other NGOs working with self help groups, 3 days
- Chamber of Commerce (or equivalent), 2 days
- **21 days**

Plus reading, negotiating, etc – approximately one and half man months (maximum)

Household survey

Survey design

Identifying interviewers

Training of interviewers

Interviews

Data entry

Analysis

Notes

- An outcome of the focus groups perhaps
- 2 professional days to clarify it.
- Probably students – need to be female
- Possibly 2 to 3 days
- Between 5 to 7 interviews per interviewer per day
- 5 days of a student
- 5 days with SPSS

Time would be required for writing up, presenting to FOOD in India, presenting to a local public seminar to inform other NGOs and Government of this project, making provision for a member of FOOD to be at a regional conference to present the results of the evaluation, and generate the required multiple deliverables.
8. Annex Diversity in ICT pilot projects

ICT pilot projects are diverse in a number of ways eg in terms of their:
- purpose
- stakeholders
- approaches

In order to assist the Task Manager and Grantee to identify the approaches to be used for the assessment both in terms of the “Project Purpose” and the Research questions, we can identify from past projects four general types of ICT pilot projects. These are:

- **Those with a specific purpose of changing the enabling environment** (i.e. projects that attempt to influence or change the regulatory environment, policies, legal framework, awareness among policy makers, or the public (informed by the media).
- **Those with a purpose that specifically attempts to encourage take up and provision of ICTs by the ICT sector** (i.e encouraging private (and to a certain extent public and donor) sectors to take up new ICT opportunities, providing ICT Infrastructure and applications.
- **Those that seek to enhance service delivery efficiencies through new technologies** e.g. working to enhance health services, education, local government, civil society.
- **Those that seek to create opportunities for direct use of ICTs by the poor to enhance their livelihoods** – provision of market data, telecentre public use of ICTs.

Identifying an ICT pilot project by its general purpose assists the Task Manager by:
- reducing the diversity of ICT projects to a manageable discussion.
- assisting linking ICT pilot projects with mainstream development.
- enables the Task Manager to know who are the likely primary beneficiaries or “boundary stakeholders” of the ICT pilot project.
- enables the Task Manager and Grantee to negotiate the assessment approach.

This approach breaks away from a technology focus, with an emphasis on the impact, mainstreaming, and the social and economic context.
### Table – A very general typology for ICT Pilot Projects – Part 1

<table>
<thead>
<tr>
<th>Typical description of project</th>
<th>Enabling Environment (ICT)</th>
<th>Take up provision of ICTs by the ICT sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examples from infoDev past portfolio</td>
<td>Projects typically include one off publications, conferences, series of workshops, etc.</td>
<td>Regarding the past pilot projects there are very few projects that were orientated to directly scaling up or supporting the ICT sector.</td>
</tr>
<tr>
<td>Typical outputs of project</td>
<td>Mainly publications, one off websites and conferences.</td>
<td>Capacity building of decision makers, technical staff. In rare cases possible specific technical installations.</td>
</tr>
<tr>
<td>Primary Beneficiaries</td>
<td>Policy and decision makers.</td>
<td>A mixture of policy and decision makers and private sector actors.</td>
</tr>
<tr>
<td>Typical outcomes</td>
<td>Changes in thinking in the decision makers.</td>
<td>Changes in the provision of ICTs. The intention tends more towards an actual outcome of increased technology use within a country of set of countries. For instance the project ”Forward – A Project to Foster a Wide and Rational Development of Telecommunication Infrastructures (Latin America)” was about upgrading of skills to encourage investment in technology.</td>
</tr>
<tr>
<td>Implication on “Project Purpose” questions</td>
<td>Influences to policy are difficult to track and attribute particularly pilot projects. Projects that seek to build capacity or create an enabling environment need to track the stakeholders concerned.</td>
<td>M&amp;E could include data on the take-up by the private and public sector as a result of the pilot, capacity building should include tracking the stakeholders.</td>
</tr>
<tr>
<td>Relevance to Research questions</td>
<td>What does the pilot discussion of policy changes and enabling environment tell us about trends and changes in the wider society, and about processes for changing enabling environment as part of mainstream scaled activities?</td>
<td>Is this a leapfrog opportunity? How should policy and regulatory advice take this into account? What does this change say about financing initiatives – private or public? How does this technology affect business creation and further innovation?</td>
</tr>
</tbody>
</table>
Table – A very general typology for ICT Pilot Projects – Part 2

<table>
<thead>
<tr>
<th>Typical description of project</th>
<th>enhance service delivery efficiencies</th>
<th>enhance livelihoods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examples from infoDev past portfolio</td>
<td>This is where the majority of the past infoDev projects sit. They seek to enhance the health or education sectors, or to provide services to the government for meaningful analysis of data.</td>
<td>Pilot provision of ICTs has directly affected the public.</td>
</tr>
<tr>
<td>Typical Outputs of project</td>
<td>The development of resources (skills training of human resources, provision of an information gateway, etc).</td>
<td>A new service available to the public that can be directly used to change the livelihood options.</td>
</tr>
<tr>
<td>Primary Beneficiaries</td>
<td>Generally the staff of the service delivery agent.</td>
<td>The clients of the service, i.e. the poor.</td>
</tr>
<tr>
<td>Typical outcomes</td>
<td>Changes in the working practice of the service delivery agent, hopefully demonstrating greater efficiencies.</td>
<td>Changes in Livelihoods. The distinctiveness of this grouping of projects should be that there are identifiable poor communities that have been a part of the pilot, and the changes in their livelihoods can be examined.</td>
</tr>
<tr>
<td>Implication on &quot;Project Purpose” questions</td>
<td>M&amp;E need to consider the evidence for whether the new way of working led to improvements in the service delivery.</td>
<td>M&amp;E should include enough detail of the status and constraints of the household to determine not just the impact and benefits of the pilot, but under what conditions was the household able to take up the new opportunities?</td>
</tr>
<tr>
<td>Relevance to Research questions</td>
<td>Could the improvements seen in the pilot project be applied throughout a service sector? Are there barriers and drivers that would affect such a roll out? Is the service delivery highlighted in national planning documents and what policy changes are imminent? eg What would be the impact of ICT use, say in education, on outcomes, achievement, teaching and learning processes and future employment?</td>
<td>Would a scaled project still have the same market effect? Is it likely to lead to further innovation in businesses and livelihoods? Could the ICT create new income-generating opportunities relevant to poor, rural, often illiterate or poorly educated populations?</td>
</tr>
</tbody>
</table>
9. Annex Checklist on issues for consideration

What were the project objectives in terms of poverty interventions?

- What aspects of poverty did the project address?
- What were the unmet needs of the poor that the pilot project was targeted at providing?
- What were the links between the ICT project and the broader, more comprehensive development and poverty-reduction strategies?
- What were the links between the ICT project and the broader processes that will contribute to the Millennium Development Goals?
- How did the project address the basic needs of the poor in terms of economic opportunity, improved nutrition, health care, healthy environments, education and sustainable livelihoods?

What were the outcomes/impacts of the project both in the immediate short term and in the longer term for the stakeholders and beneficiaries?

Depending on the nature of the project a wide range of possible outcomes need to be considered. These may relate to:

- policy changes in the private and service sector environments.
- changes in access to information and knowledge and/or capital.
- ability to innovate and compete in local, regional and global markets.
- changes in the entrepreneurial environment to help commercialize new technologies.
- sustained economic growth.
- reduction of poverty, hunger and disease.
- improved economic and educational opportunities for the poor.
- greater gender equality.
- changes in market reforms, information flows and incentives for risk and innovation.
- changes in governmental institutions that shape and regulate the market.

Where the pilot works directly with the poor, a wide range of direct outcomes/impacts will need to be considered:

- participation of the poor in decision making and how this affects their lives.
- their involvement in civil society (institutions and networks).
- changes in the resources and capacities of a community and the effectiveness of its institutions and markets, or its broader economic prospects.
- increase in productivity for small farmers.
- access to better health care and education.
- environmental sustainability.

Finally, how might the outcomes of the project fit into the long term? What events might result as a consequence of the immediate outcomes?

Have the project outcomes had an unintended impact on the wider social economic and policy environment?

Has the outcome of the project led to deeper outcomes within the social and economic environment?

What were the processes that led to the outcomes?

- There needs to be a focus on stakeholders and beneficiaries. What activities and products were used to communicate with them and engage them in project outputs and objectives?
- The nature and extent of participation and consultation in determining needs.
- The nature of and extent of lessons learned, and used from ICT or other sectors (e.g. communication for social change projects).

What were the context and conditions that led to the outcomes?

- What was the context in which the project took place and what contextual factors helped or hindered its impact?
- What were the general political processes and economic environment that enabled the changes in decision makers’ knowledge attitudes and practice?
- What were the impediments to the realization of poverty reduction?
- What changes in resources, capacities, institutions, markets, social structures, etc. were necessary in order to remove those impediments and achieve the desired ends?
- Was the project adapted to the needs of the community, its social dynamics, or physical and environmental constraints?

Are the project outputs and/or outcomes sustainable, and under what conditions?

- Are the pilot project outputs sustainable?
- Are the pilot project outcomes sustainable?
- If the project was scaled, are the outputs likely to be sustainable?
- If the project was scaled, are the outcomes likely to be sustainable?

Is there an identifiable relationship between the outcomes of the ICT pilot project and the processes that might lead to the achievement of the Millennium Development Goals (MDGs)? (Impact)

The deeper changes are economic growth, Pro-poor growth, government capabilities, market responsiveness, participation of citizens in poverty reduction strategies and similar. Therefore when describing the relationship of the outcomes of the pilot project to the MDGs, the description should include the actual changes in the wider social and
economic environment and the potential changes on the social and economic environment of a scaled project.

What conditions are needed to replicate or scale up the project, and what might be the impact of large scale application? (Scalability)

- The policy and regulatory environment for ICTs (current and in the pipeline).
- What processes for consultation and communication exist?
- Has there been strong beneficiary and stakeholder involvement during the pilot?
- What are the identified needs of stakeholders and beneficiaries?
- Is there clear evidence of demand that is relevant to poor people’s lives, such as expressed in the project objectives, from the life of the project and through the impact study?
- Is there an understanding of the key factors that enabled the original project to work?
- What identifiable project outputs that can be promoted? This might be a material input, a decision tool, a new or adapted livelihoods practice, or a body of knowledge.

- Have the pilot outputs have been validated by relevant users?
- What outputs (policy changes, ICT products, efficiency gains, livelihood strategy) show a definable competitive advantage when compared to current user practice or at a scale appropriate to target users?
- Is there evidence of buy-in and capacity of local organisations to take things forward?
- Was a dissemination (as opposed to PR) strategy or set of activities in place during the lifetime of the project. If so, is there evidence that some pilot dissemination activity has already been done?
- Where national legislation and procedures apply, does registration of the ICT system or application need to be achieved?
- What impact might a scaled version of the pilot have in a new environment (different part of the country, region etc)?

Since the potential for replication and scale is a key question for infoDev, the assessment should specifically consider:

- was this a suitable pilot?
- did the right conditions exist?
- if not, can the right conditions be created?
The infoDev Terms of Reference for this Framework were: "The main goal of the project (Project) is to develop a common evaluation Framework for ICT pilot projects. This framework will later be used either on infoDev-funded projects or other ICT projects. The evaluation Framework will serve as a consistent framework, detailing how ICT played a role in the outcomes of the projects (whether or not projects objectives as described in the grants were realized) and how the projects did or did not empower disadvantaged populations.

The Framework should place particular emphasis on identifying the unmet needs that each pilot project was targeted at providing, as well as the impediments (regulatory, financial, social, etc.) that prevented these needs from being meet: why was the project necessary and what were the innovative strategies deployed by the project to overcome these impediments.

The evaluation Framework should be undertaken with a constant reference to the Millennium Development Goals (MDGs), as ICT should be seen as a means to help meet the MDGs and not as a separate sector or an end to itself.

This evaluation Framework does not aim at an in-depth assessment of infoDev projects performance, as it will evaluate projects, which are already completed. Its main purpose is to draw broad lessons of experience to be part of the overall knowledge component developed by infoDev.

The evaluation Framework should place particular emphasis on innovation, sustainability and replicability of the projects. It should respond to the following needs:

- consistent and systematic extracting of lessons from a pool of diverse projects;
- developing a coherent approach integrating M&E concerns and guidelines from the beginning of a project to the post-project long-term impact evaluation stage;
- maximizing the validity and reliability of the M&E data collected through a mix of instruments;
- minimizing the burden placed on grantees and judiciously allocating roles and responsibilities to ensure maximum use of existing knowledge.

The evaluation Framework will rely on already existing evaluation frameworks developed by bilateral agencies to provide a realistic synthesis of these. The evaluation Framework should:

- Design a common methodology that will be applied to each project evaluated.
- Give a framework to describe the major impacts/results of the project being examined. This should include how to analyze whether the project objectives described in the grant were realized and an assessment of the development impact of the use of ICTs in poverty reduction, number/type of people/groups affected – reflecting social and economic attributes of different beneficiaries/clients; policy changes and standard of living improvements.

- Present tools to identify issues or trends confronting the projects from a forward-looking perspective.
- Note challenges faced when implementing the program/intervention/project or activity, such as policy obstacles, lack of institutional support, lack of financing, technical limitations, etc. How those challenges were overcome or are being addressed.
- Describe ways to identify key factors/issues, which have led to poverty reduction outcomes.
- Encourage documenting the outlook for program/intervention/project or activity (if applicable), including a discussion on options for or considerations in scaling up the program.
- Draw lessons for developing and disseminating technologies to reduce poverty and achieve sustainable development.”

10.1 Responding to the Terms of Reference (TOR).

In responding to these TOR, the Framework has noted that a single methodology for such a diverse range of projects is not possible. It introduces a categorisation (Chapter 3) that is based on:

- three of the five crucial challenges being addressed by infoDev in its latest strategy;
- a generic theory of change for ICT pilot projects;
- the primary beneficiary or boundary stakeholder.

The Framework encourages the evaluator to describe the context of the project, to document clearly the problem that the pilot was addressing, and to evaluate the outcomes both intended and unintended. It also requires the evaluator to investigate the social and economic conditions that were key to the outcomes and to describe the potential for scale and replication from a forward looking perspective.

It has minimised the burden on the Grantee by placing emphasis on the selection process of evaluating past projects, and by refining the research question for future projects. Nevertheless within each evaluation, the Framework calls for a mix of approaches and tools. These will ensure a rigorous set of data outcomes that identify issues and trends, describes the key challenges and maximise the validity and reliability of the M&E data collected.

10.2 Grant Amendment

The draft framework as at 12/04 fulfilled the original terms of reference up to the submission of a final draft for Peer review. In its two main pillars it incorporated the infoDev strategy as known up to mid 04, and in the steps it provides a practical guide to implementing M&E of ICT Pilot projects.
However, the TORs written in July (04) reflect the state of mind of the infoDev program at that time. Since then the infoDev approach has been refined, and current needs have changed. In order to bring the framework in line with the current infoDev strategy (Draft 02/05) a grant amendment is necessary.

The current strategy strongly identifies future pilot projects as one of the many means for testing research questions relating to:
- Mainstreaming ICT as tools of development and poverty reduction.
- Enabling Access for All.
- Scaling up private sector-led ICT innovation, investment and new business creation.

Where the original TOR asked for a synthesis of standard M&E practice as it might apply to ICT pilot projects, with an emphasis on the project outcomes, the emphasis now is on generating knowledge that can feed into the infoDev strategy and thereby onward to the donor clients of infoDev. Pilot projects are therefore to be viewed as applied research – testing a hypothesis that is linked into the three areas identified above.

The Framework should focus on how pilot projects can be “proof of concepts”. It should draw out the difference between standard M&E of pilot projects (generally accepted to be for accountability and project/programme level learning), and the research agenda of infoDev. By its focus the Framework should steer the user to investigate data regarding the impact of an ICT pilot on core development priorities and how a pilot might taken to scale. The emphasis will be on an interpretation of outcomes and context which contributes to the Research questions.

The Framework should acknowledge that the objective of such research is to assist the donor community and developing countries to address the challenges identified in the current infoDev strategy. It is not expected to present a knowledge management strategy (as defined by USAID as “how to get the right information to the right people at the right time”).

**Responding to the Grant amendment.**

The Framework has been reworked to include peer review comments and to provide an emphasis on generating knowledge that can feed into the infoDev strategy and thereby onward to the donor clients of infoDev. This has been achieved by drawing out the difference between “Project Purpose” questions and Research questions. It has emphasised applied research.

Section 1 – The Framework rationale.
infoDev sponsors or facilitates, in cooperation with its donors and a broad range of partners, a variety of knowledge-generating and knowledge-sharing activities that are dynamic and mutually reinforcing – a full suite of knowledge-based services for its donors and other partners.

Three Themes, Common Questions: infoDev’s research strategy for the years 2005 – 2007 will focus on the three key themes:

- Mainstreaming ICT as tools of development and poverty reduction.
- Enabling Access for All.
- Scaling up private sector-led ICT innovation, investment and new business creation.

ICT pilot projects can contribute research data and evidence that, when interpreted from a forward looking perspective, speaks to these themes and addresses knowledge gaps. These three themes are not separate “silos” but three dimensions of one common challenge of harnessing the power of ICT to fight poverty and promote sustainable, broad-based development.

The infoDev 2005/2007 draft workplan states the following: “Demonstrating Impact and Scalability: infoDev’s traditional pilot projects could be seen as proof of concept exercises, but without adequate attention either to understanding impact or to exploring sustainability and scalability. In its new work program, infoDev will focus increasingly both on assessing the impact of successful pilots (both its own and others) and on designing and implementing proof of scalability exercises for high-impact pilots that show particular promise, so as to test these projects for sustainability and effectiveness at scale before donors, national governments and/or the private sector become more heavily investing in them.”

There is a need for evidence based interpretation from a forward looking perspective. In order to fulfil the needs of infoDev, its donors and partners, ICT pilot projects should also be viewed as applied research. Therefore ICT pilot projects need to address specific hypotheses and generate appropriate data. For this to happen there should be a common approach. The Framework here focuses on gathering the evidence required in order to make an evidence based interpretation or judgement of the potential outcome of mainstreaming the ICT pilot project in development activities and taking it to scale.

Monitoring and Evaluation (M&E), during and after the ICT pilot project, is standard good practice and is used for accountability and learning. It is generally incorporated in the project design and managed by the Grantee. It seeks to answer the central premise that if certain activities and outputs are completed then the project will achieve its purpose. Such M&E can be thought of as answering “Project Purpose” orientated questions. However, InfoDev, its donors and partners, looks on ICT pilot projects from a “proof of concept” point of view and as such its interests lie beyond the fulfilment of the “Project Purpose”. It views the ICT pilot as applied research, testing a forward looking hypothesis. Therefore an assessment of an ICT pilot project should include two components – “Project Purpose” questions mainly answered by a good M&E system, and Research questions, answered by an evidence based interpretation of the ICT pilot project.

There are two components that form the basis of such an assessment.

Component 1. The “Project Purpose” questions, are a set of questions informed by standard monitoring and evaluation systems.

In terms of “Project Purpose” questions the key questions are:

- What were the project objectives in terms of poverty interventions, have they been met?
- What have been the outcomes/impacts of the project both in the immediate short term and in the longer term on the full range of project defined stakeholders and beneficiaries?
- What were the processes which led to the outcomes?
- What were the context and conditions that led to the outcomes?
- Are the project outputs and/or outcomes sustainable, and under what conditions?
- Have the project outcomes had an unintended impact on the wider social economic and policy environment?

Component 2. Applied research is an extra activity beyond standard monitoring and evaluation. According to infoDev’s analysis and strategy, the “Project Purpose” questions will not answer the donors and partners needs. In order to make a valid contribution to the the knowledge gaps the ICT pilot project should also seek to make an evidence based interpretation or judgement on the other component, the Research questions. The evidence may be drawn from the M&E systems, but may also, in some cases, require extra data.

For each ICT pilot project there will be specific detailed questions but given the infoDev analysis of our current knowledge, the two overriding Research questions are:

- Is there an identifiable relationship between the outcomes of the ICT pilot project and the processes that might lead to the achievement of the Millennium Development Goals (MDGs)? (Impact)
● What conditions are needed to replicate or scale up the project, and what might be the impact of large scale application? (Scalability)

The diagram below is an adaptation of UNDPs’ representation of monitoring and evaluation. M&E is a cycle of accountability and learning in order to make more informed decisions. But M&E focuses on the Project Purpose – ie did the outputs lead to the achievement of purpose?

Research demands evidence that enables a forward looking perspective, an interpretation or judgement of the data as to what might happen if the project were mainstreamed or scaled.

This Framework outlines both:
the need of pilot projects to implement a Monitoring and Evaluation (M&E) system that will ensure the pilot fulfils its developmental purpose for its clients and beneficiaries, and the need of pilot projects to put in place evidence based research for proof of concept (how the pilot could contribute to development priorities and how it might be taken to scale from a forward looking perspective).
11.2 Section 2 – Steps to put in place an ICT pilot project assessment.

The full guideline document describes the steps required to implement such an assessment. It does not seek to provide a comprehensive discussion of Monitoring and Evaluation and assumes the contracted researcher has the skills and capacity required to gather evidence in an appropriate way and interpret it from a forward looking perspective. However, the document gives guides and pointers to the Task Manager for managing the process.

The steps to be taken in commissioning an assessment that will fit the infoDev strategy and be of best use to donors and partners, can be represented on a diagram as shown. The two main components of the Framework, “Project Purpose” questions and Research questions are elements that must be kept in mind at every step.

Engage with the Grantee. Pilot projects tend to be conducted by a diverse range of implementing agencies (Grantees). In many cases the Grantee may not have the capability to both execute the pilot and to undertake applied research. Experience shows that it is rare to find research capability in the same institutions or organisations that undertake field implementation of development interventions. However, the Grantee should be responsible for their own monitoring and evaluation. The project planning should include explicit discussion regarding the design of the M&E and applied research.

Roles and responsibilities:

- Overall responsibility and accountability typically resides with the commissioning Task Manager. This includes responsibility for control over the assessment process, guidance throughout all phases of execution, and the approval of all deliverables.
- The Grantee is responsible for its own monitoring and evaluation in order to achieve the Project Purpose, the day-to-day management of operations, regular progress reporting to the Task Manager as well as co-operation with any external researchers and may be asked to assist in local administrative arrangements.
- Researchers (who may be independent consultants, academics or an attachment to the Grantee) are responsible for working with the Grantee, gathering any extra research data required, the interpretation of results, and the preparation of the assessment report.

Negotiate the Research questions. Once a clear negotiated position of common understanding is held in principle, the detailed Research questions should be jointly decided on (i.e. what proof of concept is being addressed?) and the Framework used to determine the means and methods for collecting the necessary evidence and undertaking the required interpretation.

Plan the assessment details. Details should be discussed such as which stakeholders need to be included in the assessment, the specific approaches that may be applicable, and the quality control of the assessment.

Gather credible evidence. The guide presents a number of suggestions regarding appropriate instruments and approaches to gather credible evidence that could inform the applied research. A brief discussion is held on the role of baseline studies and the use of evidience. The main conclusion is that a mix of instruments will likely be required and these should yield a mix of qualitative and quantitative data. The proposed approaches include Tracer Studies, Knowledge Attitude Practice and Behaviour (KAPB) studies, Delphic surveys, Data collection, Household surveys, Participatory appraisals, Outcome expectations and Most Significant Change (MSC).

Interpret the data. During the ICT pilot project, the monitoring and evaluation system will be feeding back qualitative and quantitative data to the project managers, who may then use this data to refine or adjust the project (formative M&E). At the end of the project, the Grantee and the project team will want to assess the project for its achievement of purpose. They will want to learn from the experience, to determine if the project has served their client communities, and how it might be improved in a second
phase, or perhaps how it might be replicated (summative M&E). However, in order to fulfil the Research questions the evidence will also be used to make a forward looking interpretation. In particular we have noted that the Research questions should contribute to donors and partners understanding of how ICTs can affect wider development priorities. In order for the outcomes of the assessment to be relevant and taken up by donors and partners, the Framework proposes there should be explicit reference to various models and concepts used by donors and their partners. These can be thought of as a bridge placing the results of the assessment in language and concepts familiar to donors and their partners. Examples of bridges for mainstreaming are: the sustainable livelihood framework (commonly used by DFID UK), sector guidance sheets and the Millennium Development Goals (MDGs).

Of central importance is that the assessment outputs be shared at various levels. Although this comes at the end of the process, the research has been conducted to inform donors and partners therefore every opportunity for sharing the outputs of the research should be taken. These include; at a local level the outputs should be shared for local lesson learning, at national and regional level there may be specific lessons that could benefit development co-operation, and at international level infoDev will take the outputs of the applied research and feed them into the donor community to fill specific knowledge gaps.

The full Framework guide expands on the above points and is available from infoDev.