ICT for Poverty Reduction: "Necessary but Insufficient"
A State-of-the-Art Review

Introduction

It is known from decades of experience with the use of information and communication technologies (ICTs) in the public and corporate sectors that whilst ICTs are essential to achieve significant improvements in service delivery and enterprise performance, in the absence of other critical enabling conditions, such as adaptations in organisational behaviour, they will only deliver sub-optimal returns. There is now growing and disturbing evidence suggesting that the development community; donor organisations, policy makers and their advisors, is yet to fully come to terms with this reality; that ICTs are still regarded as a magic bullet and that an ICT *cargo cult* is emerging behind a technology-bound determinism that threatens to squander scarce resources and breed dangerous disillusion within key institutions. [1]

This paper presents an analysis of recent reports[2] since 2002 that highlight the use of ICT for poverty reduction in Asia. This paper seeks to provide an analysis that addresses the wide range of issues the selected reports cover; reflecting the multi-faceted nature of both poverty itself as well as the variety of conditions that are required for ICTs to have their optimal impact.

The term 'necessary but insufficient' has been consciously used in this paper to encapsulate the notion that it requires more than the mere deployment of technology to be successful with ICTs. It begs the question; 'if this is the case, then what else is required alongside the technology?' While this assertion is acknowledged to be not immediately groundbreaking, what this analysis sets out to reveal is the extent to which the recent reports have come towards achieving an answer to this question.

With the present focus on the Millennium Development Goals (MDGs) and the continuing uncertainty and confusion on the role that ICTs can play in achieving them, it is now a matter of immediate urgency that decision makers form a more precise understanding of the relationship between ICT and development, especially poverty reduction.

With more than 20,000 people dying each day worldwide from extreme poverty, there is a crisis that demands workable solutions and drastic measures that go beyond traditional approaches and which embrace contemporary technology within innovative and sustainable mechanisms that offer a new hope for solving seemingly

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[1] Cargo cults were religious movements occurring in Melanesia. Local people conducted rituals similar to the behaviour of white people they had observed, presuming that this activity would generate the same benefits. For example, building airstrips, airports, and radios made out of coconuts, straw, and other jungle materials, that were built in the belief that transport planes full of cargo would land on them. The cargo cult has been used as an analogy to describe certain phenomena in the First World, particularly in the area of business. During the 1990s, many companies began introducing computers en masse, inspired by the apparent connection between technology and success. Holding a nebulous belief that computers would "bring" profitability, just as the airstrips and control towers had "brought" cargo, a large number of businesses (and, soon afterward, schools and government agencies) bought into the hype. http://en.wikipedia.org/wiki/Cargo_cult

[2] The reports are analysed in summary in annex 1 and listed in annex 2.

intractable problems. This will not occur in the absence of a realistic understanding and a conscious acknowledgement and action on the restrictive parameters that impacts the effective use of every technology tool at our disposal.

The present analysis highlights the actions that would be helpful at multiple levels; at the policy-making and strategic decision-making level, the level of programme and project design and evaluation, and at the level of project operation, personal interaction and the achievement of individual benefits. Whilst particular technologies and their capabilities are highlighted, at least as much attention is also paid to the contextual circumstances within which they are deployed and the methodological approaches that should be adopted in order to ensure their optimal contribution to outcomes.

The framework developed and utilised for analysing the seminal papers consists of the following:

1. The approach adopted by the report, is it a;
   a. case study
   b. project survey
   c. meta survey
   d. general analysis
   e. meta analysis
   f. opinion piece
   g. other

2. Who were the target beneficiaries?
3. What were the poverty dimensions under scrutiny?
4. What issues and topics does it address?
5. What are the key findings and lessons learned?
6. What new issues are raised for further examination?
7. What success and failure factors were identified?
8. What generic tools were used and how effective were they?
9. What is its contribution to the growing body of knowledge and understanding?

The analysis will formulate a more detailed explanation of why ICTs alone cannot do the job of achieving widespread reduction in poverty and what it is that key stakeholders will have to do in addition in order to make it possible for ICTs to achieve the impacts that they are known to be capable of.
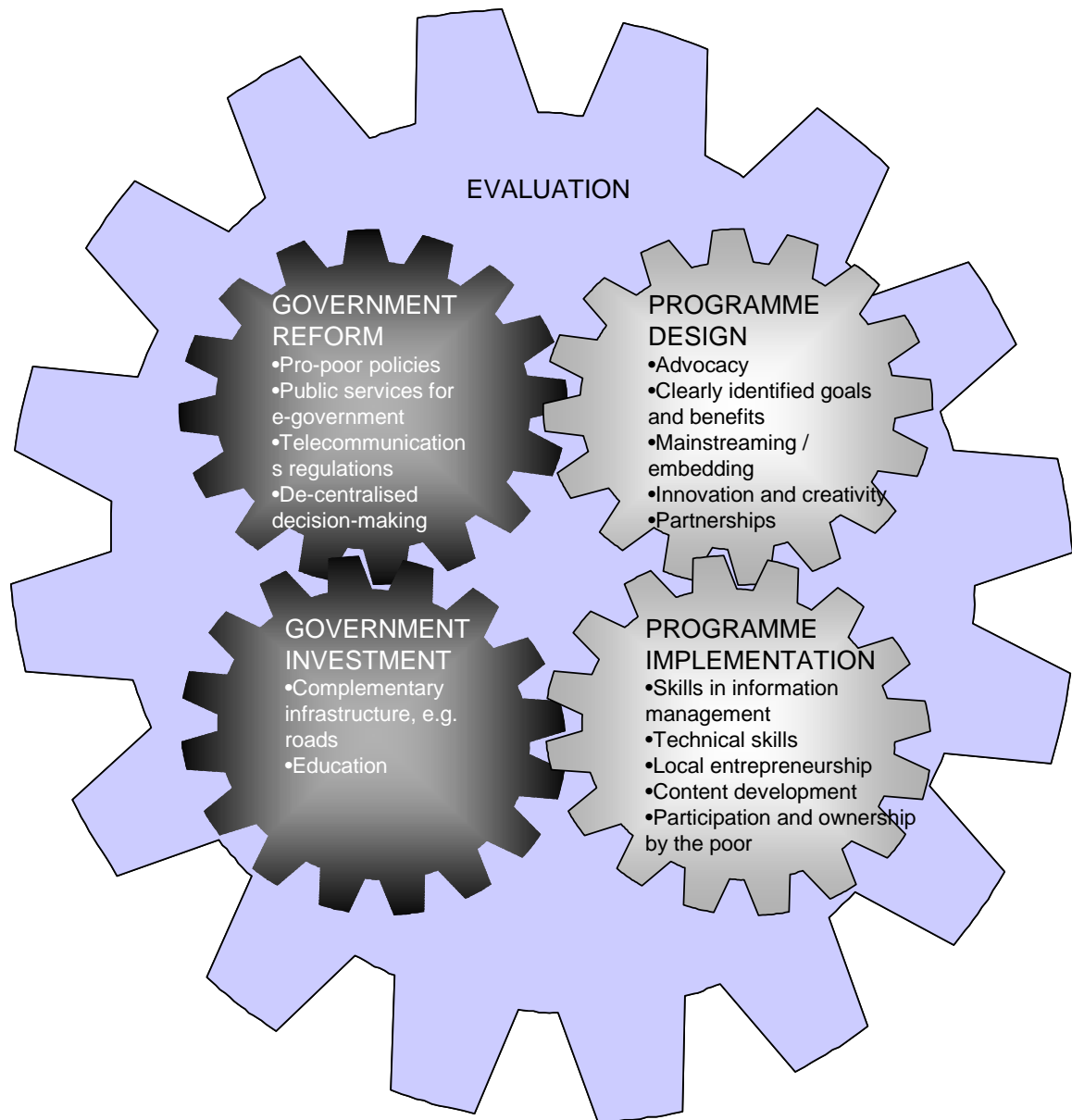
Findings

The analysis reveals the following set of associated conditions that have been observed to be necessary in order to ensure ICTs are used optimally in reducing poverty. They are presented in two categories, those that relate more to government actions, and those that relate more to programme implementers (who may also be government).

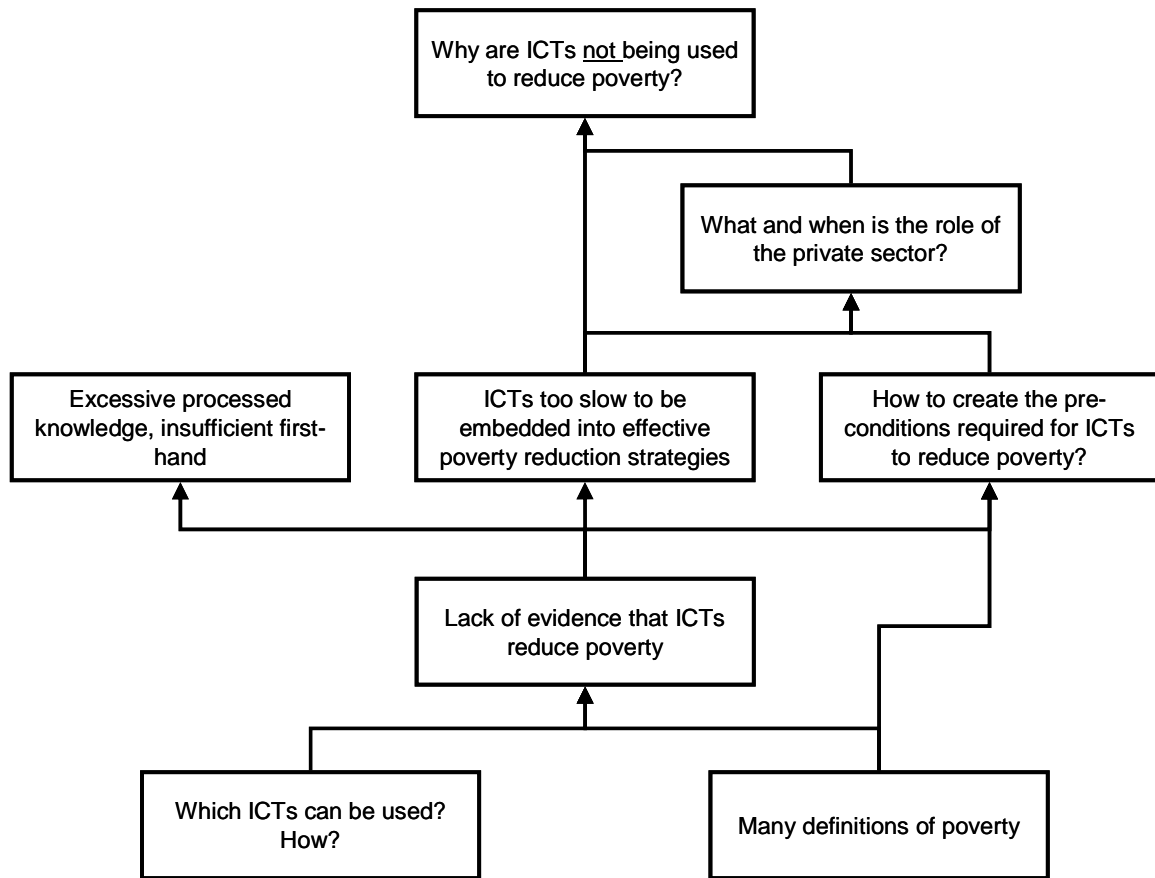| Associated Conditions that make ICTs Effective Anti-Poverty Tools	
Conditions for Government	**Conditions for Programme Implementers (may also be government)**
- Pro-poor polices for reform - Reform of public services for e-Government - Conducive telecommunications regulations and environment - Decentralised decision-making - Complementary infrastructure, e.g., roads - Education - Monitoring and evaluation	- Advocacy - Clearly identified goals and benefits - Mainstreaming / embedding - Creativity and innovation in programme design - Partnerships - Skills in information management - Technical skills - Local entrepreneurship - Content development - Participation and ownership by the poor - Evaluation

These conditions and their inter-relationship can be depicted as follows:

Working Together. Associated Requirements for Making ICTs Effective Anti-Poverty Tools

EVALUATION

GOVERNMENT REFORM
•Pro-poor policies
•Public services for e-government
•Telecommunications regulations
•De-centralised decision-making

PROGRAMME DESIGN
•Advocacy
•Clearly identified goals and benefits
•Mainstreaming / embedding
•Innovation and creativity
•Partnerships

GOVERNMENT INVESTMENT
•Complementary infrastructure, e.g. roads
•Education

PROGRAMME IMPLEMENTATION
•Skills in information management
•Technical skills
•Local entrepreneurship
•Content development
•Participation and ownership by the poor

The observations of the papers included in the analysis have been assembled into the following problem tree, which is an attempt to condense the analysis and to stimulate debate that will lead to an intensification of the use of ICT for poverty reduction.

ICT for Poverty Reduction: Problem Tree

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                    ┌─────────────────────────┐
                    │ Why are ICTs not being  │
                    │    used to reduce        │
                    │       poverty?           │
                    └─────────────────────────┘
                                 ▲
                                 │        ┌─────────────────────────┐
                                 │        │ What and when is the role│
                                 │        │   of the private sector? │
                                 │        └─────────────────────────┘
                                 │                    ▲
┌──────────────────┐  ┌──────────────────┐  ┌──────────────────────┐
│ Excessive        │  │ ICTs too slow to │  │ How to create the    │
│ processed        │  │ be embedded into │  │ pre-conditions       │
│ knowledge,       │  │ effective        │  │ required for ICTs    │
│ insufficient     │  │ poverty          │  │ to reduce poverty?   │
│ first-hand       │  │ reduction        │  │                      │
│                  │  │ strategies       │  │                      │
└──────────────────┘  └──────────────────┘  └──────────────────────┘
         ▲                     ▲                      ▲
         │                     │                      │
                    ┌──────────────────┐
                    │ Lack of evidence │
                    │ that ICTs reduce │
                    │     poverty      │
                    └──────────────────┘
                              ▲
         ┌────────────────────┴────────────────────┐
┌──────────────────┐                    ┌──────────────────────────┐
│ Which ICTs can   │                    │ Many definitions of      │
│ be used? How?    │                    │ poverty                  │
└──────────────────┘                    └──────────────────────────┘
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Observations and Conclusions on the Findings of the Meta Analysis

Overall, the following observations of the papers in the analysis emerge:

1. Most of the papers are reporting processed knowledge, in many instances making reference to the same cases. The impression gained from this type of literature review is that there are more organisations processing second-hand knowledge than there are generating it first hand. This could indicate a demand-supply imbalance with an associated opportunity for practitioners to make their experiences more widely known.

2. There is little informed discussion on what ICTs actually are; how they are evolving and converging, where they might be going and what the implications are for their further use in poverty reduction[3]. This absence is further associated with a lack of attempt to map applications onto the most suitable technology (either existing or emerging). Most of the analyses imply computers, the Internet and telephones, with differentiation between them in terms of their potential impact within poverty reduction programmes. Television is hardly mentioned, and radio receives passing reference, despite the tremendous strides being made in these technologies and the impressive (but admittedly rare) applications in poverty reduction.

3. There is plenty of discussion on what constitutes poverty; with various dimensions and definitions, but there is little analysis relating these individually to the capability of different ICTs.

4. A wide range of pre-conditions is claimed throughout to be necessary in order to make ICTs effective as anti-poverty tools. However, there is little analysis or practical explanation of how to create these conditions or even of the likelihood that they are achievable in any particular circumstance.

5. There is very little solid evidence to convince a sceptic that ICTs are reducing poverty in more than a handful of the (often quoted) examples. Overall, there is more promise than reality; a greater emphasis on what could be done than on what is actually working right now. This suggests that there has been insufficient grounded research, as well as premature and possibly over optimistic evaluations of what is currently taking place. Much of the focus lies on generating convincing arguments that ICTs are useful in poverty reduction, when a more informed perspective would serve to outline the circumstances under which this can be made true. Evaluation of the impacts of ICTs is traditionally problematic, even in corporate circles, as it is notoriously difficult to isolate its effects form all the other activities that are going on simultaneously. This should not deter practitioners, but it should alert them and the academics that finely calibrated tools are required.

6. Whilst there is a good deal of description on what could be done with ICTs to reduce poverty, there is little to help the observer understand what is not being done and why it is not being done.

7. The private sector is often quoted as an important enabler of various ICT-related benefits, including access and content development. But the arguments in support of this approach are rather thin with slim evidence to back up the claim. In some

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[3] According to the UNDP definition, ICTs are basically information-handling tools — a varied set of goods, applications and services that are used to produce, store, process, distribute and exchange information. They include the 'old' tools such as of radio, television and telephone, as well as the 'new' ICTs of computers, satellite and wireless technology and the Internet.

cases it seems to be taken for granted, again with little amplification of the circumstances under which this is more or less likely to be true.

8. Whilst ICT in poverty reduction have consistently been described as a tool for achieving a particular end, until recently they have rarely been treated as such. The papers suggest that an earlier excessive emphasis on the technology itself is giving way to an emerging consensus that they are most effective when embedded within already effective strategies for poverty reduction.

9. The papers indicate that effective pro-poor development with ICTs is very similar to effective pro-poor development without ICTs; but many fail to move beyond that realisation. Analyses should focus more on how technology makes the difference, within an already effective strategy.

10. Greater in-depth analysis on the fundamental context of unique socio-economic relations and environment that impedes the adoption of ICT for poverty alleviation in different communities has yet to be explored fully. A blanket approach of reductionism void of the appropriate socio-economic context continues to plague many of the studies analysed.

Analysis of the Papers

Study 1 Title	The Contribution of ICTs to Achieving The Millennium Development Goals.
URL	http://www.oecd.org/dac/ict
The approach adopted by the report.	Background paper Meta analysis
Who were the target beneficiaries?	Decision makers
What were the poverty dimensions under scrutiny?	MDGs
What issues and topics does it address?	▪ How can ICTs contribute to planning processes – local, national and international? ▪ How can ICTs contribute to efficiencies in service delivery? ▪ How can ICTs contribute to the MDGs through livelihood enhancement?
What are the key findings and lessons learned?	*Contribution of ICTs to planning* ▪ ICTs may improve the analysis and availability of planning information, and improve participation. ▪ ICTs introduce transparency and challenges that may make senior managers and politicians uncomfortable. ▪ It is often political, rather than technical issues that determine ICT's impact upon the outcome of planning processes. ▪ Human resource issues are key to sustainability. ▪ There may be a disjuncture between low-level staff being trained to operate an information system and the high-level staff who actually make the decisions. ▪ The limited availability of trained staff is a threat – rural government employees may leave for better prospects in urban private sector jobs and be difficult to replace. ▪ Technical gaps: whilst some stakeholders may be technically adept and able to cope with ever changing technology, others are marginalised by lack of access or skills. *Contribution of ICTs to efficiencies of service delivery* ▪ E-government involves reform in the way that governments work, share information and deliver services to external and internal clients for the benefit of government and the citizens and businesses that it serves. ▪ There are positive experiences where e-government has reduced waiting and travel time for clients, and the need to pay bribes. ▪ E-procurement has reduced costs, reduced corruption and opened up opportunities for SMEs. ▪ Service delivery: ICTs may play a critical role in improving the

	knowledge of practitioners, and providing information for different tiers of management. ■ Enhancing governance and reducing poor delivery: ICTs may play a critical role in enabling poor people to know what they should be receiving from government, and to challenge when delivery is not effective. *Contributions of ICTs to livelihood* ■ Marginalised groups may face special constraints in accessing ICTs, and using them for their specific needs. ■ There are specific measures that can be incorporated into ICT policy in developing countries to facilitate gender equality. ■ Although youth are a key group in society in developing countries, there is relatively little analysis of how the content and application of ICTs could be made appropriate for young men and women. ■ Concrete initiatives and expertise on local content are scarce. ■ It is crucial to differentiate between 'local content' and local 'eContent'. Just because little eContent from developing countries is found on the Internet, it is wrong to conclude that there is a 'local content' problem. Most local content is invisible to international audiences that are not connected to local 'offline' content channels. ■ While the ICTs and other media are converging and provide many opportunities to strengthen local content creation and exchange, different 'pools' of local content need to be treated very differently. ■ ICTs and the Internet are currently rather small parts of the 'toolkit' used to create and communicate local content. ■ Most content initiatives using ICTs tend to 'push' external content towards local people.
What new issues are raised for further examination?	The concept of 'local content' that is already in existence prior to ICT implementations.
What success factors and failure factors were identified?	*Success factors for e-government* ■ An enabling environment within government: Civil servants committed to public service. Staff with appropriate skill levels for ICTs. The ability to manage information appropriately. ■ Strong political and administrative leadership. ■ Clearly identified goals and benefits. ■ Starting small and scaling up through stages. *Success factors for enhancement of livelihoods by ICTs* ■ Content needs owners or originators with the motivation to create, adapt or exchange it. ■ These pioneers need to have the creative, technical and people skills to transform an idea into something that can be disseminated or exchanged.

	▪ Partnerships are essential to get the job done. ▪ There need to be very strong incentives for all the elements to come together at the right time and place.
What generic tools were used and how effective were they?	
What is contribution to the growing body of knowledge and understanding?	Firmly establishes the relationship between MDGs and ICTs.

Study 2 Title	**The Contribution of ICTs to Pro-Poor Growth**.
URL	http://www.oecd.org/dac/ict
The approach adopted by the report.	Background paper Meta analysis
Who were the target beneficiaries?	The poor
What were the poverty dimensions under scrutiny?	▪ Income and inequality. ▪ Department for International Development's (DFID's) absolute definition of pro-poor growth: How 'pro-poor' growth is should be judged by how fast on average the incomes of the poor are rising. ▪ DFID's relative definition of pro-poor growth: Growth is 'pro-poor' if the incomes of poor people grow faster than those of the population as a whole.
What issues and topics does it address?	▪ Definition of ICTs. ▪ What is understood by pro-poor growth? ▪ What are the factors that may contribute to it? ▪ Strategies to promote pro-poor growth. ▪ Contribution of ICTs to pro-poor growth. ▪ Infrastructure, ICTs and pro-poor growth. ▪ Which ICTs are most effective? ▪ Private sector development, and ICTs for pro-poor growth. ▪ SMEs, ICTs and pro-poor growth. ▪ ICTs support for rural livelihoods for pro-poor growth. ▪ ICTs to promote empowerment. ▪ The Poverty Reduction Strategy Paper (PRSP) process.
What are the key findings and lessons learned?	*Definition of ICTs* ▪ There are many interpretations of what constitutes ICTs. *Definition of pro-poor growth* ▪ There is much debate around the definitions of pro-poor growth, the relationships between poor, growth and inequality, and the links between these and poverty reduction. *Strategies to promote pro-poor growth* ▪ DFID identifies 4 conditions that may accelerate overall economic growth: incentives for investment, international economic links, broad access to assets and markets, reducing risks and vulnerability. *Contribution of ICTs to pro-poor growth* ▪ ICTs may contribute to both overall economic growth (better labour utilisation and productivity, enhancing key drivers of overall growth) and relative pro-poor growth (enabling specific strategies used by the poor, enhancing livelihoods of the poor, addressing barriers).

- In most national situations, the contribution of ICTs to pro-poor growth will be as an enabler or tool of other contributors to growth. It is a means to an end, rather than an end in itself.

Infrastructure, ICTs and pro-poor growth
- Investments in infrastructure services are recognised as crucial for stimulating growth in agriculture and rural areas, and for food security and poverty reduction.
- ICTs clearly contribute to enhancing the productivity of the poor (better market, weather information, enabling social empowerment).
- ICTs may only contribute to pro-poor growth in a context where there are other enabling factors including complementary infrastructure (e.g. roads) and policies (e.g. reform).
- Demand for ICTs is affected by physical availability, affordability, capacity, content, social issues.
- The effectiveness of ICTs varies with context and requirement.

Private sector, ICTs and pro-poor growth
- There are many ways in which ICTs could in theory help to address constraints and enable economic growth (better use of workforce and capital, exposure to global knowledge and best practices, improved access to capital, better transparency and efficiency of markets and regulators etc.).
- The creation of an ICT-producing sector has had limited impact on poverty reduction.

Small and medium enterprises (SMEs), ICTs and pro-poor growth
- ICTs may help address many of the challenges to the creation and growth of SMEs (similar to the private sector).
- Many SMEs make only limited use of ICTs.
- Although ICTs offer the potential to SMEs to benefit from increased access to information and business contacts, there are many other constraints on SMEs that need to be addressed before the increased availability of ICTs enables SMEs to flourish.

ICTs support for rural livelihoods for pro-poor growth
- ICTs may contribute to enhance rural livelihoods (better market access, reducing risk and vulnerability, enabling social empowerment)

ICTs to promote empowerment
- ICTs could make a significant contribution to empowering marginalised groups and promoting social justice (adding to the vibrancy of civil society as a check on government, be a source of ideas and innovations, and an outlet for the interests and concerns of groups).
- ICTs may help to reduce the isolation of the poor, bring their issues and needs onto the national agenda in PRSP and other

	similar processes, and increase pressure on government for pro-poor policies and services. *ICTs and PRSP* ▪ ICTs may only contribute effectively if a country is clear on its development priorities, and how ICTs may serve these priorities. ▪ ICTs would be expected to have three key roles in PRSPs: as a sector, as a tool for enhancing other sectors, as a tool for enhancing PRSP process.
What new issues are raised for further examination?	Three key considerations in respect of ICTs: could they be a sector within the PRSP; how could they best serve as a tool for enhancing other sectors; and how could they improve the PRSP process itself?
What success factors and failure factors were identified?	*Key issues underlying the expansion of availability of ICTs for poor* ▪ Policy changes to the business environment (allowing active private sector participation, government support for ICTs infrastructure, competition, a pro-poor regulatory policy, a strong, independent regulator). ▪ A conducive investment environment (long-term macroeconomic stability, predictable government policy, reform in investment policy and trade controls). ▪ Technology (wireless technology, prepaid ICTs). *Key principles for policy makers: infrastructure and pro-poor growth* ▪ Infrastructure investment and service quality are even more important for pro-poor growth than for growth per se. ▪ This will require pro-poor policies, especially with regard to effective investment and regulation. ▪ Trade-offs between attaining growth and more equal distribution do arise in planning infrastructure expenditure. These must be acknowledged. ▪ The main mechanism by which infrastructure contributes to pro-poor growth is by increasing the productivity of the poor. ▪ A key task is to identify the less obvious bottlenecks that sometimes have greatest significance for the poor. ▪ Viability of projects to relieve these problems can often be increased by synergistic investments, and more attention should be given to exploiting such opportunities. *Some factors affecting pro-poor growth - private sector and pro-poor growth* ▪ Sufficient incentive for the private sector. ▪ International economic linkages, supported by interventions to facilitate trade. ▪ Risk and transaction costs depress investment. ▪ Competition is the key to market deepening which improves access and returns for the poor.

	▪ Social justice leads to higher and longer sustained growth as well as greater poverty reduction. *Specific measures are needed for ICTs to benefit the poor* ▪ Extending access to remote areas. ▪ Stimulating local entrepreneurship. ▪ Content development.
What generic tools were used and how effective were they?	
What is contribution to the growing body of knowledge and understanding?	*Lessons for ICTs' contribution to growth* ▪ Getting the fundamentals right, so that markets work and macroeconomic conditions are sound. ▪ Facilitating the diffusion of new technologies. ▪ Fostering a pro-innovation environment so future technologies will emerge and spread. ▪ Investing in human capital and adapting labour market institutions and policies to the changing nature of work. ▪ Improving the entrepreneurial environment to help commercialise new technologies. *Lessons from use of minimum-subsidy auctions to allocate Universal Access funds* ▪ Universal Access targets set by governments were met or exceeded. ▪ Bundling attractive with less-attractive service areas, and offering larger license areas for economies of scale. ▪ Enabling applicants to bid simultaneously on several projects. ▪ Allowing bid winners to offer additional services to different customer segments. ▪ The experience of the operators bidding is essential. ▪ Internet policies are needed before subsidies for Internet services, and subsidies should focus initially on supporting basic infrastructure necessary for Internet access.

Study 3 Title	**Telecommunications and Information Services for the Poor. Toward a Strategy for Universal Access**.
URL	http://rru.worldbank.org/Documents/PapersLinks/1210.pdf
The approach adopted by the report.	Meta analysis
Who were the target beneficiaries?	Members of the World Bank Group Development partners of the Bank Group
What were the poverty dimensions under scrutiny?	Digital divide (disparities between rich and poor, disparities between urban and rural areas).
What issues and topics does it address?	▪ Telecommunications, information and poverty reduction. ▪ Overview of the problem of universal access to telecommunications and information services. ▪ Description of the different policy, regulatory and financing mechanisms to promote universal access (bridge the market efficiency gap and the actual access gap). ▪ Alternatives for Bank Group support based on specific country conditions.
What are the key findings and lessons learned?	Technological innovations, economic pressures, and regulatory reforms are making access to ICTs affordable and providing opportunities to close the digital divide.
What new issues are raised for further examination?	*Telecommunications, information and poverty reduction* ▪ Developing countries have huge disparities between rich and poor, and urban and rural/remote areas. *Universal access* ▪ The challenge in developing countries is to overcome two separate 'gaps': market efficiency gap and access gap. ▪ Recent technological advances, rapid cost reductions, and market innovations, have created many opportunities for increasing access to ICTs in rural, remote and poor urban areas. *Policies* ▪ Privatisation, liberalisation are key elements in a strategy to address the market efficiency gap. ▪ Different countries took different regulatory actions to bridge the access gap. ▪ When markets start to liberalise, a range of special financing mechanisms and investment subsidy schemes are available to attract investors to high cost or challenging areas. ▪ The costs of provision of universal service/access, including rural expansion, can be financed through special funds, which can be sourced from Government budget, development banks and agencies, licensing or spectrum fees and auctions, operator

	revenue contribution, interconnect levies, virtual fund transfer.
	- Competitive bidding can be used to minimise the use of subsidies. - Elaborate economic models are used by fund administrators to estimate the maximum subsidy. - Low interest loans, provided by governments or bilateral and multilateral aid agencies, can be used to encourage operators' network build-out in most challenging regions. - The trends in technology combined with the regulatory and financial incentives are giving rise to a new generation of telecommunications operators focusing on the rollout of service to rural, remote and low income areas.
What success factors and failure factors were identified?	*Lessons learned about service requirements – bridging access gap in a less liberalised environment* - Service requirements should be fair for all players and commercially feasible. - Based on country-specific criteria, the regulator must clearly state which operators are subject to service requirements. - It is important that service requirements be specific enough to be enforceable. - Using build-out targets should be set as a bid evaluation criterion in addition to the bid price; this encourages new entrants to commit themselves to rollout targets that may be higher than the regulator had set as minimum requirement. - Service requirements can be counter-productive encouraging massive internal cross subsidisation, if the targets are not set in a market-oriented manner and are not adjusted to the country or area-specific characteristics. *Lessons learned about rural and regional concessions – bridging the access gap in a liberalising environment* - Packaging lucrative areas with higher-cost areas to ensure balanced network expansion between regions, so that the poorest and most uneconomical areas are not left un-served. - In order to attract bidders for rural or regional licenses, multiple services may be bundled under one license, but without mandating a specific technology. - The efficient exploitation of wireless technologies necessitates a transparent regulatory process in spectrum allocations but, in the case of rural areas, the allocation of frequency spectrum free of charge can be an important inducement to entry. *World Bank's contribution to the success of rural universal access ventures* - Equity participation. - Limited or non-recourse debt. - Guarantees in addition to stable regulatory conditions. - Assistance with market research and expertise. - Support of contentious regulatory matters. - Assistance to governments in defining clearly the universal

	access strategies and mechanisms. *Credit and seed finance (to government) to help establish universal access funds* ▪ Credit to assist with the establishment of telecenters.
What generic tools were used and how effective were they?	Country groupings based on their degree of liberalisation and degree of geo-economic challenge. Grouping was used when the authors conducted analysis of the regulatory models for improving universal access of 62 countries.
What is contribution to the growing body of knowledge and understanding?	*4 strategic directions are suggested as key areas of Bank activity to achieve the objective of closing the digital divide* ▪ Design and implement the most appropriate policies and regulatory instruments to promote universal access. ▪ Mobilise financing for investments and transactions in communications networks and companies. ▪ Build institutions and human capacity in borrowers to adapt, implement and make best use of ICTs. ▪ Pilot new approaches, create and disseminate knowledge, and raise awareness within the WBG and with borrowers, partners, and the public.

Study 4 Title	Regional Human Development Report. Promoting ICT For Human Development In Asia 2004: Realising The Millennium Development Goals
URL	http://www.apdip.net/projects/rhdr/RHDR-Report.pdf
The approach adopted by the report.	Meta Analysis Comparative study
Who were the target beneficiaries?	
What were the poverty dimensions under scrutiny?	MDGs
What issues and topics does it address?	*Exploring the role and significance of ICT for human development in Asia, in the framework of MDGs* ▪ Discussion on the state of human development in 9 countries under study. ▪ The progress of these countries with respect to MDGs. ▪ Discussion on the potential and promise of ICT for human development and how ICT can break barriers to human knowledge, participation and economic opportunities. ▪ The status of ICT diffusion and use in Asia. ▪ Deep and widening disparities in ICT diffusion across geographic and social lines in Asia. ▪ Empirical linkages between ICTs and MDGs for human development. ▪ Insights through a systematic exploration of the application of ICT with respect to each of the MDGs. ▪ Recognise and identify limitations of ICT in furthering human development, including the challenges of the digital divide. ▪ Draw lessons from multi-country experiences for identifying policy directions.
What are the key findings and lessons learned?	*Human Development* ▪ There is a close correlation between the Human Development Index (HDI) and Technology Achievement Index (TAI) ranks. ▪ Human development measures across the range of critical indicators reveal significant disparities across the nine Asian nations. ▪ Recent data on human poverty also reveal stark differences among the nine countries. ▪ One of the weak aspects of human development in Asia remains the wide gender gaps. *Towards MDGs in Asia* ▪ While many nations have demonstrated progress in achieving the MDGs, developing countries are at different stages for different goals.

| | ▪ While Asia and the Pacific has made progress in its attempt to halve income poverty and is well on track towards the goals of reducing hunger, it will still not be able to meet the MDG targets by the year 2015.

ICT for enhancing human development
▪ ICT contributes to the overall economic growth of a nation or even to the global economy.
▪ ICT enhances the process of human development through productivity gains that it generates in every sector.
▪ The long term impact of ICT lies in its ability to directly expand human choices through increased access to information and knowledge.
▪ ICT breaks barriers to human development (human knowledge, participation, economic opportunity).

Status of ICT diffusion and use in Asia
▪ Asian nations are well placed to leverage the use of ICT for socio-economic and human development.

The digital divide

▪ Digital divide is a reflection of existing broader socio-economic inequalities.
▪ Digital divide can be assessed by examining indicators like penetration, cost, technology achievement, network readiness, socio-economic factors, locally relevant content and appropriate policy regime.

Harnessing ICTs for realising MDGs

▪ ICT can contribute to eradication of poverty through increasing employment and other economic opportunities for the poor; increasing access to credits for the poor, advancing agricultural development, improving community decision-making, facilitating poverty mapping, facilitating the provision of information on hunger and food security, improving government services for the poor.
▪ ICT can help achieve universal primary education through reducing physical and social barriers to education, promoting efficiency in education, improving the quality of teaching and learning.
▪ ICT can promote gender equality and empowerment of women by improving women's opportunities in receiving education and training, enhancing capacity of women's advocacy, creating job opportunities for women, facilitating women's social and political participation.
▪ ICT can help reduce child mortality, improve maternal heath, combat HIV/AIDs and other diseases through telemedicine, improving the provision of education and training on infant and |

	child healthcare, increasing hospital administration, managing patient health information, improving public health education and awareness. ▪ ICT can improve environmental sustainability through geographic information system and remote sensing, developing, updating, tracking environmental database, improving emergency communications, managing municipal solid waste and pollution, improving public awareness. ▪ ICT can promote global partnership for development by improving governance, facilitating international collaboration and exchange, facilitating international trade.
What new issues are raised for further examination?	
What success factors and failure factors were identified?	The degree to which ICT can influence the achievement of MDGs is conditioned by: a) the inherent nature of a particular goal combined with the materiality of information and communication in achieving it; and b) three critical enabling factors — technological, access-related and human.
What generic tools were used and how effective were they?	*Sets of indicators* ▪ A set of indicators for ICT development under different MDGs, proposed as per the guidelines of UN ICT Task Force. ▪ A set of indicators used for construction of indices pertaining to ICT development. (Availability-linked indicators, Indicators of efficiency and speed, Indicators of targeting social sectors, Indicators of targeting vulnerable groups). *Aggregate indices* ▪ Selected indicators were used to construct a set of thematic indices covering five distinct dimensions of ICT availability and use, which were then aggregated into a composite aggregate index capturing ICT-MDG relationships using 2 different statistical methods (RE and DM). ▪ The nine countries have been ranked based on the two sets of aggregate indices.
What is contribution to the growing body of knowledge and understanding?	Outlines the potential and the challenges of using ICTs to achieve human development goals.

Study 5 Title	Up –Scaling Pro-Poor ICT Policies and Practices. A Review of Experience with Emphasis on Low Income Countries in Asia and Africa
URL	http://www.gersterconsulting.ch/docs/Upscaling_ProPoor _ICTPolicies_Practices.pdf
The approach adopted by the report.	Meta analysis
Who were the target beneficiaries?	Intended to strengthen a multi-dimensional poverty reduction agenda for the implementation of the WSIS Principles and Action Plan, which is closely linked to the achievement of the MDGs.
What were the poverty dimensions under scrutiny?	Poverty is not just a lack of income. The multi-dimensional concept of poverty also refers to disadvantages in access to land, credit and services (e.g. health and education), vulnerability (towards violence, external economic shocks, and natural disasters), powerlessness and social exclusion.
What issues and topics does it address?	▪ How to mainstream ICTs (regulatory and policy environment, sector, facilitator) in national poverty reduction strategies? ▪ What pro-poor ICT regulations and policies (including free/open source software) are required for up-scaling ICT for poverty reduction? ▪ How to give poor people a stronger voice at all levels of decision-making by using ICTs? ▪ How to enhance income generation by the poor through ICTs? ▪ How to up-scale formal and informal education of the poor by the use of ICTs?
What are the key findings and lessons learned?	*Mainstreaming ICT in national PRS* ▪ Many countries have begun to develop and implement national ICT or e-strategies, but few of them have effectively mainstreamed ICT into poverty reduction strategies. *Pro-poor ICT regulations* ▪ There are a number of options for moving into the direction of targeted pro-poor policies: - freedom of expression - building up an independent regulator - competition in ICT infrastructure provision - application of cost-effective and locally adaptable tools such as free/open source software - pro-poor licence obligations for service providers and operators - making rural telephony profitable by supportive policies - Universal Service Fund (USF) ensuring an effective service provision - creating space for local initiatives and policies - enabling community radio. *Giving people stronger voice* ▪ E-government harnesses ICTs for the government's work processes, information sharing and service delivery. ▪ The deconcentration and decentralisation of the public sector can be greatly facilitated by the use of ICTs.

	▪ ICTs can contribute to the empowerment of individual citizens as well as at the community level. ▪ The long-term goal of the community multimedia centres' (CMCs) approach is to enable communities to collect, produce, exchange and disseminate relevant information. ▪ Appropriating modern technologies has impacts on the social status of individuals in their families and community. ▪ ICTs are an effective means to increase the voices of the poor in (global) policy debates. *Enhancing income generation* ▪ ICTs can promote opportunities for livelihoods. ▪ The benefits of ICTs in the context of production and employment opportunities are not limited to the formal sector but can be extended to benefit poor people whose livelihoods largely depend on the informal sector. *Up scaling education* ▪ ICTs can be taught as a subject in higher education to provide the necessary skills needed for formal employment. ▪ ICTs can be used to improve teaching across subjects. ▪ Education system may aim at creating a knowledge society and perceive ICTs as a tool for lifelong learning.
What new issues are raised for further examination?	Up-scaling of ICT grass-roots initiatives.
What success factors and failure factors were identified?	*Lessons learned in using ICT for poverty reduction* ▪ A participatory approach to ICT for development (ICT4D) and involvement of people in all stages. ▪ Leadership and institutional ownership matter. ▪ ICTs are embedded in a larger, demand driven development effort. ▪ Adopting a community-based approach to ICT access. ▪ A minimum level of physical and human infrastructure is required to foster effective and pro-poor use of ICT. ▪ An appropriate choice of technology. ▪ Content should receive as much attention as access. ▪ Mainstreaming ICTs effectively into their productive sectors. ▪ Information and communication are not free. ▪ Mainstreaming ICTs also pays off for people in poverty, even when budgets are stagnating or shrinking.
What generic tools were used and how effective were they?	
What is contribution to the growing	*Basic requirements for successful up-scaling of poverty reduction through ICTs* ▪ An enabling ICT policy environment.

body of knowledge and understanding?	▪ Mainstreaming ICTs in national PRS and related development strategies. ▪ Appropriate technology choices. ▪ Mobilisation of additional public and private resources. *Successful scale-up requires action at different levels* ▪ Advocacy at all level. ▪ Global coalition. ▪ South-South exchanges and partnerships. ▪ Multi-stakeholder partnerships. *Approaches identified as opportunities for up-scaling ICTs in education* ▪ The use of ICTs in education requires an appropriate prioritising of investment and current expenditure. ▪ Communal telecentres can play an important role in non-formal education. ▪ School infrastructure can be used in the evenings/weekends for other purposes of the community. ▪ Girls' education must be a priority in developing programmes and choosing the use of ICTs. *Challenges for up-scaling ICTs in education* ▪ A gap between policies and practices is obvious. ▪ Using ICTs towards gender equality remains a challenge. ▪ Few projects promote the active enrolment of girls in ICT programmes. ▪ Lack of local contents. ▪ Ways of teaching and learning provided by ICTs are foreign to most participants. ▪ Official recognition and certification of informal education and experiences are often difficult to organise. *Selected MDGs implications from UN ICT Task Force's report on mainstreaming ICTs for the MDGs* ▪ In order to maximise targeted contribution to attaining the MDGs, decision makers should shift their attention from bridging the digital divide to pro-poor policies and practices. ▪ Most of the (urban) policy makers lack knowledge about the local context of the rural and urban poor. ▪ The choice of an appropriate ICT is directly relevant for poverty reduction. ▪ It is necessary to mainstream ICTs in all forms of programme assistance (sector-wide approaches and PRS-based budget support). ▪ ICTs can be used in disaster prevention and relief.

Study 6 Title	Research. ICT Innovations For Poverty Reduction
URL	http://portal.unesco.org/ci/en/ev.php-URL_ID=17223&URL_DO=DO_TOPIC&URL_SECTION=201.html
The approach adopted by the report.	Project survey and analysis
Who were the target beneficiaries?	People living in poverty
What were the poverty dimensions under scrutiny?	*Dimensions of poverty* ▪ A hand to mouth existence in which meeting basic needs on a daily basis excludes people from other activities and aspirations. ▪ Material deprivation. ▪ Insecurity. ▪ Illiteracy and lack of education. ▪ Inability to maintain social status or social participation. ▪ Lack of capital to fund ventures. ▪ Restricted choice and opportunity, inability to develop one's talent, potential and aspirations. ▪ Health information and facilities are out of reach. ▪ Lack of freedom and oppressive social structures.
What issues and topics does it address?	▪ How participants understand and interact with the media they encounter through the ICT initiatives. ▪ How poverty is experienced and managed by the target groups. ▪ Learning and education as the way in which people understood poverty and poverty reduction, framed ICT projects. ▪ Local meanings and experiences of empowerment. ▪ How ICT initiatives can connect participants to wider social circles and create/recognise local social network. ▪ Embedding ICT projects in communities.
What are the key findings and lessons learned?	*Media use* ▪ The potential of an inclusive and multimedia view of ICTs seems clear and some bases for developing it stand out. ▪ Content creation itself is a powerful means of engaging people with media technologies and developing ICT skills. ▪ Engagement with all the ICTs brought out innovation and creativity in poor users and communities both in content and in understandings of the media. ▪ A significant local capacity of expression, programming and production using a range of media was demonstrated. ▪ Initiatives employing new ICTs can build upon existing community media and multimedia models which have long traditions of community content development and participatory training and production. ▪ Integrating ICTs with established media draws on the strong organisation and ownership models of community media. ▪ The work with eNRICH reveals a much wider scope to develop new solutions for local content development, packaging, organisation

and dissemination.

Poverty
- Poverty is a complex condition that involves issues of voice, empowerment, rights and opportunities and material deprivation.
- ICTs already play a crucial symbolic role in people's aspirations and their idea of what skills will be necessary for the future.
- ICT initiatives have a greater challenge to demonstrate the practical relevance and benefits of ICT skills and access.

Education
- ICT training has a special place in people's view of what they need to face the future and to advance out of poverty.
- But ICTs initiatives are valued for providing a different model of teaching and learning that stands in marked contrast to most participants' general experience of schooling.
- ICTs initiatives have a huge potential role to play in the gap between people's high valuation of education and the difficulty of continuous access to good quality education.

Empowerment
- Empowerment has wide and often locally specific meanings.
- ICTs link to empowerment in extremely diverse ways.
- ICT skills have direct and practical links to aspects of empowerment such as literacy, voice and expression, access to information.
- Empowerment is contradictory and a negotiated process that can involve losses and gains.

Social networks
- ICTs initiatives can enlist and expand existing networks, bring diverse and excluded people within a common social space. This can expand the flow of information and communication, and individual confidence and capacity to benefit from wider social networks.
- The further task is not only to overcome social restrictions and build information flows through wider networks, but also to strengthen the capacities and resources of these networks.
- This is a gradual process that works best when it develops organically from community demands, careful research and past experiences.

Embedding ICT projects in communities
- Embedding ICT initiatives in communities cannot be a matter of finding fool-proof organisational models that integrate partners, projects and community organisations, but a range of organisational responses and resources that can work within a number of processes that link projects and communities.
- A crucial issue is scale.
- Projects have worked best when based on clear and unambiguous strategies and procedures that work to deliver locally appropriate

	initiatives based on close communication and connection with users who are able to develop a sense of ownership and thus see benefits of trying to make the initiative financially sustainable over the longer term.
What new issues are raised for further examination?	▪ Continue to develop the network of researchers, and extend the number of initiatives involved. ▪ The next phase of research training will focus on analysis and writing up research in a range of formats. ▪ It is planned to create a new, purpose built research online support interface to support local researchers and other project staff and to help the research network grow. ▪ A new knowledge management system will be developed through the NIC in collaboration with experts from CIRAC, who have been developing similar systems in Australia, learning from experiences of eNRICH. ▪ A new training and support programme in local content creation suitable for use and distribution on old and new platforms is being developed.
What success factors and failure factors were identified?	▪ The strongest linkages between social and technical networks are highly important for the successful development of community based ICT initiatives. ▪ Involvement in local content creation is a powerful means of engaging people with ICTs, enabling them to have a voice, and to harness and circulate locally relevant knowledge.
What generic tools were used and how effective were they?	*Combination of ethnography and action research* ▪ Ethnography: indepth interviews, participant observation, diaries and surveys. ▪ Action research: brings about new activities in an intervention through new and better understanding of situations. *Advantages of the research method* ▪ Project development was consistently treated as an experience learning and responding to community members, technologies, participants, and project staff. ▪ The rich experience and knowledge of project workers could be valued and utilised as research, developed and combined with a wealth of sensitive research tools and reflected upon in everyday project development. ▪ The research project itself could be directed in relation to the emerging and changing needs of specific initiatives and projects. ▪ The research approach has allowed all participants to treat every aspect of the programme as experimental and as a learning process, to be monitored and managed through continuous feedback and reflection, rather than evaluated, at the end of funding period. ▪ This approach has allowed for an exceptional degree of transparency in communications and policy decisions. ▪ Projects have been able to identify and develop new or unexpected potentials, and UNESCO and partner organisations can support the initiatives in developing themselves according to their own dynamics.

What is contribution to the growing body of knowledge and understanding?	Addresses the circumstances under which ICTs can reduce poverty. "If ICTs are the answer, what is the question?"

Study 7 Title	**Digital Dividends for the Poor: ICT for Poverty Reduction in Asia**
URL	http://www.globalknowledge.org/gkps_portal/index.cfm?menuid= 269&parentid=179
The approach adopted by the report.	Meta analysis Case study
Who were the target beneficiaries?	Asia's poor
What were the poverty dimensions under scrutiny?	The UNDP's Human Poverty Index is used as the basis for analysing poverty in Asia: 8 dimensions of poverty: 8 MDGs.
What issues and topics does it address?	▪ Poverty in Asia. ▪ Application of ICT for poverty reduction. ▪ Best practices in ICT for poverty reduction.
What are the key findings and lessons learned?	*Poverty in Asia* ▪ Development and poverty reduction are not synonymous. It is possible for a country to develop even while the poverty situation remains static. Poverty in Asia is pervasive and massive. ▪ Poverty is a resilient phenomenon that will not be overcome easily. In spite of some evidence that poverty is being reduced, it is not being reduced quickly enough for the millions of people that are burdened by it. ▪ The best case scenario assumes a decrease in poverty of 25 percent in the years leading up to 2015. The worst-case scenario assumes an increase in poverty of 25 percent. ▪ The greatest threat to poverty reduction in Asia is the possibility of an HIV/AIDS crisis. ▪ Analysis of the data that is available suggests that progress towards the achievement of MDGs is generally behind schedule and, in many cases, far behind schedule. *Applications of ICT for poverty reduction* ▪ To be valuable, information needs to be relevant (contextualised content, in local language), timely and in the possession of people who are able to make use of it (functional, IT literacy). ▪ Barriers to equitable Internet access include lack of ICT infrastructure, restrictive government policy and regulation, high cost, low IT literacy, irrelevant content. ▪ An important area of innovation in ICT for poverty reduction is to exploit the particular strengths of different ICTs by combining them to deliver a more complete communication package. ▪ Impact evaluation is important for all poverty reduction initiatives. However, evaluating the impact of ICT-based initiatives is problematic because most initiatives utilise ICTs as

	tools in a broader poverty reduction strategy rather than as a 'solution' in themselves.
What new issues are raised for further examination?	Further experimentation and innovation is needed to improve effectiveness of poverty reduction efforts. This should include pilot programmes, evaluation and dissemination of research findings.
What success factors and failure factors were identified?	
What generic tools were used and how effective were they?	
What is contribution to the growing body of knowledge and understanding?	*Best practices for targeting the needs of the poorest* ▪ Identify the most pressing needs in the target community and work to address one or more of those needs. ▪ Specialise in meeting a particular need and work with specific groups who need this service the most. *For initiatives to reach the masses* ▪ Initiatives should be readily expandable and/or replicable. ▪ Investment will be targeted to designing and testing an effective working model that can then be used to reach many more people at low marginal cost. ▪ Pilot initiatives need to demonstrate both impact and competitive advantage to justify efforts towards expansion/replication, and demonstrate absence of negative social impacts. ▪ For addressing poverty in urgency, initiatives need to be immediately expandable and/or replicable. ▪ For addressing the issue that poverty is resilient, initiatives need to be organisationally and financially sustainable. *For cooperative approach from stakeholders in all sectors to combat poverty* ▪ Develop working partnerships between stakeholders from government, civil society, private sector, academia and networks. *Community development* ▪ Community engagement through participatory approaches to ICT needs analysis, content development, strategic planning and evaluation. ▪ Include gender analysis ▪ Emphasise the role of community-based organisations.

	Communications and learning ▪ Implement communication strategies and content development strategies that take into account cultural and social preferences in communication and learning.

Study 8 Title	**Monitoring The Digital Divide**
URL	http://www.google.com/url?sa=U&start=2&q=http://www.orbicom.uqam.ca/projects/ddi2002/ddi2002.pdf&e=10342
The approach adopted by the report.	Meta analysis at country level
Who were the target beneficiaries?	National planners
What were the poverty dimensions under scrutiny?	Absence of access to infrastructure and information.
What issues and topics does it address?	The digital divide.
What are the key findings and lessons learned?	*Introduction of Info-state* ▪ The magnitude of the digital gap between developed and developing countries is enormous. ▪ Info-density and Info-use are rising in all countries, mostly due to ICT network and uptake associated with the newer technologies. *Empirical application of Info-state* ▪ Indicators are useful to focus on the discussions of complex issues on their important components, and to illustrate the direction of their movement and the order of magnitude of change. ▪ Indicators are not substitutes for detailed analyses of specific issues. ▪ Indicators are generally more useful when differences of some scale are concerned. ▪ Indicators are generally more suitable when comparing across countries with similar structures. ▪ The specific intended use of indicators is of paramount significance. *Analysis of Info-state of nine countries* ▪ Huge differences exist in both info-density and info-use, and thus info-state. ▪ There is an evident developmental chasm in both info-density and info-use. ▪ Progress is being made every year in every country. ▪ Growth has been generally higher in countries with very low info-states and lower in countries with advanced info-states. ▪ The digital divide is closing, but at a very slow pace. Without further intervention, the gap could persist literally for generations.
What new issues are raised for further examination?	▪ Phase II: The model can be improved and the scope of the project expanded. It can seamlessly incorporate analyses of internal country divides, as well as linkages to outside intelligence that can turn it into a performance monitoring tool.

	▪ The full potential of the project can be realised by probing beyond the core measurement challenge. Pertinent outside intelligence can be solicited. In parallel, much can be gained by undertaking crosscutting thematic studies, outside country lines. These activities will be most fruitful if done with the participation and active involvement of countries themselves, who would help shape the identity of the project. ▪ Lastly, an effort will go beyond the digital divide and gain more of an understanding of the broader knowledge divide.
What success factors and failure factors were identified?	*Data limitations* ▪ Lack of enough indicators. ▪ Lack of adequacy of fit of indicators. ▪ Insufficient quality of some indicators.
What generic tools were used and how effective were they?	*A country's ICT-isation* ▪ Info-state: a combination of info-density and info-use. ▪ Info-density: ICT capital and labour stocks (networks, machinery and equipment, skills). ▪ Info-use: uptake of various ICTs by households, businesses, governments and the intensity of their actual use. ▪ The model permits cross-country and intra-country analyses and comparisons at all levels to identify relative strengths, weaknesses and progress. It is also capable of incorporating analyses of internal country divides, and linkages to outside intelligence that can turn it into a performance-monitoring tool.
What is contribution to the growing body of knowledge and understanding?	Advances digital divide metrics beyond the mere deployment of technology and into the use of information.

Study 9 Title	**Achieving Digital Inclusion. Government Best Practice on Increasing Household Adoption of Computers**
URL	http://intel.com/business/bss/industry/government/GovGAPPWhitepaper.pdf
The approach adopted by the report.	The first paper in a series of White Papers "Achieving Digital Inclusion" Meta analysis of digital inclusion strategies of 30 different countries Case study
Who were the target beneficiaries?	Senior decision makers in government and industry. Leaders of international organisations. Senior executives in ICT companies who are involved in digital inclusion enhancement.
What were the poverty dimensions under scrutiny?	Poverty is scrutinised under the dimension of digital inclusion. Home access to computers was given special attention.
What issues and topics does it address?	- Introducing approaches to governments around the world that are working to build a digitally inclusive society, along with critical success factors for digital inclusion. - Focuses on one key aspect of digital inclusion: home access to computers. - A toolkit for policy makers to implement home computer initiatives.
What are the key findings and lessons learned?	*Common underlying features of strategies to tackle digital exclusion of all governments analysed* - Government levers (shaping legal, regulatory and fiscal framework, leveraging Government's role as a market actor, enabling market innovation). - Policy objectives (increased access to ICT, more sophisticated use of ICT, more equitable distribution of the benefits of ICT). - Outcomes (sustainable development, transforming public services, improving engagement and participation in the democratic process). - Home use of ICT is particularly important in delivering many of the social and economic benefits. - One specific tool increasingly being deployed to promote home access to computers: government, employer, employee, ICT industry partnerships to promote assisted purchase programmes. - Four practical tools for government to implement home initiatives: designing implementation strategy, drawing a stakeholder map, checklist of critical success factors and frequently asked destructive questions.
What new issues are raised for further examination?	The role of marketing and communications in tackling digital inclusion; community ICT access points or 'telehouses'; the role of wireless technologies in digital inclusion; and targeted programmes for key potentially excluded groups such as students, the unemployed, those on low incomes and older people.
What success factors and failure factors were identified?	*Three success factors of digital inclusion* - The importance of a strongly evidence-based approach. - The need for a holistic approach which addresses all the drivers of digital inclusion in parallel. - A cross-sectoral partnership approach designed to drive business model innovation. *Failure factors*:

	▪ Simply transferring an approach from one country to another.
What generic tools were used and how effective were they?	34
What is contribution to the growing body of knowledge and understanding?	Emphasis on the home use of computers.

Study 10 Title	Information and Communication Technologies For Poverty Reduction
URL	http://www.apdip.net/publications/iespprimers/ICTs4PovertyAlleviation.pdf
The approach adopted by the report.	An e-primer Meta analysis
Who were the target beneficiaries?	Project implementers
What were the poverty dimensions under scrutiny?	Low income, powerlessness, voicelessness, vulnerability, fear, deprivation of basic capabilities, lack of access to education, health, natural resources, employment, land and credit, political, participation, services, and infrastructure, being deprived of the information needed to participate in the wider society, at the local, national or global level
What issues and topics does it address?	▪ Some concepts and definitions (poverty and poverty alleviation, digital divide). ▪ How ICTs have contributed to poverty alleviation. ▪ Lessons learned from examples of applying ICTs to poverty alleviation. ▪ Framework for poverty alleviation with ICTs.
What are the key findings and lessons learned?	*Key findings* *Concepts* ▪ The digital divide is severe, not only between developed and developing countries, but also within developing countries. ▪ The digital divide goes beyond access to the technology and can be expressed in terms of multiple dimensions. ▪ There is evidence that ICTs are capable of alleviating poverty. ▪ The application of ICTs to development should always begin with a development strategy *Successful strategies of ICTs application to alleviate poverty* ▪ Provision of local language and locally relevant content. ▪ Targeting disadvantaged and marginalised groups. ▪ Promoting local entrepreneurship. ▪ Improving poor people's health (by provision of health care information, remote consultation, diagnostic, treatment). ▪ Strengthening education. ▪ Promoting trade and e-commerce ▪ Supporting good governance. ▪ Building capacity and capability. ▪ Enriching culture. ▪ Supporting agriculture. ▪ Creating employment opportunities. ▪ Reinforcing social mobilisation. ▪ Framework for poverty alleviation with ICTs.
What new issues are raised for further examination?	*Lessons learned* ▪ ICTs alone are insufficient for significant benefits to emerge. ▪ ICTs will not transform bad development into good development, but they can make good development better. ▪ Effective applications of ICTs comprise both a technological

	infrastructure and an information infrastructure.
	▪ In rural settings in developing countries, it is always a challenge to install the technological infrastructure, but the task is relatively simple compared to establishing the information infrastructure.
	▪ The application of ICTs in the absence of a development strategy that makes effective use of them will inevitably result in sub-optimal outcomes.
	▪ While ICTs provide opportunities for development, desirable outcomes always arise from the actions of people.
	▪ Participatory forms of analysis in which community aspirations and development activities are moulded and tracked in a cyclic manner are more likely to achieve desirable results.
	▪ Sustainability of ICTs has emerged as a key issue in the debate surrounding their use in development. In addition to sustaining financial viability, there is also the need for sustaining staff capability, community acceptance, and service delivery.
What success factors and failure factors were identified?	*Five principles emerge from the ICT for Poverty Alleviation Framework* ▪ Strategise for poverty alleviation, not for ICT. ▪ Reform telecommunications through privatisation, competition and independent regulation. ▪ Promote public access: aggregate demand for sustainability (which is not only financial). ▪ Reform institutions to achieve transformational benefits. ▪ Develop appropriate approaches for listening to the poor**.**
What generic tools were used and how effective were they?	
What is contribution to the growing body of knowledge and understanding?	▪ A framework describing the process of applying ICTs to alleviating poverty is suggested. ▪ Info-mobilisation, a methodology which is concerned with eliciting the information requirements of communities, and promoting local development that is based on improved information supplies. It is one way of achieving social appropriation of ICTs.

Study 11 Title	The Significance of Information and Communication Technologies for Reducing Poverty
URL	http://www.dfid.gov.uk/pubs/files/ictpoverty.pdf
The approach adopted by the report.	Analysis
Who were the target beneficiaries?	DFID staff
What were the poverty dimensions under scrutiny?	▪ Being deprived of basic resources. ▪ Lack access to information that is vital to their lives and livelihoods. ▪ Lack political visibility and voice in the institutions and power relations. ▪ Lack access to knowledge, education and skills development. ▪ Lack access to markets and institutions.
What issues and topics does it address?	▪ Information, communication and poverty. ▪ How developing country governments create information-rich environments and make ICTs effective tools for combating poverty and empowering the poor. ▪ The role of the international community. ▪ Recommendations for DFID.
What are the key findings and lessons learned?	*Information, communication and poverty* ▪ The poor lack access to information, knowledge, education, institutions, political visibility and voice. ▪ There is a strong correlation between access to education and knowledge, infant mortality, family size, and women's health. ▪ Structural impediments to economic growth, and the highly unequal nature of growth in developing countries, perpetuate poverty and inequality. ▪ The poor have information, knowledge and communication needs as do all people, yet they are often unable to address them. ▪ The poor often lack an effective voice in the institutions, policies and processes that shape their lives. ▪ Poor people will benefit from improved information flows which improve the effectiveness of government, markets and other institutions that affect them. ▪ Improving information flows and communication services is a necessary but not sufficient condition to eliminate poverty. *ICTs and poverty: impacts and impediments* ▪ ICTs have an important role to play in reducing poverty by improving flows of information and communications. ▪ ICTs are a valuable tool for information sharing and awareness raising within the wider development community, to combat poverty and advance the International Development Targets. ▪ The poor may face special constraints in accessing ICTs and using them for their specific needs.

	▪ It is important to assure that relevant information is available to the poor in their own languages. ▪ There are barriers to adaptation and innovation of applications of ICTs and content such as broadcast programmes (e.g. government monopoly of radio broadcasting, linguistic problems). ▪ The impediments to broad deployment of ICTs as tools of poverty reduction are not unique to ICT as a sector.
What new issues are raised for further examination?	
What success factors and failure factors were identified?	▪ Creating information rich societies is a key element of poverty reduction and sustainable development. ▪ Spread of technology should not be an objective in itself (poverty is the problem, not a digital divide). ▪ No single technology is a magic bullet. ▪ The enabling environment is crucial. ▪ Giving voice to the poor and helping them apply their knowledge is key. ▪ Education and skills are key enablers of the effective use of ICTs. ▪ Addressing the needs of the poor and most marginalised, particularly women and girls is vital.
What generic tools were used and how effective were they?	
What is contribution to the growing body of knowledge and understanding?	▪ Emphasises the need to embed ICTs in effective poverty reduction strategies.

Study 12 Title	**Can Information and Communications Technology Applications Contribute to Poverty Reduction? Lessons from Rural India**
URL	http://www.itd.ist.unomaha.edu/Archives/1.pdf
The approach adopted by the report.	Analysis
Who were the target beneficiaries?	
What were the poverty dimensions under scrutiny?	
What issues and topics does it address?	▪ The poverty-reducing potential of ICT. ▪ ICT projects for poverty reduction in rural India. ▪ How to realise the potential of ICT. ▪ How to achieve low-cost connectivity. ▪ Project design lessons.
What are the key findings and lessons learned?	*The poverty-reducing potential of ICT* ▪ The World Development Report 2000/01 identifies three priority areas for reducing poverty: increasing opportunity, enhancing empowerment, and improving security. ▪ ICT can be utilised to support poverty reduction strategies. *ICT projects for poverty reduction in rural India* *Supporting pro-poor market development: Computerised milk collection centers* ▪ ICT can remedy information asymmetries and stimulate poor people's entrepreneurship by better connecting them to markets. *Improving access to basic services: India healthcare delivery project* Telemedicine can diminish the cost and hardship of long distance travel for medical attention and diagnosis, and medical list-serves can deliver at minimal cost recent medical findings to health workers lacking research and technological facilities. *Improving access to government services: Gyandoot* ▪ Benefits of ICT include increased transparency, less corruption, better delivery of government services and greater government responsiveness. *Improving access to micro-finance: Smart Cards* ▪ ICTs can reduce costs and help micro-finance institutions reach clients more efficiently. *Realising the potential of ICT is not an automatic process* ▪ It requires attentive public policy formulation and careful

	project design. *Achieving low-cost connectivity: A necessary condition for pro-poor ICT* ▪ Fostering competition in the telecom sector can significantly reduce communication costs. *Project design lessons* ▪ Even if information infrastructure reaches rural areas, there is no guarantee that the poor will access ICT applications. ▪ Use of grassroots intermediaries: In most cases, poor people have to rely on a human intermediary between them and ICT, in what is termed a "re-intermediation model". ▪ Community involvement: Applications developed by or with the collaboration of local staff are more likely to be appropriate for local conditions when there is continuous involvement and feedback from the community. ▪ Information needs, locally-contextualised information and pro-poor services. ▪ Awareness raising and training. ▪ Financial sustainability, monitoring and evaluation.
What new issues are raised for further examination?	▪ Re-intermediation; whereby, poor people rely on a human intermediary between them and ICT.
What success factors and failure factors were identified?	▪ Low cost. ▪ Community participation. ▪ Relevant information.
What generic tools were used and how effective were they?	
What is contribution to the growing body of knowledge and understanding?	▪ Solid examples.

Study 13 Title	**ICTs and the Millennium Development Goals – Chapter 4 of World Telecommunication Development Report 2003**
URL	http://www.itu.int/ITU-D/ict/publications/wtdr_03/
The approach adopted by the report.	Analysis
Who were the target beneficiaries?	Policy makers, sector specialists and statistical experts
What were the poverty dimensions under scrutiny?	
What issues and topics does it address?	▪ Information and communications. ▪ Indicators to measure ICT availability. ▪ Measuring the impact of ICTs on the MDGs.
What are the key findings and lessons learned?	▪ ICTs are recognised as playing an important role in achieving the MDGs. ▪ There are several indicators for monitoring. ▪ ICTs are indispensable for providing the databases and web-based information for tracking the MDGs. ▪ The MDG indicators for ICT availability show a large increase while many of the indicators proposed for monitoring progress towards the information society are more than half achieved. ▪ There are growing bottlenecks in terms of actual usage due to knowledge and affordability.
What new issues are raised for further examination?	▪ The use of the Internet for advertising has increased and this new media has become a new battleground for tobacco control advocates and pro-tobacco forces.
What success factors and failure factors were identified?	
What generic tools were used and how effective were they?	*Indicators to measure ICT availability* ▪ Three indicators were chosen to measure ICT availability in countries: total number of telephone subscribers per 100 inhabitants, personal computers per 100 inhabitants and Internet personal computers per 100 inhabitants and Internet. *Measuring the impact of ICTs on the MDGs* ▪ It is difficult to quantify the impact of ICTs and to separate their influence from those of other factors, such as governance or economic growth. ▪ To be useful, such data needs to be collected over a period of time for an accurate, and comparable measure of impact.

	▪ While the net effect of ICTs is generally perceived as positive, they can also have negative impacts on health and the environment, and can aggravate existing disparities. *ICTs and eradicating extreme poverty and hunger* ▪ One way in which ICTs have a direct impact on livelihoods is by raising crop and livestock yields. ▪ Another way is through price information. *ICTs and achieving universal primary education* ▪ ICT-based distance training can help overcome a lack of primary school teachers by accelerating instruction. *ICTs and promoting gender equality and empowering women* ▪ ICTs promote gender equality by providing online opportunities to women that are not always available in the "off-line" world. *ICTs and improving maternal health and combating HIV/AIDS, malaria, and other diseases* ▪ Access to information through the Internet could help medical practitioners and parents find solutions to treat sick children.
What is contribution to the growing body of knowledge and understanding?	▪ Focus on indicators for ICTs in MDGs.

Study 14 Title	Most e-Government – for – Development Projects Fail: How Can Risks be Reduced?
URL	http://www.sed.manchester.ac.uk/idpm/publications/wp/igov/igov_wp14.htm
The approach adopted by the report.	Working paper (meta analysis)
Who were the target beneficiaries?	Government officials, project designers and practitioners
What were the poverty dimensions under scrutiny?	
What issues and topics does it address?	▪ The extent of e-government failure. ▪ Underlying causes of failure. ▪ A step-by-step guide to identify and address failure risks for e-government projects.
What are the key findings and lessons learned?	*The extent of e-Government failure* ▪ The majority of e-Government projects are failures. ▪ Six categories of potential costs of e-government failure can be identified: direct financial costs, indirect financial costs, opportunity costs, political costs, beneficiary costs and future costs. ▪ A key problem among e-government practitioners is a lack of awareness of these costs. *Underlying causes of failure* ▪ The gap between 'current realities' and 'design of the e-government project'. *A step-by-step guide to identify and address failure risks for e-government projects* ▪ Step 1 - assess design-reality gaps. ▪ Step 2 - determine action. ▪ Step 3a - generic gap reduction techniques to reduce the risk of e-government failure. ▪ Step 3b - dimension-specific gap reduction techniques to reduce the risk of e-government failure.
What new issues are raised for further examination?	▪ Reasons for failure of e-government projects.
What success factors and failure factors were identified?	Costs of failure.
What generic	

tools were used and how effective were they?	
What is contribution to the growing body of knowledge and understanding?	▪ Outline design-reality gaps approach to e-government project formulation and implementation.

Study 15 Title	Information and Communications Technologies (ICTs) for Poverty Reduction: When, Where and How?
URL	http://web.idrc.ca/uploads/user-S/10740245751106184692035RS_ICT-Pov_18_July.pdf
The approach adopted by the report.	Background paper: discussion, research, collaboration Meta analysis
Who were the target beneficiaries?	
What were the poverty dimensions under scrutiny?	▪ Deprivation in respect of things necessary for life - food, water, health, shelter - and others fundamental to life - education, security, opportunity, freedoms. ▪ Lack of rights, freedoms and empowerment, at both household and higher levels of social organisation. ▪ Lack of many kinds of capital - physical/economic (plant and equipment, market institutions), human (education, knowledge), political and social/community institutions etc.; all take time to build and accumulate. ▪ Associated with and worsened by war, natural disasters and major epidemics (HIV/AIDS).
What issues and topics does it address?	▪ How ICT/Internet expansion impacts on development and poverty reduction. ▪ Country cases: ICT, development and poverty reduction Experiences of OECD, rapidly changing, and other developing countries. ▪ Project/initiative and sector/issue Cases: ICT development and poverty reduction experiences of less advanced developing countries.
What are the key findings and lessons learned?	*How ICT/Internet Expansion Impacts on Development and Poverty Reduction* *In economic perspectives* ▪ Reduced transactions costs. ▪ Time and distance don't matter. ▪ Enables participation in markets or activities globally. ▪ ICTs embody a lot of knowledge. *ICT 'transmission channels' and impacts* ▪ There are broad groups of technology investments in the form of multi-purpose community access points or telecentres. ▪ There are many promising experiments and pilots in low-cost wireless broadband. ▪ PDA technologies will permit a major leap forward. ▪ ICTs can be used to instigate and support livelihoods development. ▪ ICTs are important in public sector, social services and poverty reduction management (strategies, programmes and interventions).

	Observations from ICT development and poverty reduction experiences of less advanced developing countries ▪ Diffusion of ICTs directly to (poorer) communities has been happening intensively for about a decade. ▪ In addition, and particularly in the past five years, ICTs have been applied to systemic improvements important to poverty reduction. ▪ Pro-poor access, effective usage includes e-commerce and market information services, education, health/health-education, gender empowerment, social and political empowerment, and combinations of these in multi-purpose community access investments. ▪ 'Scaling up' pro-poor access and utilisation faces challenges in all of the following areas: technology, community development capacity, national policy and infrastructure or failures.
What new issues are raised for further examination?	*Accelerated pro-poor access and utilisation* ▪ A next step for the ICT4D community intensify efforts to bring ICT access and beneficial uses to poor communities.
What success factors and failure factors were identified?	▪ Technology. ▪ Community development capacity. ▪ National policy.
What generic tools were used and how effective were they?	
What is contribution to the growing body of knowledge and understanding?	▪ Useful summary of cases.

Study 16 Title	ICTs and Poverty - A Literature Review
URL	http://web.idrc.ca/uploads/user-S/10541291550ICTPovertyBiblio.doc
The approach adopted by the report.	Literature review
Who were the target beneficiaries?	
What were the poverty dimensions under scrutiny?	▪ Absolute poverty refers to subsistence below the minimum and socially acceptable living conditions. Relative poverty compares the lowest bracket of a population with the upper bracket. ▪ Poverty is not merely in the impoverished state in which the person actually lives, but also in the lack of real opportunity. ▪ Poverty is defined as inadequate ownership or gainful control over assets (tangible and intangible), manual motor power or other forms of production skills.
What issues and topics does it address?	▪ The concepts of ICTs and poverty. ▪ The relationship between ICTs and poverty. ▪ ICTs and poverty reduction issues. ▪ ICTs and selected thematic areas.
What are the key findings and lessons learned?	▪ There is little to be gained from access to global or local resources if the skills to select, interpret and apply the information are absent. ▪ ICTs have the potential of helping the poor to acquire literacy, and marketable skills. ▪ The countries that are better positioned to thrive in the new economy are those that can rely on: widespread access to communication networks; the existence of an educated labour-force and consumers; and the availability of institutions that promote knowledge creation and dissemination. ▪ Emphasis should not only be on expansion of telecommunication systems ('access' to links in information highways), but must also consider development needs, affordability and skills development. ▪ Access to ICTs should not be seen as an end in itself. ▪ The digital gap is a result of other social gaps, and the gaps will continue to grow if the technology is not used correctly. ▪ Successful ICT interventions can only be achieved if there is an enabling environment. ▪ ICTs can contribute to socio-economic development, but investments in them alone are not enough for development to occur.
What new issues are raised for further examination?	▪ More studies are needed that focus on the social analysis of the use of ICTs. ▪ There is a need for more case studies on the importance of women and ICTs, especially as a poverty reduction mechanism, and on the impact or non-impact of ICTs on women.

What success factors and failure factors were identified?	Education, enabling environment.
What generic tools were used and how effective were they?	
What is contribution to the growing body of knowledge and understanding?	Mostly elaborates previous findings.

Study 17 Title	**ICT4D Today – Connecting People for a Better World**
URL	http://www.globalknowledge.org/ict4d
The approach adopted by the report.	Project analysis
Who were the target beneficiaries?	
What were the poverty dimensions under scrutiny?	
What issues and topics does it address?	▪ ICT4D today – Enhancing knowledge and people-centred communication for development and poverty reduction. ▪ ICT4D forum proceedings – Themes and panels of: – Innovating for equitable access. – Fostering policy and implementation. – Enhancing human capacity and empowerment. – Strengthening communications for development. – Promoting local content und knowledge. – Cross-cutting themes.
What are the key findings and lessons learned?	▪ To make ICT work for poverty reduction and development, it needs both affordable, market-driven infrastructure and multi-stakeholder efforts at all levels to help poor, disadvantaged and marginalised people use the whole range of ICTs according to their priorities and demands. ▪ ICTs provide a broad range of powerful tools to enhance both the knowledge and communication dimensions of development. ▪ ICTs contribute to development and poverty reduction through interactivity, speed, lower costs, integration. ▪ Using ICTs to facilitate access to relevant information and knowledge. ▪ Strengthening the voice of the disadvantaged in decision-making and culture. ▪ Using ICTs for networking and human communication. ▪ There is a clear trend towards cost reduction of the ICT tools. ▪ There is a need for ambitious strategies for digital inclusion. ▪ Mobile telephony is making a big difference in enhancing access. ▪ A shift from stand-alone projects towards strategic programmes with an MDG focus that form priorities of nationally owned e-strategies.
What new issues are	▪ Links ICTs with MDGs.

raised for further examination?	
What success factors and failure factors were identified?	▪ Easy access to global, regional and local knowledge. ▪ Effective leadership and facilitation. ▪ Efficient, dynamic and lean operational management.
What generic tools were used and how effective were they?	
What is contribution to the growing body of knowledge and understanding?	

Study 18 Title	Information Services in Rural China - Field Surveys and Findings
URL	http://www.fao.org/documents/show_cdr.asp?url_file= /docrep/007/ad504e/ad504e00.htm
The approach adopted by the report.	Meta survey Case study
Who were the target beneficiaries?	Practitioners and anyone else interested in establishing an information dissemination service.
What were the poverty dimensions under scrutiny?	
What issues and topics does it address?	
What are the key findings and lessons learned?	*Successful information service models* *Service station model* ▪ This is a government-driven information service centre, ▪ Key points of replication: – Government support. – Government funding. – Human resources of related departments should be integrated and consolidated to maximise the advantages of resources. *Farmers' home model* ▪ The farmers' home is established as an independent and open agriculture service facility. ▪ Key points of replication. – Government backing. – Considerable thought should be given to the location. *Association model* ▪ This type of organisation is operated autonomously by farmers with a common interest. ▪ Key points of replication: – Specialised production and scale among several farmers. Government support. – An understanding of business management. *Impact of rural information services* ▪ Farmers have better skills to actively look for the information they need. ▪ Shift from agricultural production to providing market information.

What new issues are raised for further examination?	▪ The exploration and development of information content and the improvement of information service quality need to be further studied and promoted.
What success factors and failure factors were identified?	*Success factors of the three information service models* ▪ Policy support: – Access, empowerment and democratisation. – Information costs, value and financial sustainability. ▪ Service delivery: – Building on existing systems. – Realistic approaches to technologies. – Strengthening partnerships: organisation of farmers. – Building capacity. ▪ Information service content: – Locally-adapted content and context. *Constraints* ▪ Poor farmers' capacity to use information. ▪ Low farm income level limits access to information tools. ▪ Low organisation level of farmers and small-holder farmers lowers the efficiency of information services. ▪ Lack of proper human resources in information services in rural areas. ▪ Lack of content and a need for improvement in the quality of information available. ▪ Uneven information services capacity at the grassroots level. ▪ Lack of funds.
What generic tools were used and how effective were they?	▪ A participatory approach with the involvement of relevant actors from central, provincial, city, county (district), township and village organisations and specialists, government officials, grassroots information service workers, managers of rural enterprises and farmers was adopted.
What is contribution to the growing body of knowledge and understanding?	▪ It is difficult for information services to produce large-scale effects because of the current low levels of organised farmers, market orientation in rural areas, agricultural industrialisation and specialisation. ▪ Along with strengthening the provision of information services, the need to improve the organisation, agricultural production specialisation and industrialisation levels to stimulate the demand for and guide the consumption of information must be addressed with great effort in rural China.

Study 19 Title	Integrating ICTs into Development Co-operation
URL	http://www.oecd.org/dac/ict
The approach adopted by the report.	Analysis
Who were the target beneficiaries?	
What were the poverty dimensions under scrutiny?	▪ Poverty is not about the lack of basic needs like money, housing or food. It is about a recurring cycle where individuals and communities lack influence and are unable to make the appropriate choices for themselves because of their lack of access to knowledge, because of their inability to access government and other social services, etc.
What issues and topics does it address?	▪ Principles of integrating ICTs into development co-operation. ▪ Ownership and participation.
What are the key findings and lessons learned?	*Principles of integrating ICTs into development co-operation* ▪ In the OECD-DAC Donor ICT Strategies Matrix,19 DAC members presented the following principles: – Sustainable ICT projects should be locally owned and accompanied by human capacity development (CIDA, Japan, Netherlands). – Capacity in effectively using ICT for development is often the main constraint, not equipment (majority of donors). – The private sector is instrumental in expanding ICT for development access and applications (USAID). – Governments play a key role in establishing a well-regulated, competitive enabling environment for ICTs to flourish (CIDA, EC and majority of donors). – For ICTs to have a positive development impact, the various social groups must have equal access to them, particularly disadvantaged groups such as the poor, children and indigenous people (CIDA). – Many important aspects of information and communication infrastructure are cross-border in nature, and therefore require international/regional co-operation (World Bank). ▪ Six principles of good practice: – Ownership and participation. – Coordination and collaboration. – Capacity building. – Sustainability. – Monitoring and evaluation. – Appropriateness.

What success factors and failure factors were identified?	*Factors contributing to market failure* ▪ Political reluctance to change. ▪ Lack of capacity amongst decision makers. ▪ Structure of industry. ▪ Size of markets.
What generic tools were used and how effective were they?	
What is contribution to the growing body of knowledge and understanding?	Adds to understanding of the role of government.

Study 20 Title	Information Systems in Developing Countries: Theory and Practice
URL	http://cityupress.ccnet-hk.com/Common/Reader/Products/ShowProduct.jsp?Pid=18&Version=0&Cid=60&Charset=iso-8859-1&key=962-937-110-3
The approach adopted by the report.	▪ Collected papers ▪ Telecentre case study
Who were the target beneficiaries?	Various
What were the poverty dimensions under scrutiny?	
What issues and topics does it address?	▪ Telecentre success factors.
What are the key findings and lessons learned?	▪ Influence of community characteristics on telecentre success. ▪ Importance of good telecentre management.
What success factors and failure factors were identified?	▪ Community characteristics. ▪ Telecentre management. ▪ Demand-driven approaches to information provision. ▪ Networking among telecentres.
What generic tools were used and how effective were they?	
What is contribution to the growing body of knowledge and understanding?	▪ Typology of telecentres and telecentre sustainability.

Study 21 Title	ICTs for Governance and Poverty Alleviation: Scaling up the Successes. A Study of ICT Projects in India
URL	http://www.apdip.net/projects/2003/in/index_html
The approach adopted by the report.	Multi-project survey
Who were the target beneficiaries?	Government planners and policy makers Programme implementers
What were the poverty dimensions under scrutiny?	Focuses on incomes as poverty's primary indicator. Also includes powerlessness, voicelessness, vulnerability, and fear (especially for women) as well as the deprivation of basic capabilities and the lack of access to education, health, natural resources, employment, land and credit, political participation, services, and infrastructure.
What issues and topics does it address?	▪ Project design. ▪ Community participation. ▪ Project outcomes. ▪ Political economy. ▪ Scaling.
What are the key findings and lessons learned?	Widespread scaling up requires widespread community acceptance by targeting user satisfaction through high levels of staff capability.
What success factors and failure factors were identified?	▪ Community acceptance. ▪ User satisfaction. ▪ High levels of staff capability.
What generic tools were used and how effective were they?	Survey design.
What is contribution to the growing body of knowledge and understanding?	Emphasises the influence of local factors on successful outcomes; especially the quality of management in community telecentres.

ANNX 2. SUMMARY TABLE								
	Study 1	Study 2	Study 3	Study 4	Study 5	Study 6	Study 7	Study 8
Who were the target beneficiaries?	Decision makers	The poor	WB and development partners			People living in poverty	Asia's poor	National planners
What were the poverty dimensions under scrutiny?	MDGs	Inequality	Digital divide	MDGs	WSIS and MDGs	Hand-to-mouth existence	UNDP Human Poverty Index	Absence of access to resources
What issues and topics does it address?	ICTs and planning. Services and MDGs	Strategies with ICTs	Telecoms, USP, policy	Human development and ICT diffusion	Mainstreaming ICTs into poverty reduction	Interactions with media.	Poverty and ICTs. Best practices	Digital divide
What are the key findings and lessons learned?	Political issues determine impact	ICTs as means to an end, rather than an end in itself	ICTs more affordable	Close association between HDI and TAI	Potential for ICTs but little mainstreaming is happening	Use of media. Local expression. Clear strategies	Contextualisation	Digital divide is huge, but slowly closing
What new issues are raised for further examination?	Local content already exists	How can ICTs improve the PRSP	Access gaps and market behaviour		Up-scaling of grass roots projects	Continued research	Further experiments needed	Info-state, info-density, and info-use
What success factors and failure factors were identified?	Enabling environment. Partnerships	Policy. Private sector. Content.	Regulatory issues	ICTs for MDGs	Participation. Leadership. Content	Networks. Local content		Good indicators
What generic tools were used and how effective were they?			Country groupings	Indicators		Ethnography. Action research		"ICT-isation"
What is contribution to the growing body of knowledge and understanding?	ICTs can help with MDGs	Ensuring markets work	Policy and regulatory design. Finance mobilisation	Potential and challenges for ICTs for human development	What is required for mainstreaming and up-scaling	The circumstances under which ICTs can reduce poverty	Best practices. Community engagment	Advances digital divide metrics beyond mere deployment

57

	Study 9	Study 10	Study 11	Study 12	Study 13	Study 14	Study 15	Study 16
Who were the target beneficiaries?	Planners, executives	Project implementers	DFID staff		Policy makers, sector specialists, statisticians	Government officials, project designers and practitioners		
What were the poverty dimensions under scrutiny?	Digital exclusion, home access	Voicelessness. Vulnerability	Deprivation. Lack of access to knowledge and markets				Deprivation	Absolute and relative poverty
What issues and topics does it address?	Digital inclusion. Home access to computers	How ICTs reduce poverty	Role of information. Role of DFID	Poverty reduction with ICTs	ICTs indicators to measure ICT availability. Measuring the impact of ICTs on the MDGs	The extent of e-government failure. Underlying causes of failure	Country cases for ICT and poverty	ICTs and poverty. ICTs and selected thematic areas
What are the key findings and lessons learned?	Policy, home use	Strategise for poverty reduction not ICTs	Impediments to deployment of ICTs not unique to ICT sector	Increasing opportunity. Enhancing empowerment. Improving security	ICTs good for MDGs	The majority of e-government projects are failures	Economic gains from ICTs	Access to ICTs should not be seen as an end in itself
What new issues are raised for further examination?	Marketing of ICT use	Alone, ICTs are insufficient.		Re-intermediation, poor use intermediary between them and ICT	Tobacco advertising on the Internet	Reasons for failure of e-government projects	Need to accelerate access	More studies are needed
What success factors and failure factors were identified?	Evidence-based approach	Public access. Listening to the poor	Enabling environment. Education	Low cost. Community participation. Relevant information		Costs of failure	Technology. Community development capacity. National policy	Education. Enabling environment
What generic tools were used and how effective were they?					Indicators for PC home use			
What is contribution to the growing body of knowledge and understanding?	Use of home PCs	Infomobilisation methodology	Emphasises the need to embed ICTs into poverty reduction strategies	Solid examples	Focus on indicators for ICTs in MDGs	Outline design-reality gaps approach to project formulation and implementation	Useful summary of cases	Mostly elaborates previous findings

	Study 17	Study 18	Study 19	Study 20	Study 21
Who were the target beneficiaries?		Practitioners			
What were the poverty dimensions under scrutiny?			Recurring cycle of lack of influence and choices		
What issues and topics does it address?	Enhancing knowledge and people-centred communication		Integrating ICTs in development	Telecentre success factors	Project design. Community participation. Project outcomes. Political economy. Scaling
What are the key findings and lessons learned?	Affordable. Market-driven infrastructure. Multi-stakeholder efforts	Three successful information service models	Six principles of good practice	Influence of community characteristics on telecentre success. Importance of good telecentre management	Scaling requires user satisfaction, community acceptance, capable staff
What new issues are raised for further examination?	Links ICTs with MDGs	Further studies on content development and service quality			
What success factors and failure factors were identified?	Access. Leadership. Management.	Policy. Service. Content.	Factors contributing to market failure	Community characteristics. Telecentre management. Demand-driven approaches. Networking among telecentres	Community acceptance. User satisfaction. High levels of staff capability
What generic tools were used and how effective were they?		Participatory approach			Survey design
What is contribution to the growing body of knowledge and understanding?		Problems with low levels of farmer organisation	Adds to understanding of the role of government	Typology of telecentres and telecentre sustainability	Emphasises the influence of local factors

ANNEX 1. ICT FOR POVERTY ALLEVIATION . Selected papers			
TITLE	DATE	PUBLISHER	AUTHOR
1. The Contribution of ICTs to Achieving The Millennium Development Goals. From "Good Practice Paper On ICTs for Economic Growth And Poverty Reduction" http://www.oecd.org/dac/ict	30-Mar-2005	Development Assistance Committee (DAC) Network On Poverty Reduction. Background Paper	Ichiro Tambo
2. The Contribution of ICTs to Pro-Poor Growth. From "Good Practice Paper On ICTs for Economic Growth And Poverty Reduction" http://www.oecd.org/dac/ict	30-Mar-2005	Development Assistance Committee (DAC) Network On Poverty Reduction. Background Paper	Ichiro Tambo
3. Telecommunications and Information Services for the Poor. Toward a Strategy for Universal Access. http://rru.worldbank.org/Documents/PapersLinks/1210.pdf	April 2002	World Bank Discussion Paper No. 432	Juan Navas-Sabater Andrew Dymond Niina Juntunen
4. Regional Human Development Report. Promoting ICT For Human Development In Asia 2004: Realising The Millennium Development Goals http://www.apdip.net/projects/rhdr/RHDR-Report.pdf	2004	UNDP, Elsevier	UNDP
5. Up –Scaling Pro-Poor ICT Policies and Practices. A Review of Experience with Emphasis on Low Income Countries in Asia and Africa http://www.gersterconsulting.ch/docs/Upscaling_ProPoor_ICTPolicies_Practices.pdf	January 2005	Swiss Agency for Development and Cooperation and M S Swaminathan Research Foundation	Richard Gerster and Sonja Zimmerman
6. Research. ICT Innovations For Poverty Reduction http://portal.unesco.org/ci/en/ev.php-URL_ID=17223&URL_DO=DO_TOPIC&URL_SECTION=201.html	2004	UNESCO	Don Slater Jo Tacchi
7. Digital Dividends for the Poor: ICT for Poverty reduction in Asia	2003		Global Knowledge Partnership

http://www.globalknowledge.org/gkps_portal/index.cfm?menuid=269&parentid=179			
8. Monitoring The Digital Divide http://www.google.com/url?sa=U&start=2&q=http://www.orbicom.uqam.ca/projects/ddi2002/ddi2002.pdf&e=10342	2002	ORBICOM/UNESCO/ CIDA	George Sciadas
9. Achieving Digital Inclusion. Government Best Practice on Increasing Household Adoption of Computers http://intel.com/business/bss/industry/government/GovGAPPWhitepaper.pdf	2005	Intel Corporation White Paper Volume 1.	
10. Information And Communication Technologies For Poverty Reduction http://www.apdip.net/publications/iespprimers/ICTs4PovertyAlleviation.pdf	2004	UNDP-APDIP	Roger Harris
11. The Significance of Information and Communication Technologies for Reducing Poverty http://www.dfid.gov.uk/pubs/files/ictpoverty.pdf	2002	DFID	Phil Walker, Kerry McNamara, Lindsay Wallace
12. Can Information and Communications Technology Applications Contribute to Poverty Reduction? Lessons from Rural India http://www.itd.ist.unomaha.edu/Archives/1.pdf	2003	Information Technology for Development 10 (2003) 73–84	Simone Cecchini Christopher Scott
13. ICTs and the Millennium Development Goals – Chapter 4 of World Telecommunication Development Report 2003 http://www.itu.int/ITU-D/ict/publications/wtdr_03/	2003	ITU	
14. Most eGovernment-for-Development Projects Fail: How Can Risks be Reduced? IDPM i-Government Working Paper no.14. http://www.sed.manchester.ac.uk/idpm/publications/wp/igov/igov_wp14.htm	2003	Manchester University	Richard Heeks

15. Information and Communications Technologies (ICTs) for Poverty Reduction: When, Where and How? http://web.idrc.ca/uploads/user-S/10740245751106184692O3RS_ICT-Pov_18_July.pdf	2003	IDRC	Randall Spence
16. ICTs and Poverty - A Literature Review http://web.idrc.ca/uploads/user-/10541291550ICTPovertyBiblio.doc	2003	IDRC	
17. ICT4D Today - Connecting People for a Better World. Lessons, Innovations and Perspectives of Information and Communication Technologies in Development http://www.globalknowledge.org/ict4d	2004	SDC/GKDP	G.Weigel and D. Waldburger
18. Information Services in Rural China – Field Surveys and Findings http://www.fao.org/documents/show_cdr.asp?url_file=/docrep/007/ad504e/ad504e00.htm	2004	FAO	Zhong Yong Ling
19. Integrating ICTs into Development Co-operation. From "Good Practice Paper on ICTs for Economic Growth and Poverty Reduction http://www.oecd.org/dac/ict	2005	Organisation for Economic Co-operation and Development	
20. Information Systems in Developing Countries: Theory and Practice http://cityupress.ccnet-hk.com/Common/Reader/Products/ShowProduct.jsp?Pid=18&Version=0&Cid=60&Charset=iso-8859-1&key=962-937-110-3	2005	CityU Press Hong Kong	Davison, Harris, Vogel, deVreed, Qureshi
21. ICTs for Governance and Poverty Alleviation: Scaling up the Successes. A Study of ICT Projects in India http://www.apdip.net/projects/2003/in/index_html	2005 forthcoming	UNDP-APDIP	