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APDIP e-Notes present an analytical overview of specific issues related to information and communication technologies for sustainable human development in the Asia-Pacific region. APDIP e-Notes are developed by the United Nations Development Programme's Asia-Pacific Development Information Programme (UNDP-APDIP) based at the UNDP Regional Centre in Bangkok, Thailand. For more information, visit <http://www.apdip.net> or contact info@apdip.net

Summary

The term "necessary but insufficient" encapsulates the notion that information and communications technology (ICT) for poverty reduction requires more than the mere deployment of technology.

This APDIP e-note summarizes an analysis of 21 papers and reports since 2002 that highlight the use of ICT for poverty reduction in the Asia-Pacific region. The analysis looks at the conditions required for making ICTs effective anti-poverty tools, as discussed in the selected papers and reports. The analysis also notes the gaps in current research and reporting on the use of ICT for poverty reduction.

The papers and reports reveal the multi-faceted nature of poverty and the wide range of associated conditions required for ICTs to have their optimal impact. The conditions can be divided into two categories: those that relate to (i) government interventions, and (ii) programme implementation.

Analysis of the papers and reports shows that there is a lack of concrete evidence linking ICT to poverty reduction, thus, hindering the readiness to embed ICTs into poverty reduction programmes. A wide range of pre-conditions that make ICTs effective anti-poverty tools are given but there is little explanation or analysis of how to create these conditions, and why particular ICTs are or are not chosen in the different development circumstances.

This APDIP e-Note concludes with some pointers on the way forward.

What is required to make ICTs effective anti-poverty tools?

An analysis of 21 papers and reports published since 2002 reveals the following set of associated conditions that make ICTs effective anti-poverty tools. They are presented in two categories: those that relate to (i) government interventions, and (ii) programme implementation (could also include government interventions).

Associated Conditions that make ICTs Effective Anti-Poverty Tools	
Conditions for Government Interventions	Conditions for Programme Implementation (could also include government interventions)
<ul style="list-style-type: none"> • Pro-poor policies for reform • Reform of public services for e-Government • Conducive telecommunications regulations and environment • Decentralized decision-making • Complementary infrastructure, e.g. roads • Education • Monitoring and evaluation 	<ul style="list-style-type: none"> • 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

In the absence of these conditions in any poverty reduction initiative, the use of ICTs will probably lead to sub-optimal outcomes.

Findings from the Analysis

Analysis of the 21 papers and reports shows the following:

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 organizations 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. This absence is 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 of them 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 given 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, with a greater emphasis on what could be done than on what is actually working. This suggests that there has been insufficient grounded research, as well as premature and possibly overly 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 their effects from 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.

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 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 for poverty reduction has consistently been described as a tool for achieving a particular end, until recently it has 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 it is most effective when embedded within already effective strategies for poverty reduction.

9. The papers indicate that effective pro-poor development with ICT is very similar to effective pro-poor development without ICT; but many fail to move beyond that realization. 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 environments that impede the adoption of ICT for poverty reduction 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.

Conclusion

There are shortcomings within current research and reporting on the use of ICT for poverty reduction that inhibit the continued actions required to make ICTs fully capable of overcoming poverty on a wide scale. These can be summarized as follows:

- Unclear definitions of poverty
- Vagueness about which ICTs are most appropriate under which circumstances
- Paucity of solid evidence linking ICT to poverty reduction
- Excessive reliance on processed knowledge and insufficient first-hand accounts
- Insufficient explanation of the contextual circumstances and pre-conditions necessary to make ICTs effective
- Inadequate explanation of the respective roles of the private and public sectors
- Absence of explanation of why ICTs are or are not chosen in particular development circumstances

In order to overcome these shortcomings, the following objectives should be targeted:

- More clarity with regard to the circumstances under which the private sector may or may not be instrumental in reducing poverty with ICTs
- More convincing empirical evidence of the role ICTs play in reducing poverty
- Clearer definition of the facilitating conditions that allow ICTs to be effective and how these conditions were created

- More clarity concerning which ICTs have been effective in reducing poverty and how they were used
- Better understanding of which of the many dimensions of poverty ICTs are capable of reducing most

Achieving these objectives will lead to more useable knowledge that can foster greater readiness to embed ICTs into poverty reduction programmes.

~ Roger Harris, Consultant

Additional Reading: The 21 selected papers and reports analyzed

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For a more detailed analysis of each paper, please visit <http://www.apdip.net/resources/ict-poverty-reduction/21paperreview.pdf>