

ABSTRACT

ACHIEVING MILLENNIUM DEVELOPMENT GOALS AND THE ROLE OF ICT IN SOUTH ASIA: THE DIGITAL DIVIDE ACROSS AND WITHIN THE COUNTRIES

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The level of adoption, access and impact of ICT on the social and economic parameters of development has been analyzed with reasonable rigour for several of the developed countries in the world. Unfortunately, this is not the case of less developed countries, including those in South Asia. This is only partially due to absence of temporally and regionally comparable data. It has been pointed out that the impact of ICT works out to be different at different stages of development for the less developed countries, making it difficult to attempt generalizations. Indeed, the rapid changes occurring over the recent decades, particularly those linked to globalisation, make the task of assessing the trends and pattern of absorption of this technology and their impact extremely difficult. Finally, wide socio-economic disparity as also significant differences in the level of adoption and diffusion of ICT makes it hard to determine the impact of the latter on the development process as also on the avowed objectives pursued by the governments.

Most of the countries in South Asia stand committed to the Millennium Development Goals and have launched specific measures to meet the targets, in a time phased manner. It is also well recognised that ICT plays an important role in determining the success of these policy initiatives as also accrual of the benefits to different sections of the population. Understandably, the policy and strategy adopted to guide the sectoral and spatial dissemination ICT and promote its application for meeting social goals would determine the success in achieving the MDGs. Enhancing the capacity of the agencies and people by empowering them with ICT would undoubtedly increase the level of their performance as suppliers of commodities and services as also enable them to demand changes and put pressures on the policy makers to bring about necessary legal, institutional and administrative changes for a directed dissemination of the technology.

The studies analyzing the level of development of ICT, its spatial and sectoral spread, impact on the development process etc. have unfortunately focused attention on the supply side of ICT, explicitly excluding the demand side - the socio-economic characteristics of the users. These often emphasise the negotiations among the giant companies in private sector, R & D development and the role of private sector research support, analyse the institutional legal and administrative bottlenecks in dissemination of ICT technology, creation of skilled manpower, infrastructural support needed etc. basically addressing the supply side constraints in adoption of ICT. This is understandable as most of the models have been designed for the developed countries where the problems on demand side are either non-existent or are of less consequence.

The demand side of ICT like the socio economic factors that restrict the demand emanating from social sectors and hinder the adoption of ICT, cultural and psychological barriers among certain segments of population, political economy limiting the access to a small segment of population etc. have not received due attention.

There have been a few policy initiatives as also in-depth empirical studies in recent years, analyzing the impact of ICT on development processes in less developed countries. The initiatives have come from UN ICT Taskforce, IDRC's Scan ICT project, World health Organisation and World Bank that have developed World Development Indicators including a few pertaining to ICT. Models have been worked out not only for assessing the level and scale of adoption of the technology but also facilitating transition of the developing countries to knowledge economy, identifying the problems and opportunities they are facing and monitoring their process of development and transition.

Most of these studies tend to under-play the problems of effective demand, affordability, absorption in social sectors and access of marginalized section of population. These implicitly propose expansion of ICT at the macro level without being much concerned about the problems of special and sectoral dissemination and spatial/social exclusion. Given the controversies and debates on the subject and conflicting claims, regional centre for Asia, UNDP sponsored in-depth studies for nine Asian countries to study the impact of ICT on social and economic development using both secondary as well as primary data. On completion of the study, UNDP approached Jawaharlal Nehru University to overview the developments in these nine countries based on the commissioned studies, other literature available as also secondary data available from national and international sources. The objective of this overview paper was to assess how the dissemination of ICT in South Asia is helping the countries in moving towards millennium development goals. The study identified four dimensions of development pertaining to ICT:

1. Availability
2. Efficiency and speed
3. Penetration into social sectors
4. Access to vulnerable books

The overview paper (UNDP 2004) analysed the inter-dependency of ICT with developmental indicators, particularly those reflecting performance of the countries in terms of achieving MDGs, at two points of time – first being early 90s and the second being covering the period 2000 – 2003. Indicators pertaining to average for the three years at both the points of time and changes over time, were used for examining the interrelations. The total number of indicators including proxy indicators and end-point surrogates were eighteen. It was necessary to construct these proxy indicators since information on direct impact indicators were not available from the secondary sources in many of these countries. Based on this, composite indices were constructed to measure the level and dissemination of ICT covering not only the supply side but also demand side indicators. An attempt was then made to identify the areas of concern in the

process of growth of ICT. It has been argued by De Soto that strengthening the legal system and reforming the administrative structure is the key to ensuring market efficiency not only in the context of urban land but also ICT. An earlier study examining this hypothesis based on secondary and primary data in 14 less developed countries reveal that the implementation of such proposals simply results in inequality in the access to basic amenities and exclusion of the poor from the system. Such a large in the context of the policies for promoting ICT at the national level without due concern for its sectoral and special absorption. The question that we must address is whether access to knowledge (A2K) through ICT should be primarily concerned about institutional property rights.

A study conducted for UNDP using the data at two time points analysed the impact ICT on development indicators across the countries of the world through regression model and identified the explanatory variables of the impact. The study reveals that the level of ICT adaptation improves efficiency of productive sectors. Unfortunately, however, the absorption of ICT is low in many of the social sectors in less developed countries as these lack effective demand backed up by affordability. Similarly, not much of the benefits have reached the socially marginalized groups. The study ranks nine Asian countries according to their absorption and dissemination of ICT and identifies the constraining factors.

The major problems being confronted by the less developed countries particularly those in South Asia, as identified by the overview paper, as also country specific studies, may be noted as follows:

- a. A low rate of absorption compared to other regions of the world. When compared with East Asia, South Asia achievements look even less impressive.
- b. Investments in ICT have been made based on short term gains and consequently bulk of it has gone to high growth, high profit activities rather than into social sectors or for addressing social problems.
- c. ICT has sharpened the digital divide not merely across the countries but also within these. Most of these countries have inherited serious inequalities from the colonial period. The legal and administrative systems have inherent bias in favour of the rich. The adoption of this new technology taking a segment of population into a new knowledge system has further sharpened and institutionalized the inequality, giving disproportionate share of benefits to the rich and educated.
- d. Regional inequality has been accentuated since both demand as well as supply side constraints have inhibited greater diffusion of ICT in less developed regions.
- e. Gender disparity has gone up since social constraints came in the way of women accessing the facility in an equal manner
- f. Marginalised social groups with low level of education and affordability have low access to public and private institutions providing ICT, resulting in their not receiving due share in the benefits.

The Indian Case:

There has been reduction in poverty both in rural and urban areas consistently since early seventies. Importantly, the rate of decline in poverty during 2000-2005 or 1993-2005 is faster

compared to the preceding five or ten year period. The income elasticity of poverty reduction has gone down in recent years. Increase in inequality in poverty across states suggests that poverty has got concentrated in more difficult regions and social groups. Understandably, the impact of expenditure in poverty reduction programmes on reduction in poverty is likely to be less. Consequently, poverty reduction will become more challenging in the next decade. The other disturbing facts are that unemployment rates by daily status has gone up, growth of employment among illiterates, women and casual workers (that contributes to poverty reduction) are low. The wage rates for both regular as well as casual workers have not grown over the past decade, except for graduates and for several categories, these have declined in real terms.

Notwithstanding all that, there seems to be no difficulty in meeting the MDG target in terms of poverty reduction or that of hungry population by 2015. Similarly, the rate of coverage of population in terms of improved water supply and sanitation facilities and improving the conditions of slum dwellers are concerned are high. Despite some deceleration in the achievement in recent years, the targets are likely to be met.

Figure 1 shows the relationship between incidence of poverty and levels of education for RU and UU migrants and non-migrants. Probability of falling below poverty line declines monotonically with increase in level of education for all the three categories. A detailed analyses of the data as also of the 61st round of NSS reveal that the growth in employment has been faster for the people worth primary and middle level of education. Understandably the demand has been for those who have functional literacy and can adapt and learn the skills required in the modern and fast growing sectors. Field studies do indicate that the people with such functional literacy who pick up elementary computer related skills of running a kiosk, their job prospects become very bright.

Figures 2 depicts the probability of being poor in different categories of urban centres across employment status at varying education levels, as presented in Table 9. The curves indicate continuous decline in probability with increase in level of education, reflecting the dent that schooling and college going can make on poverty. The regular/salaried workers, understandably, report the lowest incidence of poverty across all size class of urban centres, followed by self employed and then unemployed persons. The highest probabilities are reported in case of the casual workers, as noted above. Once again, the small towns report higher poverty probability than the medium and large cities across all educational categories.

Figure 1 Probability of being Poor by Migration Status Across Levels of Education

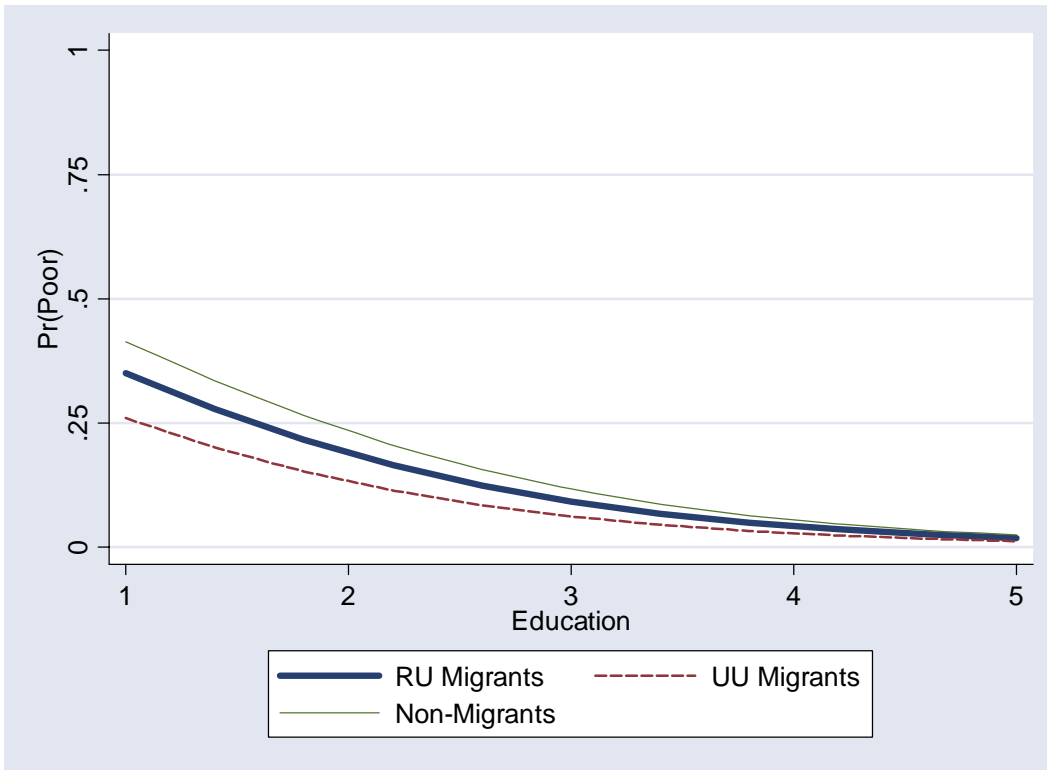


Figure 2 Probability of Incidence of Poverty by Level of Education and Employment Status

