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**A PIONEERING REGIONAL HUMAN DEVELOPMENT REPORT ON  
PROMOTING ICT FOR HUMAN DEVELOPMENT IN ASIA 2004: REALISING THE MILLENNIUM DEVELOPMENT  
GOALS**

**ICT AND POVERTY AND HUNGER: Asian Experiences**

ICT offers promise to address existing human deprivations worldwide through direct and indirect means. The direct contribution to poverty reduction of ICT for poverty reduction, for example, can come through the employment generating effects of ICT diffusion into poor rural and urban areas, and through ICT-enhanced returns from economic activities undertaken by poorer households. Indirect contributions can come through facilitating and reducing costs of the delivery of services that promote wage and self-employment or help overcome structural constraints on poverty alleviation projects.

**POVERTY AND HUNGER**

ICTs have the potential to combat rural and urban poverty by providing various economic opportunities. ICTs can make a difference by helping increase and reduce the vulnerability of returns earned by small producers from their economic activities. In Embalam, **India**, where 130 out of 210 families struggle below the poverty line, two solar-powered computers are being used to give villagers a wealth of data. Through the project, farmers have gained a better grip on their local markets as prices are more transparent and fishermen get information from satellite images on where the fish shoals are positioned off the Pondicherry coast. In **Vietnam**, villages such as Bat Trang and Hoi An, have created websites by themselves to promote selling village goods. Further, the telecentre movement is gaining momentum in the developing world as ICTs become more affordable. As tele-centres provide shared access to the communications infrastructure, it becomes possible for many to share the cost of a single connection.

Individual tele-centers have been shown to foster profound developmental outcomes within the communities they serve. The telecentre village in **Thailand**, Baan Samka, is operated by the youth to serve as a knowledge intermediary. It is used to broadcast information from the internet to the adults via the village audio tower. Currently Baan Samka is ranked as the strongest village in the district in terms of leadership, community funds, income, village committee, civic groups, occupational groups and drug abuse prevention.

## **ACCESS TO CREDIT**

Access to credit is crucial for continued poverty alleviation to support micro-enterprises, say, through self-help groups. Microfinance is a substitute for formal sector credit which tends to bypass the poor and women. In countries like **India, Sri Lanka, Bangladesh, Pakistan and Indonesia**, microfinance institutions have been particularly successful in reaching rural women. The problem, however, is that microfinance, even when successful from the point of view of reaching credit to the poor and ensuring high recovery rates, is characterised by high transaction costs which influence interest rates. **India's Swayam Krishi Sangam (SKS)** smart cards project is one example of using ICT to reduce transaction costs and reduce the cost of credit provided by self-help groups. Developing ICT applications to reduce transactions costs could contribute to sustainability and profitability of microfinance initiatives.

## **POVERTY MAPPING**

ICTs help facilitate consultative inputs, poverty monitoring, mapping and assessments to evaluate impact and enhance support to the poor within the context of a country's poverty reduction strategies. ICTs such as geographic information systems (GIS) allows for poverty mapping which combines geographically-referenced survey and census data generating poverty and inequality profiles at low levels of aggregation. This can sharpen the focus on the more disadvantaged groups and regions. **Malaysia's** database on the poor, the SINAR system has been used as a system to centralise the coordination of information on urban poor and has proven useful to governments and donor agencies.

## **IMPROVEMENT OF GOVERNMENT SERVICES FOR THE POOR**

ICTs have also been used by the governments to strengthen internal information flows, accountability and transparency, and procurement of goods and services. The **Indonesian** government has initiated a number of projects for the purpose of reducing government bureaucracy and inefficiency such as the Electronic Data Interchange (EDI) which has reduced processing time significantly. In largely rural **Vietnam**, there is a trend in the ministries to focus on the creation of databases to support development activities such as economic, agricultural and water resources management. Under Telecommunications Posts Cultural Point for Communes (TPCPC) plan launched in 1998, government aims to provide 100% of communes with access to basic telecommunications and postal services. Within rural areas, this has special relevance to remote and mountainous parts countering digital divide.

## **COMMUNITY DECISION MAKING**

ICT is able to overcome the barriers of social, economic and geographic isolation, increase access to information and education, and enable the poor to participate extensively in the decisions that affect their lives. In **Vietnam**, provincial authorities have organized radio programs in local languages for ethnic people who cannot read and speak Vietnamese, bringing necessary information for ethnic people to raise their awareness about policies and current situations in Vietnam.

## **EMPLOYMENT OPPORTUNITIES**

Using electronic job marketplaces, employers and employees can match labor skills and availability to satisfy demands. In **Mongolia** ICTs are widely utilised in the country for job search, employment and education. Telecenters in countries such as Pakistan and India have also created direct employment for thousands of local women and men.<sup>i</sup>

## **AGRICULTURAL SUPPORT**

Agriculture, like the production and exchange of commodities, is also being transformed by ICTs. **India's** network of internet-connected kiosks, known as *e-Choupals*, serves the soybean, cotton, tobacco, and shrimp farmers in its procurement network enabling farmers to get updated weather reports, local and international produce prices and also buy agricultural inputs and consumer goods for daily household use.

## **HUNGER AND FOOD SECURITY**

Asia has the largest number of undernourished persons worldwide. Accurate and timely information regarding areas of food surplus and shortages can be facilitated through ICTs. The Food Insecurity and Vulnerability Information and Mapping Systems (**FIVIMS**), is a national and global initiative that has several aims include raising awareness of food security issues, improving data quality, promoting better use of the information to drive action and on an international level, works with the Food and Agricultural Organization (FAO) to define common standards, methods and tools for information management and presentation. Such mapping systems at national and global levels help to promote better use of information to drive action. A number of FIVIMS activities are operational in **Bangladesh, Cambodia, India, Papua New Guinea, Philippines and Thailand**. Nutrition surveillance and monitoring can be effectively put in place through the power of technologies since large data can be easily processed and disseminated on a regular basis.

## **POINTERS FOR POLICY**

Problems of access, high costs, lack of funding and low human skills are factors which stand in the way of the poor's equitable access to ICT. It is crucial that policy makers consider the following factors when designing ICT-related policies directed towards poverty and hunger alleviation:

- Poverty alleviation policies have to issues related to information access, relevance of information in local context, availability of information in local languages in a simple format.
- Policies take into account the training and funding required to ensure the success and the sustainability of all ICT programs and projects.
- Policies must utilise the advantages that ICT can provide in mapping data. The importance of ICT in mapping poverty, hunger and food surpluses to provide timely information for food grain management, nutrition management and poverty management should not be underestimated.

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