

# PROBLEMS OF BUILDING INFORMATION SOCIETIES IN DEVELOPING COUNTRIES

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## *Formulating ICT strategies*

National and regional ICT strategies and policies in developing countries and regions will determine whether the growing availability of ICTs and their applications brings social and economic improvement or leads to new forms of exclusion. An effective strategy must include the accumulation of capabilities to assess the strengths and weaknesses of various hardware and software alternatives and to select specific applications in line with development priorities.

As developing countries join the global information infrastructure, they will need to establish effective ways to maximize the benefits and control the risks of ICTs. This means coordinated action, encompassing the technologies and services, as well as many aspects of the institutional environment. Strategies are needed to establish the necessary S&T, engineering knowledge, and management techniques and to build the social and economic institutions needed to reap the potential social and economic benefit of ICTs. Priority should be given to policies, regulations, education, training, and technology-assessment programs to enhance the capacities to creatively produce or use ICTs.

Given the potential of ICTs, all governments and other stakeholders need to build new capabilities to produce, access, and use these technologies. To build these capabilities, ICT strategies must be responsive to sustainable-development goals and involve all social and economic stakeholders. The government has a very important role to play: supporting new forms of market facilitation, introducing effective regulation, promoting stakeholder dialogues, and providing public services appropriate to local conditions.

## *Technology choices and capacity-building*

The national information infrastructure in developing countries will depend to some extent on the strength of their firms' R&D capabilities and their propensity to invest in the R&D that will enable them to help construct and use this infrastructure. Other equally important elements will be the R&D capabilities of public-sector institutions, the links between these institutions and the private sector, and the relationships between domestic organizations and those located in distant places around the world. The production, maintenance, and use of ICT systems almost always lead to new forms of organization. These organizational changes need to be identified and implemented by informed managers. If S&T research results and practical experience with the production and use of ICTs are shared, replication of problems can be avoided and risks can be minimized. Competition in domestic and international markets is forcing firms in industrialized countries to reduce costs and improve quality. This requires increased investment in R&D activities. Some developing countries are already giving a high priority to R&D activities in the ICT sector. Bermuda, Brazil, Indonesia, Jamaica, Malaysia, Malta, Mexico, Singapore, South Africa, South Korea, and Vietnam are among the countries that have put considerable effort into developing ICT strategies.

## *Impediments to use ICT*

*Cost of services.* Users' concern about fees charged for services. The high cost of services in relation to user incomes and earnings are identified as a serious barrier for women, the unemployed, students and poor community members.

*Cost of equipment, maintenance and supplies.* The high cost of equipment, supplies and maintenance, e.g., cost of computers, software licenses and cartridges for inkjet printers, electricity, telephones (and the charges) and the common practice of getting technicians from far away places for either routine maintenance or repairs is a constant heavy burden to carry which affected use. These costs are usually reflected in service charges.

*Inadequate physical facilities.* Small or poorly managed available space, with little privacy for users of the telephones or other equipment.

*Poor management.* Management problems, ranging from poor attitudes, to weak management, technical and even social skills. inadequate quality and number of staff, the use of poorly trained staff and volunteers with weak remuneration.

*Hours of operation.* Formal government working hours in telecentres, which limit the time during which the facilities are open to the public. Absence of access to ICT facilities, at night, on Sundays, or during public holidays.

*Inappropriate location.* Inappropriate location. Additional costs, such as for transportation to get to the telecentre, and perceived threats to the users (i.e. safety/security), or discomfort associated with the location, reduced use.

*Poor publicity.* Not enough seems to have been done to create awareness about either the locations of the telecentres or the services offered by them.

*Literacy and language.* The telecentres are perceived as places providing services for the educated on account of the language of the content, most of which is in English.