Chapter V
ICT Competency of Bangladesh to Face Broadband Diffusion

Anwarul Islam
Prime Minister's Office, Bangladesh

K.C. Panda
Sambalpur University, India

ABSTRACT

The bull's eye of Bangladesh has to achieve the millennium development goal and to adapt the globalization, necessitate pursuing the development. Information is playing a driven force in development. As a developing country, Bangladesh has taken keen initiatives to develop its sustainable information infrastructure. Teledensity and overall IT infrastructure is now in a growing stage. Recently, Bangladesh was connected with SEA-ME-WE-4 submarine cable, establishing an optical fiber backbone; its teledensity is changing in rapid pace. But the broadband diffusion in Bangladesh is not on par with other Asian countries, as it is in an embryonic stage in broadband diffusion. This chapter, therefore, tries to show the initiatives taken and the existing condition of Bangladesh to fetch the countrywide broadband diffusion. Efforts have been made in this chapter to unmask the overall development of ICT infrastructure in Bangladesh, so to judge the environment of broadband diffusion in the country.

INTRODUCTION

Bangladesh's stand on the ICT diffusion index by regional groupings does not look good—Bangladesh remains at the bottom in South Asia with a rank of 164 in 1997, 171 in 2001, and 171 in 2004—even though the country actually has greatly progressed in terms of cellular phone penetration (Rahman, 2006). Some of the Asian countries are successful and experienced in ICT, as well as broadband diffusion. Korea, Japan, China, Singapore, and Hong Kong are successful e-society creators. Even India has taken substantive initiatives in various public and private fields to establish an e-India. It is important to learn from the experiences of successful Asian economies so as to create or foster broadband demand and provide necessary support on regulatory and policy aspects on the supply side. An effective framework of cooperation among Asian economies needs to be developed for deployment of broadband and to bridge the digital divide. Some of the measures that could be considered to create an effective broadband network environment in Asia are: preparation of roadmaps

for broadband economy at state and regional levels; undertaking collaborative programs for broadband proliferation; and developing school-nets, education and research nets, library nets, community information centers, and IGrid.

Bangladesh is a South Asian developing country. Its area is 1, 47, 570 square kilometers (without sea area) with the population of 138.8 million; density of the population is 941 per square kilometer (projected in 2006). Per capita income is US$482, while the per capita GDP (gross domestic product) is US$456. Per the DCI (Direct Calorie Intake) method, the percentage of poverty is 40.9 (Ministry of Finance, 2006, p. xvii). Bangladesh has completed 35 years as an independent country and has been trying hard to get rid of the curse of poverty. Bangladesh comprises six divisions, 64 districts, 507 police stations/upazilas, and about 86,000 villages. The headquarters of the six divisions are governed by City Corporations (a specialized local government).

Information and communication technology (ICT) is declared as a thrust sector of Bangladesh (Ministry of Science and Information & Communication Technology, 2002). The government has changed the name of Ministry of Science and Technology to Ministry of Science and Information & Communication Technology, which has revolutionized the globalization and market economy, as the country's economic progress is virtually impossible without the development of this sector. The cabinet has approved the National ICT Policy and the ICT Act to help the ICT sector flourish in the country. In addition, the Copyright Act of 2000 has been amended, incorporating issues relating to software intellectual property right (IPR) (Ministry of Finance, 2005, p. 159).

This chapter includes descriptions of literature reviews, the current National ICT Policy of Bangladesh, the enabling ICT infrastructure, national and BTTB initiatives, the country wide optical fiber network, BTRC in communication development, teledensity, connectivity with submarine cable, ISP, Internet, and broadband.

LITERATURE REVIEWED

Consistent policies for competition in telecom include policy measures to induce broadband network building and policy measures to boost demand for broadband. Korea took several measures to nurture the IT industry in 1985-1987. This led to systematic dissemination of broadband vision through various initiatives including the emerging of the National Basic Information System (1987-1996), Korean Information Infrastructure Initiative (1995-2005), National Framework Plan for Informatization Promotion (1996-2000), Cyber Korea 21 (1999-2000), and E-Korea Vision 2006 (2002-2006) (Agrawala & Shera, 2004, p. 16). In December 2005, four countries (Iceland, Korea, The Netherlands, and Denmark) led the OECD (Organization for Economic Cooperation and Development) in broadband penetration, each with more than 25 subscribers per 100 inhabitants. Iceland now leads the OECD with a broadband penetration rate of 26.7 subscribers per 100 inhabitants. Korea's broadband market is advancing to the next stage of development where existing subscribers switch platforms for increased bandwidth. In Korea, fiber-based broadband communications grew 52.4% during 2005. This switchover effect is evident by the net loss of DSL (-3.3) and cable (-1.7%) subscribers during the year. Iceland takes over from Korea as broadband champ (OECD, 2005). The Global Information Technology Report 2002-2003 monitors the progress in networked readiness that is undoubtedly occurring in various parts of the world, and reveals the obstacles that prevent countries from fully capturing the benefits of ICT and broadband. The Networked Readiness Index (NRI) is the relationship between networked readiness and key variables such as gross domestic product per capita, ICT expenditure, and Internet usage. The index is composite of three components: the environment for ICT offered by a given country or community; the readiness of a community's key stakeholders (individuals, businesses, and government) to use ICT; and finally, the use of ICT by these stakeholders. The top 10 countries, as per the Networked Readiness Index, are: Finland, the United States, Singapore, Sweden, Iceland, Canada, the United