

The Technology Environment – Infrastructure and Supply in Bangladesh



One of the series of baseline studies undertaken for English in Action in 2008-09

Why this study was undertaken?

- English in Action (EIA) aims to develop language learning and teaching over a 9-year period. It is funded by the UK Government's Department for International Development (DfID).
- The goal of EIA is to "contribute to the economic growth of Bangladesh by providing English language as a tool for better access to the world economy". The purpose of the project is to "increase significantly the number of people able to communicate in English, to levels that enable them to participate fully in economic and social activities and opportunities".
- The EIA intends to achieve its purpose of goals by introducing innovative pedagogical practices in English language learning in Bangladesh. Of these, Information and Communication Technology (ICT) based interventions constitute a key component.
- Little is known, however, about the existing technological infrastructure and supply in Bangladesh in relation to ICTs. Hence, this baseline study was undertaken in early 2009 to examine the nature of the existing ICT environment in Bangladesh.

How this study was carried out?

Desk research was undertaken to determine the nature of the technology environment in Bangladesh relevant to the English in Action (EIA) project.

Information was sought in relation to: (i) the information and communication technologies infrastructure, and (ii) the electrical power infrastructure.



Key Findings

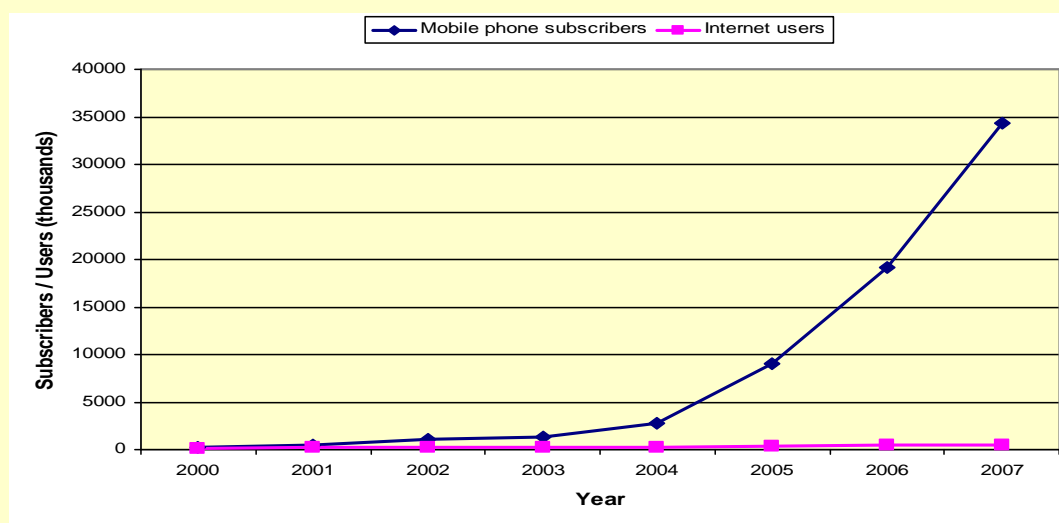
“Although the total number of telephone subscribers has increased in recent years, the growth of fixed telephone lines has been very modest”

- The total number of telephone subscribers in Bangladesh rose dramatically in recent years, from 0.6 subscribers per 100 people in 2000 to 22.41 subscribers per 100 people in 2007.
- The growth rate for fixed telephone lines has been very modest in comparison with the growth in mobile phone subscriptions.

“Bangladesh has undergone a revolution in the use of mobile phones in recent years, but access to and use of computer and Internet is still negligible”

- Mobile phone subscriptions had reached 46.69 million by the end of June 2009 with high rates of access in rural areas.
- Computer ownership and access to the Internet remain at very low levels. There were only 0.32 Internet users per 100 people in 2007.
- The overall national figure for Internet usage is 3%, but there is considerable variation by location. While 8% of metropolitan dwellers have used the Internet, only 1% of those in rural areas have done so. Variation by gender is also high: 4% of males have used the Internet compared with 1% of females.

Figure 1: Comparison of Mobile Phone Subscribers and Internet Users 2000-2007



Key Findings

“A good proportion of Bangladeshis have access to TV, but the access is higher among urban populations in comparison to rural populations; rural people have better access to radio”

- About a quarter of households in Bangladesh contain a television. In 2008, 19% of households had a cable and/or satellite connection, although about 25% of the population was able to watch cable and/or satellite television programmes. Access to television is considerably higher in metropolitan and urban locations than in rural areas.
- In contrast, the audience for radio programmes is currently higher in rural areas than in urban locations (24% of the rural population compared with 17% of urban dwellers in 2008).

“Access to electricity is much lower in rural areas in comparison to urban areas”

- Access to a supply of electricity varies considerably by location. In 2005, 83% of urban households had electricity compared with 31% of rural households. The overall national figure was 44%.

“The supply of electricity is quite low in comparison to existing demands”

- The supply of electricity is not always stable because the demand is much greater than the amount generated. For example, in December 2008 the actual generation (about 3500 MW) was considerably lower than the installed capacity for electricity generation (about 5453 MW). ‘Load shedding’ is quite common.

Table 1: Key statistics indicating the power situation in Bangladesh

| | |
|--|--------------|
| Total installed capacity (December, 2008) | 5453 MW |
| Present generation capacity (December, 2008) | Around 35000 |
| Peak electricity demand (official) | > 5000 MW |
| Demand (unofficial) | 6000 MW |
| Electricity shortage in 2006 | 1295 MW |
| Expected shortfall in 2009 | 1800 MW |
| Consumer number of BPDB (FY 2008) | 17,83,295 |
| Proportion of population served with electricity (FY 2006) | 42.09% |
| Per capital electricity consumption (FY 2006) | 169.92 kWh |

Source: Bangladesh Power Development Board (BPDB) (2008, 2006a); Saifullah (2009)

Key Conclusions

- Existing mobile phones and networks in Bangladesh constitute an encouraging means for the EIA project to be able to reach the target beneficiaries.
- Given the very low ownership of computers, limited availability of broadband technologies, poor access and high costs, use of computer-assisted technologies would be difficult for the EIA project. The situation of the ICT infrastructure in rural areas is very poor in comparison to the urban areas.
- Constant shortfall of electricity and frequent load shedding are some key constraints of implementing ICT based interventions in Bangladesh.