

## DIGITAL BANGLADESH

## BACKGROUND

Information and Communication Technologies (ICTs) are recognized as a powerful tool for socio-economic development. With appropriate policies, supplemented by realistic strategies, ICTs are known to have brought tremendous welfare to people in terms of better access to information, job creation, and enhanced public services through efficient governance and diversification of economic opportunities.

Today, the adaptation and usage of Information and Communication Technologies (ICTs) is increasingly being linked to the national economic development and subsequent human development for the countries of the world. Countries are using ICTs to participate in the international economy, to exploit emerging technologies for the betterment of their citizens, to modernize institutions and markets.

Bangladesh, like most developing countries, recognizes the potential of ICTs as an unprecedented lever for economic emancipation as well as an enabler for poverty reduction and human development – both of which are of equal importance.

#### EARLY EFFORTS: ICT AS A SECTOR

The realization that ICTs can be an important enabler for Bangladesh's development is not new. The early efforts in this regard were directed towards developing ICT as an export sector and a potential area of employment generation for ICT graduates. As early as 1991, the Export Promotion Bureau (EPB) with support from United Nations Development Programme (UNDP) and International Trade Centre (ITC) undertook an initiative to explore market potential of ICTs. Through a series of meetings and seminars, the key issues were identified and corrective measures were suggested. Another project of Ministry of Science and Technology with support from UNDP and United Nations Industrial Development Organization (UNIDO) in 1992 involved identification of problem areas and drafting of recommendations to promote ICT export of Bangladesh. In both cases, however, no follow-up action appeared to have been taken.

One of the most recognized efforts in this regard was taken in 1997. A committee was formed with Professor Jamilur Reza Choudhury as its convenor to explore the potential of an export oriented software industry in Bangladesh. The committee comprised of representatives from the government, industry, and academia, which submitted its report in September 14, 1997. Several of the recommendations of the committee were implemented which, in many ways, shaped the modern discourse around ICT in Bangladesh. Establishment of Bangladesh Association of Software & Information Services (BASIS), formation of ICT Task force headed by the Prime

Minister in 2000, substantial reduction of government levies on ICT imports, etc. can be traced back to the recommendations made in that report.

The report of the committee, often referred to as the JRC report, captured the imagination of common citizens and government alike, created renewed political commitments of the subsequent governments around ICTs.

#### ICT AS DEVELOPMENT ENABLER

World over, the use of Information and Communication Technologies (ICTs) in development programming is a relatively new concept. In 2000 ICTs assumed a new prominence, when the United Nations and G8 group of industrialized countries flagged ICT for Development (ICT4D) as a global development priority by declaring that, "everyone, everywhere should be enabled to participate in ... the benefits of the global information society". The subsequent publication of UNDP Human Development Report titled Making New Technologies Work for Human Development in 2001 was a landmark effort to explore the use of new technologies for the benefit of common citizens of the world.

The renewed interest influenced the UN General Assembly to adopt resolution 56/183 (21 December 2001) which endorsed the holding of the World Summit on the Information Society (WSIS) in two phases. The first phase took place in Geneva from 10 to 12 December 2003 and the second phase took place in Tunis from 16 to 18 November 2005.

The Bangladesh delegation in WSIS was led by the incumbent Prime Minister who endorsed the 11-point WSIS agenda and declared Bangladesh's intention to become an information society by 2006. The second summit in 2005 was attended by the then Minister for Science and ICT who reaffirmed Bangladesh's intention to follow up on the agenda as well.

#### PUBLIC SECTOR INITIATIVES

The country's first National ICT policy, approved in 2002, touched upon issues related with e-Governance and ICT4D but stopped short of addressing them from a holistic viewpoint. Especially, in the absence of concerted effort to implement the policy within the government, the real impact of the policy was not significant.

Establishment of "Support to ICT Task Force" (SICT) project was the first major public sector initiative to leverage ICT for development. Launched in 2002, the project started its operation from 2003. The project was created to implement the ICT Task force decisions. Unfortunately, the task force remained largely inactive ever since and hence the project could not benefit from the task force much. Rather it became the de facto implementation wing of the executive committee of the task force.

A year later, another project was initiated in the Prime Minister's Office with technical support from UNDP in July 2004. The activities of the project led to the

formulation of a comprehensive action plan for e-Governance including government process re-engineering and promoted the pioneering initiative to build leadership for ICT enabled change in civil administration. Appointment of a senior officer as ICT focal point for each ministry started the process of building the critical mass and awareness within the administration for ICT enabled change. The project initiative to publish 50 most frequently government forms online can be cited as one of the first e-Governance initiatives to directly benefit the citizens.

The Access to Information (A2I) Programme, a follow-up project in the PMO, started in 2007 with a proclaimed goal to leverage ICT in public service delivery and build necessary capacity of the stakeholders to promote the use of ICTs in development. This project too was supported by UNDP. True to its objective, the project initiated action research to identify the potential use of ICTs in social sectors such as education, health, agriculture, etc.

In the meantime, several other projects such as the World Bank supported ICT component of Economic Management Technical Assistance Project (EMTAP) of Ministry of Science and ICT came up with specific recommendations to leverage ICTs for development.

Finally, the largest ICT initiative in the country to date was implemented during 2007-2008 for the preparation of 'Photo voter roll' used ICT tools to prepare a credible voter list with technical assistance form UNDP. In the course of the project, common citizens of the country, most of them for the first time in their lives, saw ICT tools, and appreciated their immense potential. In parallel, about 50,000 young boys and girls were trained to operate a sophisticated software application system and carried out bulk of the activities of the project.

### POLICY AND LEGAL CONTEXT

Over the last few years, new understanding of ICT as a development enabler has made its way into the various policy documents of the government. The revised ICT Policy 2009, which has recently been approved in the cabinet, has specific direction and guidelines reflecting most of the priorities of the Digital Bangladesh agenda.

The 9<sup>th</sup> Parliament has already passed the Right to Information Act. The act has required legal imperatives that corroborates and promotes the overall context of Digital Bangladesh vision.

The cabinet has already approved the ICT Act 2009, which is expected to be placed in the 2<sup>nd</sup> session of Parliament for approval and promulgation. Once promulgated, this would pave the way to introduce the provisions required to initiate electronic signature and e-Commerce.

The policy directives to introduce Citizen's Charter at all levels of government should act as another policy incentive to promote use of ICT in delivery of government

services and information. Steps taken thus far to introduce such charter and related lessons learned would be useful inputs in implementing Digital Bangladesh.

## EMERGENCE OF DIGITAL BANGLADESH

"Digital Bangladesh by 2021" emerged as part of "Charter for Change"—the election manifesto of Bangladesh Awami League for the 9<sup>th</sup> Parliamentary Election. The declaration was made in December 12, 2008 for the election held in December 29, 2008. Though a date is attached to this agenda, it is interpreted as a long-term vision rather than a target. This forward-looking vision quickly captured people's imagination and became the cornerstone of the entire election manifesto.

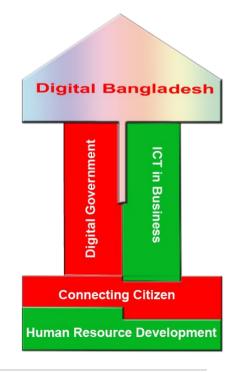
In the backdrop of a markedly pro-poor election manifesto of the Awami League, the Digital Bangladesh vision is unique as it proposes to mainstream ICTs as a pro-poor tool. Indeed, this is probably the first time in the history of Bangladesh that the vision of poverty reduction and human development leveraging ICTs was proposed that received instant support from common citizens.

In many ways, the "Digital Bangladesh" vision took the policy makers and practitioners by surprise. While the basic premise of the vision is not new, the all-encompassing nature of the vision demands a fundamental shift of mindset of the implementers. It not only needs thinking anew but new ways of thinking.

## KEY ELEMENTS OF DIGITAL BANGLADESH

The "Digital Bangladesh" vision needs to be translated in the context of the overall election manifesto of the Awami League led Grand Alliance that now forms the largest chunk of this government's commitment. In Digital Bangladesh, ICT needs to be an enabler to the nation's struggle to achieve the economic, cultural, and social emancipation. Indeed, one of the key tenants of "Digital Bangladesh" is its unmistakable bias towards the poor who constitute a large majority of the people.

In many ways, 'Digital Bangladesh' is a reincarnation of the vision of 'Sonar Bangla' (Golden Bengal). Hence, it may be wise to keep it as an overarching objective rather than a conclusive target. From this viewpoint, where it makes sense, ICTs and new technologies need to



be leveraged in all aspect of national progress of a Digital Bangladesh. Some of the key areas in which ICT can be leveraged immediately are outlined below.

## HUMAN RESOURCE DEVELOPMENT (HRD)

Digital Bangladesh needs people who can take it forward and thrive in such a country. This component is about the future of "Digital Bangladesh" and is a precondition to propel the agenda to its final destination. Clearly, a student who used ICT to learn will find it easier to use ICT to apply whatever s/he learned in the Digital Bangladesh.

The key objective here is to make the best use of new technologies to build worldclass skills in all areas of study especially mathematics, science, and English language. Taking advantage of newer and less costly delivery tools and digital learning contents the aim will be to build the competencies needed to compete in the globalized 21<sup>st</sup> century world.

ICT for education or e-Education will also deal with providing vocational and 'lifelong education' opportunities to the youth and adults in order to retool them and build newer skills to improve their productivity.

The Ministries of Education, and Primary and Mass Education have realized the potential of ICTs in elevating the educational quality and have deployed initiatives to develop digital materials for school education. Realizing the inadequacies of the digital platforms in schools, especially the absence of them in primary schools, the ministries have started with digital materials for teacher education which is a crucial area of building the capacity of teachers who are going to build the soldiers for Digital Bangladesh. Innovations like use of TV and Video in classrooms are being tested in several instances. Radio based adult education programme has already shown great prospects. Use of videotaped TV programme as learning tools is becoming popular among the farmers. Initiative to use digital media and e-learning platforms are being undertaken to provide on-demand and on-the-job training and skills building for the public servants.

In this context, as part of the Digital Bangladesh initiative, efforts need to be taken to develop a sustainable institutional mechanism that enables creation and distribution of digital content by both public and private sectors and explore new and sustainable delivery platforms for rural schools.

#### CONNECTING THE CITIZENS

Ensuring access to the Digital Bangladesh for all citizens, poor or rich, literate or illiterate, urban or rural is another foundation stone of Digital Bangladesh. The key objective of this component is to find a sustainable channel so that people can benefit from all that the Digital Bangladesh would offer in a manner that s/he could easily use and afford.

More specifically, this component will deal with i) building awareness and capacity of the communities to access public services leveraging ICTs, ii) issues associated with local language content and locally relevant content, iii) innovative access channels and platforms for common men/women, etc.

This component will also deal with establishing two-way channels to promote participation of grassroots in policy discourse and provide feedbacks to the policy makers on particular policy adjustments.

Already mobile phones have created a sustainable channel of communication. The use of mobile phone based voting in to determine the best singing talent in a TV show probably represents the most popular use of the device to reach to the poorest of the poor. Several pilots are underway to use voice-based systems that provide required agricultural information to the farmer. Tele-medicine, both as a tool for off-site service by medical specialist and as a call-centre service are tried and tested in local context.

Several initiatives to develop community based and/or rural shared internet access points by both private sector and government are underway. Already Bangladesh Tele-centre Network, an association of private sector practitioners, has deployed many hundreds of these centres. At the same time, initiative to establish such shared access points in Union Parishads, Upazilla Parishads, Farmers' Clubs, Agriculture extension service stations, Pauroshovas are underway under the direct/indirect auspices of government agencies.

Phone-in programmes in public and private TV channels have become a regular feature already. Introduction of phone-in feature in the nationally televised programme on agricultural issues, health issues, legal, and human rights issues already attracts a large audience.

Community radio can emerge as another channel of communication for the poor and the marginalized. If people's participation in programming and management can be ensured, community radio can be a sustainable platform for people-to-people communication and problem solving.

As part of the Digital Bangladesh vision, new efforts should be undertaken to develop sustainable delivery channel systematically in partnership with private sector as the last mile provider. Shared and specialized service outlets, both in private sector and at the local government bodies, to cater one-stop services to the citizen need to be established and promoted.

Low cost broadband access to the internet is another key priority in this regard. It may be mentioned already a private company has obtained license to build fibre optic backbone to connect all Upazilla under the "Nationwide Telecommunication Transmission Network" and started pilot operation as well. Policy incentive to

promote low cost 3<sup>rd</sup> generation cellular and WiMax connectivity to rural Bangladesh may also be considered as a policy priority.

#### DIGITAL GOVERNMENT FOR PRO-POOR SERVICES

Government exist to execute authority and function to make and the power to enforce laws, regulations, or rules with the ultimate objective is to serve the citizen. The key objective of 'Digital Government' would be to leverage technology in all spares of government with a sharp focus to ensure delivery of such services to those who are the least served. The two key sub-components of this component are e-Citizen Service and e-Administration to delivery e-Citizen Services.

Unlike most developed countries, government is the key provider of citizen services and public information in Bangladesh. Communities rely on public services like agriculture, health, education from the government. Hence, one of the key subcomponents of the Digital Bangladesh would be provision of ICT enabled services (e-Citizen services) by public agencies. It may be noted that priorities should be given to services that are critical for majority of the citizen like education, health, agriculture, social safety nets, etc.

The key objective of the e-Citizen service sub-component is to ensure anytime, anywhere services to anyone in need of such services at a cost that he/she can afford and in a way that is transparent to all. The key outcome of this component is to make sure that people, especially the poor and marginalized, get the most out of public provisions of information and services.

Hence, the key deliverables of e-Citizen Service initiative is innovative service design and delivery channels that suits citizen's lifestyle. In terms of specific indicators, this would mean i) reduced number of interaction, especially face-to-face interactions, between the service provider and recipient, ii) delivery in a speedy and cost effective manner, iii) extended service availability (where possible 24x7 window), etc.

As a special case for service delivery, this sub-component will also focus on providing services and information to government employees and the business communities (especially the small business entities) in a convenient and cost effective manner.

Payment of utility bills through mobile phones, SMS-based railway ticketing information, etc. are some of the pioneering initiatives of the government which can be cited as examples of ICT-based service delivery. These initiatives enable common citizens to receive information and services in a manner that is most convenient to them. For example, the initiative that allowed customers to pay dues to Titas Gas Distribution Company Limited liberated the customers from standing in long queues to pay their dues, and instead, afforded them alternative ways to settle their bills any time and from anywhere suiting their lifestyles.

It is important to note that more than a dozen similar initiatives are currently under implementation that should create an extensive knowledge base to better design and implement these types of initiatives in the future. What is required now is an institutional mechanism, which will identify and foster similar initiatives in the future and provide required technical assistances for implementation of such initiatives.

The second important sub-component of "Digital Government" would be e-Administration. This sub-component would involve leveraging ICT tools to encapacitate the civil servants and administrative processes with an explicit objective to plan, design, and implement efficient production and delivery of citizen services. Use of database systems at Bangladesh Bureau of Educational Information and Statistic to support effective management of the secondary schools and teachers is an excellent example of such initiative.

#### ICT IN BUSINESS

This component will deal with three broad issues of Digital Bangladesh namely i) access to market, ii) promotion of ICT business to support Digital Bangladesh and iii) ICT as an export oriented sector.

Leveraging ICTs to promote access to markets by the disadvantaged producers and businesses would be a prime objective of this component. By extension, this also includes the issue of leveraging ICTs to maintain a socially responsible and equitable market for all. By extending initiatives like cellBazar and mobile payments, this subcomponent can open up markets for small entrepreneurs and large business alike. Introduction of ICT platforms to participate in public procurements (e-Tender) is yet another example of how ICTs are leveraged in various parts of the world to open new opportunities for the businesses.

The second sub-component would be the issue of promotion of the ICT business. The basic objective would be to support the industry so that it may provide the services and technology needed to sustain the three other components of Digital Bangladesh. This sub-component would need to deal with assistance to the private sector to attain the international standards by bootstrapping some of the training institutions/mechanism and by promulgating the necessary standards and benchmarks required to maintain and encourage quality.

Finally, the third sub-component involves promoting the ICT business sector to boost its potential for ICT export and earn foreign currency. This may also involve providing the right springboard required for the local companies to access the global market. In case of both the second and third sub-component, the other key objective will be to generate gainful employment for the youth and for the country.

Initiation like m-banking and electronic payment as well as electronic business transactions are few key initiative in this regard. Supporting the industry to develop

required human resources and promoting market access would be another dimension of the initiative.				

# APPENDIX-A

## **SUMMARY OF WSIS PLAN OF ACTION**

## **WSIS ACTION LINES**

•	C1. The role of public governance authorities and all stakeholders the promotion of ICTs for development			
•		C2. Information and communication infrastructure		
•		C3. Access to information and knowledge		
•		C4. Capacity building		
•		C5. Building confidence and security in the use of ICTs		
•		C6. Enabling environment		
•		C7. ICT Applications:		
	✓		E-government	
	✓		E-business	
	✓		E-learning	
	✓		E-health	
	✓		E-employment	
	✓		E-environment	
	✓		E-agriculture	
	✓		E-science	
•	C8. Cultural diversity and identity, linguistic diversity and local content			
•		C9. Media		
•		C10. Ethical dimensions of the Information Society		
•		C11. International and regional cooperation		