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# **DIGITAL BANGLADESH**

## **FOR SERVICE AND INNOVATION**

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# Digital Bangladesh for Service and Innovation

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# Introduction

Since 2009, Bangladesh has been witnessing impressive growth and development. The country aspires to reach an upper-middle income status by its 50th birthday in 2021. To achieve the upper-middle income goal, the Awami League led government has devised the “Perspective Plan of Bangladesh (2010-2021): Making Vision 2021 a Reality” - which envisions a nation with high quality living standard, free of poverty and hunger. Through the Perspective Plan 2021, Bangladesh has breaking records in earning remittance, attracting foreign direct investment and piling up foreign exchange reserves. The country is also implementing the numerous fast track development mega-projects, which are mend to transform the economy.

One of the key tools for achieving Vision 2021 was the earmarking of the 'Digital Bangladesh' policy, the brainchild of Prime Minister Sheikh Haisna and her ICT Affairs Adviser Sajeeb Wazed, to utilize ICT (Information and Communication technology) as a tool for development and governance in vital sectors. The aim was to transform Bangladesh into a technologically advanced nation by 2021. Driven by widespread digitization in the public and private sectors, the country has seen exponential growth in its internet connectivity, mobile phone usage, IT export earnings and the use of ICT in education and accessibility of public services. In recent years, the surge in ICT trainings by the Government has opened a new horizon for youth employment through outsourcing.

When the Digital Bangladesh efforts were undertaken in 2012, only 20 million Bangladeshis were accessing mobile phone. Today that number has exponentially reached 120 million – and counting. A total of 5,275 digital centers have been set up across the country. The digital centers have holistically provided 120 million individual services - like registration of 70 million births, and providing essential information to more than 2 million overseas job-seekers – to general citizens. Around 1.3 million ICT professionals, along with, 10,000 ICT entrepreneurs, have become self-reliant, helping the country earn some \$300 million since the inception of Digital Bangladesh policy. Given the quick progress of the ICT sector, Bangladesh is emerging as a hub for ICT outsourcing. The total size of the ICT market in Bangladesh was merely \$26 million in 2008. Today, the market size has grown to a remarkable \$600 million.

Another noteworthy advancement in the science and technology sector, is the launch of Bangabandhu-1 – Bangladesh's geostationary communications and broadcasting satellite. With the launching of the country's first satellite, the country has entered the space age on 11th May, 2018 (US Standard Time). This publication maps the journey of 'Digital Bangladesh' since its inception, especially in terms of its impact in enabling the people.



01

## ICT Visionaries

*In the last nine years, owing to the fantastic work done by Prime Minister Sheikh Hasina and her ICT Affairs Advisor Sajeeb Wazed, several international awards and recognition for ICT have been won by the country.*

Until over a decade ago, even in 2007, Bangladesh did not feature on the world map as ICT potential country. All that changed, when Prime Minister Sheikh Hasina, with the help of her ICT Affairs Advisor Sajeeb Wazed, unveiled the Awami League's 'Digital Bangladesh' strategy in 2008. The plan was to transform Bangladesh into a technologically advanced nation by the year 2021. For the first time, such an ambitious vision was incorporated into the electoral manifesto of any political party. This vision was put into motion right after the Awami League formed the Government - following a landslide electoral victory in December 2008.

The plan put into motion several actionable measures for realizing the vision of 'Digital Bangladesh'. The Access to Information (a2i) project under the Prime Minister's Office (PMO) rolled out several initiatives to harness the power of ICT to deliver public services -such as the Digital Center- readily available to the people. The plan is also devised to nurture grassroots innovation in the ICT sector. The Ministry of Post, Telecommunications and Information Technology was divided into two divisions: the ICT Division and the Post and Telecommunications Division, in order to better coordinate the work at hand and to ensure accountability.

Digital Bangladesh has four broad aims: developing a digital government, connecting citizens digitally, developing IT based human resources and promoting the ICT industry. In the last nine years, owing to the fantastic work done by Prime Minister Sheikh Hasina and her ICT Affairs Advisor Sajeeb Wazed, several international awards and recognition for ICT have been won by the country, including multiple awards from the International Telecommunications Union (ITU), World Information Technology and Services Alliance (WITSA) and the World Society on the Information Society (WSIS).





02

## ICT for Inclusive Public Services

### National Helpdesk

**999**

Emergency Helpline is fully-functional

**1.3**

million calls responded

**60**

calls per minute response capacity

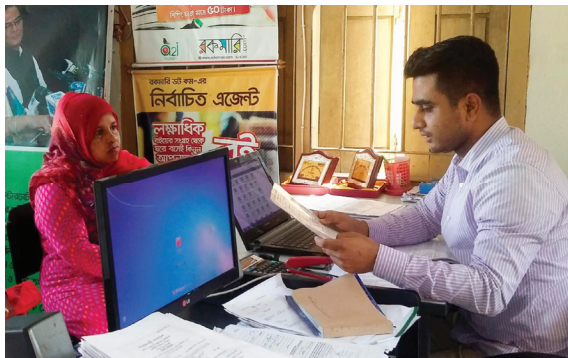
**321**

police stations have 999 sets

In 2017, Bangladesh launched a toll-free national emergency helpline '999' for immediate needs in cases of any accident, crime, fire or medical emergency. The service is open round the clock and can be availed even at zero-balance in the mobile-phone account. Till November 2018, 1.3 million calls were responded. The helpline started with three services: crime/abduction/accident/disaster-related services, fire services and ambulance services. Now the provision of services has expanded and issues like cybercrime, violence against women and children, child marriage and narcotics have been also been added. In the primary stage of the helpline,

the only way to call the toll free 999 number was from T&T and cell phones. But on December 2018, the desk introduced helpline service from Facebook messenger, along with the provision found in the "BD police helpline" app. With 463 employees, the national help desk was now capable of responding to 60 calls every minute. To ensure prompt response, the authorities have already set up 999 sets in 200 police station. More 999 sets are in the pipeline.

## Digital Centers



**5,275**

Digital Centers

**200**

Types of Services

**4 Million**

Monthly Users

**US\$ 0.6 Million**

Monthly Income

One of the principal methods of the current Government of Bangladesh is to spread the benefits of digitization to the smallest units of local government through the 'Digital Centers'. In seven years, 5,275 digital centers have been set up at union level. These centers are providing 200 types of digital services to the rural people. Every month, around 4 million people are benefitting from these services. These centers are also promoting entrepreneurship in the local level. More than 10,000 entrepreneurs are involved with these centers. Monthly income of these entrepreneurs is more than US\$ 600,000. The total income from these centers in 2015 was around US\$ 180 million.

## Post e-Centers

The government, apart from digitizing the postal service, has also embarked on a project to transform 8,500 post offices, from across the nation, into e-centers for spreading IT services to the rural people. Of the 8,500, 8,000 post

offices are at the union level, while the rest are from sub-district level. To test the efficacy of the project, e-services were first provided from 2,500 post offices on a trial basis. Under the 'Post e-Center for Rural Community' project, till April 2016, 5,006 Post e-Centers have gone into operation. By June 2017, the services would be operated from all planned 8,500 post offices across the country. These centers are providing rural people with the opportunity to browse the internet, transfer remittance, check academic results, fill up application forms, and gather information about agriculture, education and health.

## 333 Call Centre

Bangladesh government's digital service innovation wing 'a2i' established the 333 Call Centre to provide citizens with information on procedures for receiving public services. Anyone anywhere can dial helpline 333 and receive information about government offices/officers, tourist attractions, 64 districts and redressal of different social problems. 333 started its journey with the motto "Government information and services, anytime". Locals can 24/7 dial 333 and NRBs can dial to 09666789333 to receive information. Citizens can also inquire and question various social issues, and get direct response from designated senior public servants such as Deputy Commissioners and Upazila Nirbahi Officers. Furthermore, using this helpline, they can seek assistance from Deputy Commissioners and Upazila Nirbahi Officers during disasters. So far, a total of more than 2.4 million 333 calls have been answered. More than 2000 child marriages have been stopped through 333.

## Online Grievance Redress System

Online Grievance Redress System (GRS) is a system which allows people to submit their complaints regarding any public service or product. The Cabinet Division especially requested to develop this GRS system to establish good governance. The system was developed in September 2018. An app is under development for better outreach and communication.



## Agriculture Call Centre



To bring agricultural services to farmer's doorstep and expanding e-agri services more easily government has developed a digital platform named Krishi Batayon (Agri Portal). Alongside, the Krishok Bondhu call centre service has also been established to provide agriculture related advices and services. More than 67,000 components of information have been inserted in the portal. These components range from information on plants, fertilizers, equipment, local agriculture officers to local market information. On an average 6,000 calls are being received through the call center. The agriculture portal has information on 8 million farmers. The information portal has been developed with help of 15,000 agricultural extensions workers around the country.

## Judiciary Portal and e-Court System

Judiciary portal is filled with information on Bangladesh's judiciary division. This portal started its journey to ensure a transparent, people-oriented, innovative and accountable judiciary system where people can get information and services easily. It is designed to reduce the gap between people and the judicial system. Currently, the portal is being implemented in the Supreme Court along with 69 lower courts and 8 tribunals. Government has also developed an E-Court system where executive magistrates of mobile courts can operate the services through online system. Seizure list making, complaint filing, charges filing and taking deposition are some of the tasks which can be done through E-Court system. Higher officials can see the case information in graphs and can have information on the types of crimes. E-Court system helped finish 100,000 cases through 46 thousand mobile courts.

## e-Land Services

In issues on land management, mutation is an important and people-friendly service. Every year almost 2.2 million mutation cases are filed. These cases are time consuming, expensive and in most cases corruptive. Through the online E-Mutation service. The government is reducing the time and cost to solve these cases, with the mission to eliminate corruption in this sector. To this date, through this system, 160,000 mutation cases have been resolved. The E-Mutation service has already been installed in 61 districts and 321 upazilas. By the end of 2019, every upazila will be integrated into the E-Mutation system.

## Bangladesh National Portal

**27,478**  
Websites

**2 Million**  
Contents for Users

Bangladesh government's special programme "Access to Information (a2i)" has developed a single platform, the National Web Portal ([www.bangladesh.gov.bd](http://www.bangladesh.gov.bd)), with 235 government e-services including passport/visa application, online jobs & admission application, recruitment, police clearance, utility bills, income tax and ticket booking. This portal is also interlinked with seven functional government websites and apps, namely Muktopath, Teacher's Portal, Kishore Konnect, SebaKunjo, Uttoradhikar, Nothi and Bangladesh Directory. The portal also contains around 1,635 forms of public offices. More than 46,000 government offices are connected and 27,488 government websites are embedded in this platform. A section called "Trade and Commerce" is present where information about share markets, trade license and Bangladesh Trading Corporation can be found. Mass people can receive extract data and information on all the essential bodies of government. From government job announcements to procedures for applying for adult allowances, this portal is a one-stop solution for a multitude of people's needs. The service has become one of the strongest pillars of the Digital Bangladesh agenda. Its replicability model makes it a great product for the digitalization measures in other developing countries.



03

## Bangladesh Enters Space Era



On May 12, 2018, Bangladesh has entered the space era with the successful launching of its first satellite 'Bangabandhu-1'. With this technological feat, Bangladesh has become the 57th country to have its own satellite in outer space. This accomplishment has come to reality with the direct supervision of Honorable Prime Minister Sheikh Hasina and her ICT Advisor Sajeeb Wazed.

In 2009, after coming to power, Awami League-led government initiated the journey to launch a communication satellite. In this regard, Bangladesh Telecommunication Regulatory Commission (BTRC) carried on the groundwork including securing an orbital slot and coordinating with the International Telecommunication Union (ITU) regarding international regulation to launch a satellite. The Executive Committee of the National Economic Council (ECNEC) approved the satellite project in 2015. In November 2015, BTRC signed a \$248-million deal with a French company, Thales Alenia Space, to manufacture and launch the satellite. Subsequently, the orbital slot for the satellite was bought from the Russian company "Intersputnik" at \$28 million in January 2015.

Thales Alenia Space, a Franco-Italian aerospace manufacturer, was contracted for the structure

and controlling system on land and space. After completion, it was handed over to BTRC. Then, SpaceX was appointed to complete the satellite launching process. To control the satellite after launching into space, 'Bangladesh Communication Satellite Company Limited' has been formed by the government. The company looks after the appropriate use of the satellite and its commercial activities.

The historic moment of launch came on US Standard Time 16:14 pm on 11 May 2018. Bangabandhu-1 was successfully launched from Kennedy Space Centre's launch complex 39A at Cape Canaveral, Florida. SpaceX's latest and most powerful rocket Falcon-9 bore the 3600-kilogram heavy satellite to the space. Under the current model, Thales Alenia Space will observe the satellite jointly with Bangladesh from three ground stations in USA, Italy and South Korea. After three years, which proper transfer of technology, Bangladesh will have the full control of the satellite. Bangladesh has already established two ground stations at Joydebpur, Gazipur and Betbunia, and Rangamati. Between these two, the one at Gazipur will perform as the main controlling center of the satellite. Thales Alenia has already trained 18 Bangladeshi youths to operate the ground stations.

Bangladesh will operate the Bangabandh-1 satellite from 119.1° East, using a payload comprising 26 Ku-Band and 14 C-Band transponders to deliver focused telecommunications coverage to Bangladesh. One transponder is equivalent to 36 MHz. Ku-band covers Bangladesh and its territorial area of the Bay of Bengal, India, Pakistan, Nepal,

Bhutan, Sri Lanka, Indonesia and the Philippines. C-band covers Bangladesh, India, Indonesia, the Philippines, Myanmar, Bhutan, Nepal, Sri Lanka, Afghanistan, Pakistan, Tajikistan, Kyrgyzstan, Uzbekistan, Turkmenistan, and portions of Kazakhstan.

## Bangabandhu-1 Satellite

01

Thales Alenia Space built the satellite

02

Launched on 11th May, 2018

03

SpaceX launched it from Kennedy Space Center, Florida

04

Orbital Slot 119.1 degree east longitude

05

Covers South Asia, Central Asia, Indonesia and the Philippines



Ground station of Bangabandhu-1 satellite at Gazipur

## Benefits of Bangabandhu-1 Satellite

Launching of the Bangabandhu-1 satellite is undoubtedly Bangladesh's most sophisticated digital step-up in Bangladesh's history. It has opened doors to major opportunities like expanding the country's internet coverage, accelerating broadcast connections, getting more accurate natural disasters related information and opportunity to earn foreign currency.

In Bangladesh, there are more than 700 union parishads (lowest tier of local government) without any internet coverage. Through Bangabandhu-1, the government will be able to connect these areas with the broadband internet network. The satellite will enable Bangladesh to predict natural calamities more accurately; and the national emergency services will remain active in times of any unexpected natural disasters, even when the traditional telecommunication network systems collapse. Until now, Bangladesh had to depend on ground

stations for natural disaster warnings. The Bangabandhu-1 satellite will help in taking more prompt weather precautions, as well as in providing assistance in affected areas.

The Government of Bangladesh is also targeting to earn a huge amount of foreign currency by selling the satellite's transponder to other countries. It will also save the amount of currencies spent by the local television channels, which use foreign satellites for broadcasting purposes. Currently, there are 37 television channels in Bangladesh, spending nearly \$14 million per year for using transponders of Apstar-7 and Asia set satellites. The Bangladesh Communication Satellite Company Limited also plans to sell some of its transponders to Indonesia and the Philippines. Bangabandhu-1 satellite will make people's access to international TV channels faster and easier. It will make video distribution easier by enabling broadcasters to effortlessly distribute their content to intermediaries like cable TV network operators or re-broadcasters like DTH operators.

## Benefits of Bangabandhu-1 Satellite



Internet coverage in  
most remote areas



Uninterrupted  
internet service



Earning foreign  
currency



Effective disaster  
preparedness



Faster broadcast  
service



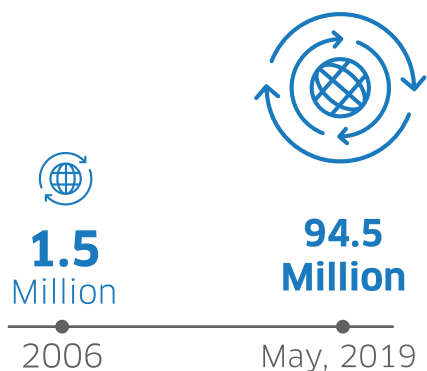
04

## Digital Connectivity



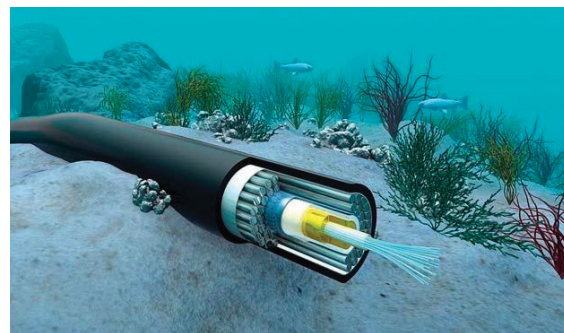
### Internet Users

#### Internet Users



The number of internet users in Bangladesh has grown at an astonishing rate. In 2006, there were only 1.5 million internet users in the country. Today, that number has gone up to almost 94.5 million. Bangladeshis use a range of mediums for accessing the internet; including mobile internet, wireless broadband and fixed broadband facilities. Of the three types, mobile internet is the most pervasive with more than 88.6 million users at the end of May, 2019.

### Second Submarine Cable



Since September 2017, Bangladesh has been hooked into to the SEA-ME-WE 5 optical fibre submarine communication cable system, the second submarine cable to ensure uninterrupted internet connectivity for Bangladesh. According to the project paper, the 25,000-kilometre cables are installed under sea from Singapore to Bangladesh at a cost of US\$ 84.7 million. The second submarine cable ensures that Bangladesh remains connected to the ICT highway if the first one gets cut off for any reason. Bangladesh is having 1500 GBPS bandwidth at its disposal. The connection to the second submarine cable is now facilitating 4G services for Bangladesh.

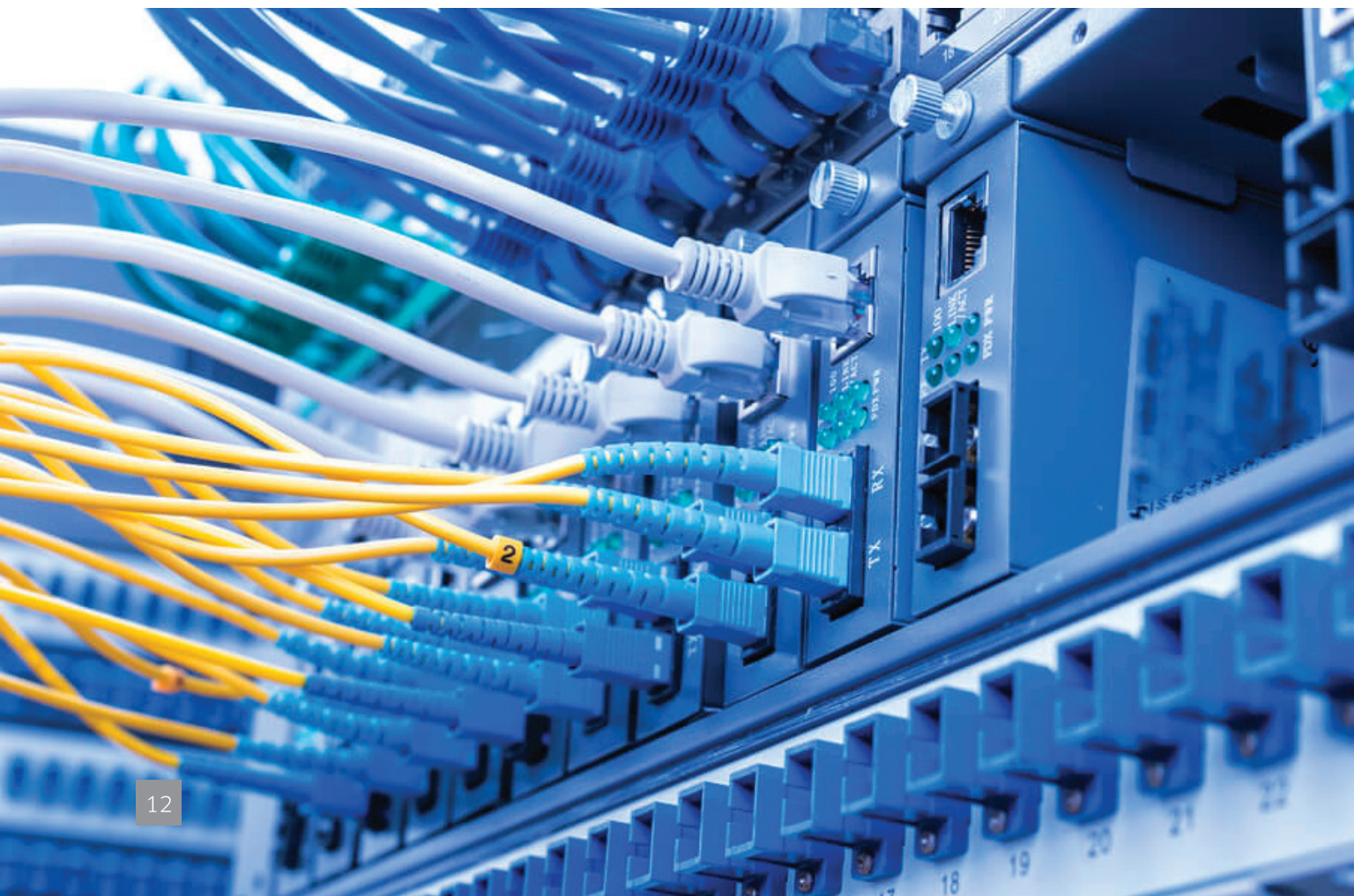
## Regional Connectivity

*Bangladesh has installed 58km-long fiber optic cable line from Panchagarh to Banglabandha.*

Bangladesh has been working to enhance the international digital connectivity. It is already connected with the SEA-ME-WE-5 submarine cable. The country is also been focusing on strengthening the regional network connectivity. Bangladesh has installed 58km-long fiber optic cable line from Panchagarh to Banglabandha. This cable is a part of the regional network connectivity with India, Bhutan and Nepal.

## Local Connectivity

The current Awami League government has laid 54,228 km of fiber optic cable lines by private Nationwide Telecommunication Transmission Network (NTTN) operators, BTCL, mobile companies, Power Grid Company of Bangladesh and Bangladesh Railway. Despite expansion of the NTTN network, most of the unions are yet to be connected to provide wire line broadband services in rural areas. Till June 2019, 1868 unions were connected with optical fiber network. The government has been increasing the supply of funds to address the issue of connecting all union parishads (UPs) with fibre optic cables. By 2020, once all the planned government financed projects are completed, all 4,600 UPs will be connected to the nationwide fibre optics network. The government is also focused on bringing the remote and hilly areas under internet coverage through 'Connecting Bangladesh' project. After the completion of the project, every union in Bangladesh will have broadband network in order to ensure e-services and employment in remote rural areas.







05

## Mobile Technology

### Mobile Coverage and Usage

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*The teledensity has exponentially increased to **98.6%** which was **34.5%** in 2008.*

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In Bangladesh, 99% of the population and 95% of the geographic area have been brought under the mobile telecommunications network. For the first time, the three districts of Chittagong Hill Tracts (Khagrachari, Bandarban and Rangamati) have also been brought under mobile network. The number of mobile phone users has also risen exponentially in the last ten years. There are now more than 160 million mobile subscribers in Bangladesh, which was only 20 million in 2006. The teledensity has exponentially increased to 98.6 percent which was 34.5% in 2008.

### 4G/LTE Technology

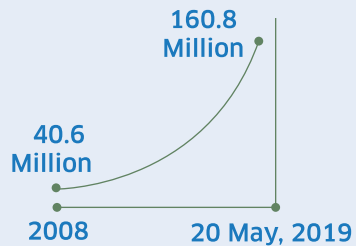
*Wireless Broadband Network Connectivity (4G, LTE) for Digital Bangladesh*

To ensure the latest mobile technology, the Government of Bangladesh has launched 4G/LTE (fourth generation/long term evolution) mobile technology. State-owned Bangladesh Telecommunications Company Ltd. (BTCL) is ensuring high-speed broadband in all metropolitan areas, districts and sub-districts under the 'Wireless Broadband Network Connectivity (4G, LTE) for Digital Bangladesh' project. Through LTE, even people from remote parts of the country and wetlands will be able to enjoy high-speed broadband internet.



## Safer Use of Mobile

### Mobile Users



Between December 2015 and June 2016, the Government of Bangladesh, in collaboration with the mobile operators, conducted one of the most comprehensive and efficient mobile registration schemes in the world. Nearly 130 million mobile SIM cards were biometrically registered during this time. The registration drive is meant to cut down mobile based crimes, and ensure safer use of mobile technology. Thereafter, all new SIM cards are being registered in same manner.

99%

of the Population Under Mobile Coverage

95%

of the Landmass Under Mobile Coverage

130

Million SIM Cards have been Biometrically Registered in 6 months

4G

Technology Launched in 2018

98.46%

Teledensity





06

## Rapid Expansion in Outsourcing

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*By 2020, the ICT  
outsourcing industry income  
is projected to be \$5 billion.*

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Owing to robust measures to equip the young workforce with soft skill trainings, the country has seen a rapid rise in the outsourcing landscape. Various international ratings put Bangladesh in the league of top ten destinations for tech outsourcing around the globe. According to Oxford Internet Institute, Bangladesh is the second largest source of online support majorly focused on software development, creative and multimedia support and sales & marketing support. Tech in Asia, a renowned technology website, ranked Bangladesh as the 7th most popular destinations for outsourcing among 186 countries. According to the latest estimates, there are over half a million registered freelancers in Bangladesh.

Given that the ICT sector has been announced as a 'thrust sector' by the Government of Bangladesh, there are many initiatives being undertaken by the government. So far, the ICT Division has trained 3,342 people under the "Freelancer to Entrepreneur" programme to create entrepreneurs in the ICT sector. The government's "Leveraging ICT for Growth, Employment and Governance (LICT)" project will provide a six-month extensive training to 10,000 youth on online outsourcing. Steps have been taken to develop standard manual and courses by a team of local and foreign experts. The training courses are designed to show how to participate in the bids offered by the online marketplaces and to deliver the desired



## Outsourcing in Bangladesh

### 2nd Largest

source of outsourcing according to Oxford Internet Institute

### 7th Most Popular

Outsourcing Destination according to Tech in Asia

### 22nd

Position in AT Kearney's GSLI 2016

### US\$ 5 Billion

Target Earnings by 2021.

### 500 BPO

Centres Planned

### 200,000

Outsourcing Jobs Annually from 2021

services. Under the 'Learning and Earning' project, training to 5,120 youth on professional outsourcing is currently taking place. The project has already trained 20,000 women and 1,920 media professionals.

The government has launched seven digital training buses for providing training to 166,000 women on IT/ITES under 'Sustainable Women Development on ICT' programme by the next three years across the country. The government is also going to provide special high-speed internet package for the freelancers. The ICT Division of the government organizes an annual international standard BPO Summit to give impetus to the sector. The government also plans to set up more than 500 business process outsourcing centers.

As per current growth trajectory, more than US\$ 100 million is projected to come from the ICT sector by 2020. Through various policy initiatives, the government aims to help the industry annually earn \$1 billion in software export and outsourcing by 2018. By 2020 the ICT outsourcing industry income is projected to be \$5 billion. National strategy has been formulated to generate 200,000 employments every year. Till November 2017, Bangladesh earned \$800 million by exporting locally made software and other ICT-related products.

The latest Global Service Location Index (GSLI) by one of the world's top management consulting organizations A.T. Kearney has marked Bangladesh as among the top outsourcing locations of the world. The Index puts Bangladesh four ranks above the previous year's ranking for IT Outsourcing, Back Office or Offshoring, Business Processing Outsourcing (BPO), and Voice Service. Bangladesh debuted on the index for the first time in 2014 and was positioned at 26th spot. Last year the country ranked at the 22nd spot.

## ICT and Skills Development

To create an IT-friendly and adaptive manpower, the Government has taken a number of steps to train the youths and create 2 million IT professionals by the end of 2021. Through ICT division's "Leveraging ICT for Growth, Employment and Governance (LICT)" project, the government has already provided 10,585 graduates and post-graduates with 'Top Up IT' training; while 20,369 youths have been provided foundation training. Through Fast Track Future Leader program, 1,688 youths received training in advanced ICT skills. 5,000 school and college goers have received the trainings. Target has been set to train an additional 10,000 youths and another 5,000 government officials and non-government IT professionals with high value IT training. Another initiative, titled 'Support to Development of Kaliakoir Hi-tech park' project has trained 6,041 youths including 1,305 girls. Under the government's strategic employment scheme, 1,286 trainees have been hired by several IT farms and business organizations. For the youths at grassroots level, the government is providing e-commerce management training to create 'Info-leaders'. 3,500 youth have already received training under the program. The government has established Sheikh Russell Digital Lab in 6,000 schools around the country. These labs provide free ICT training to the school-students. Additionally, anyone can receive training from these labs for a nominal fee. These labs are equipped with laptops, multimedia projectors and high speed internet connection. The government also established 1,500 labs in higher secondary colleges. 3,182 students have received training from these labs. 'She Power', a special training project, will train 10,500 women. To create awareness on cybercrime, online harassment and cyber security, the government has so far arranged numerous workshops in girl's school across the country.



07

## Large Scale Projects for IT Infrastructure

In alignment with the national growth strategy, construction of various large-scale infrastructure projects is thoroughly underway. To ensure world class IT infrastructure in Bangladesh, the government has planned to establish a high-tech park, an IT park and a software technology park in every district. The government has already implemented or initiated a number of large scale projects.

### Hi-Tech Parks

Bangladesh's first Hi-Tech Park is being constructed near Dhaka - on 355 acres of land in Kaliakoir, Gazipur. Once completed, this Hi-Tech park would create IT related employment for 1 million people in the next ten years. The Kaliakoir Hi-Tech park is just one of the 15 such parks in the government's pipeline for the coming years.

### Software Technology Parks (STPs)

A 12-storied 'Software Technology Park' has already started its operation in Dhaka's Karwan Bazar. Office spaces are being allocated to various IT and ITes firms. Another such park, with 232,000 sq. feet office space, is being built at Jessore's Bejpara at a cost of US\$ 36.3 million. The completed STPs will allow fantastic opportunities for investment (both domestic and foreign) in areas of computer software development, freelancing, call-centers and R&D. 5 more such STPs are being developed by the private sector.

### Tier-IV Data Center

In October, 2015 the government launched a project to set up Tier-IV level national data center, aimed at ensuring secure and safe data storage for optimum ICT usage for "Digital Bangladesh" policy. Once the \$194.6 million data center is installed at the Kaliakoir Hi-Tech Park, the hosting capacity of the shared data center of the government would be enhanced.



## IT Training and Incubation Centers

In July 2016, Bangladesh's first IT Incubation Center was launched in Dhaka. This center, which would provide mentoring and support to IT based startups, is expected to create 100,000 jobs in the coming years. Another such IT Training and Incubation Center is being set up at Natore. Another proposed project in the pipeline is the CUET IT Business Incubator Project in Chittagong University of Engineering Technology, Chittagong. The government plans to set up 7 more IT training and incubation centers across the country.

**16**  
Hi-Tech Parks

**10**  
IT Training, Incubation &  
Business Centers

**7**  
Software Technology Parks

**US\$ 194.6 Million**  
Tier-IV Data Center  
has been set-up

## Other Projects

The government is constructing an 'Electronic City' on 163 acres of land in Sylhet's Companyganj. The Electronic City is being realized on a public-private-partnership (PPP) model, and once complete, the project will create some 45,000 jobs. The government also plans to set up a 'Silicon City' in Rajshahi, and an IT Village in Mohakhali, Dhaka. An academy to provide assistance to the IT innovators and business entrepreneurs will also be established.

### Incentives for Investors in Digital Bangladesh

- 12 years of tax exemption** for developers
- 100%** profit repatriation for foreign ownership
- 10 years tax exemption** for IT/ITeS companies
- Duty free** import of capital machineries
- No VAT** on e-commerce

## Bangladesh: ICT Essentials

### ■ ICT Education

**75,000**

ICT professionals being trained by the Government

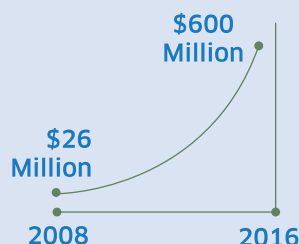
**170,000**

educational institutions will have multimedia labs

**24,122**

teachers are being trained on ICT equipment usage

### ■ ICT Sector Earnings

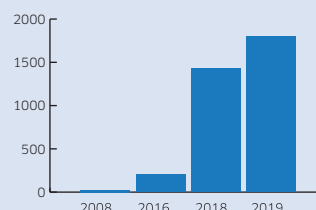


### ■ ICT Export Earnings



**US\$ 800**  
Million in  
2017

### ■ Budgetary Allocation for ICT and Education (In US\$ Million)





08

## Use of ICT in Good Governance

In order to ensure that the benefits of digitization reach all quarters of the country, a number of initiatives have been taken to digitally equip the administration and civil service. To date, 24,907 tablet PCs have been distributed among government officials.

All public offices in Dhaka have been connected with district and sub-district headquarters through a high-speed fibre optic network. Through this project, 58 ministries and 227 government directorates in Dhaka have been connected with the district headquarters and 64 upazila (sub-district) offices. The Government has built a network of internet protocol telephony for public offices to ensure better communication. A special mobile application has been built to be used by Government officials to communicate.

Among the noteworthy strides in ICT integration in governance, 800 video conferencing systems have been set up across the country; 303 digital centers have been set up in the various cities and municipal corporations; Integrated Financial Management System (IFMS) has been introduced in government offices; and the first phase of digitizing the judiciary is done. Witness

depositions are recorded electronically and all relevant information regarding cases such as daily cause lists and judgments in both subordinate and superior courts are now accessible online.

Most public services are available online. Among the available services are tender, procurement, filing tax returns, paying utility bills, viewing results, applying for admissions, recruitment and filing applications. E-Governance and e-procurement have been introduced to make public administration more transparent. E-Service centers have been set up in all districts and upazilas (sub-districts). Every district and upazila have their own web-portals. Government has digitized the process for providing pension to primary school teachers. Unlike before, now, the veteran teachers do not need to come to Dhaka to receive their earning. They can go through the process at the upazila level education offices. In 2016, the government launched the Smart Cards, replacing the previously formed National Identity Card (NID). The Smart Cards have enabled the citizens to avail public services and to pay utility bills without any harassment.

## Mobile Banking

### Revolutionary Mobile Banking



**67 million**  
Registered mobile  
banking users



**US\$ 12.9 million**  
Average daily  
transactions



**18**  
Banks providing  
mobile services



**bkash is  
revolutionizing  
banking for  
the poor**



Bill Gates

Bangladesh is one of the developing world's leading example for financial inclusion through innovative measures, such as scaled-up usage of mobile banking. On impact, a lot of people who would have otherwise been left out from the conventional systems of banking, are now active part of the mainstream financial system.

The Government of Bangladesh first made provisions for mobile banking in March of 2010. The country's central bank, Bangladesh Bank, immediately formulated a detailed guideline, followed by a revised guideline. 20 banks have been approved for providing mobile banking services; of which 18 are currently providing services in the market. Among the mobile

banking service providers, the local enterprise 'bKash' is leading the market with 80 percent share. Bill and Melinda Gates Foundation is the first investor in 'bKash'.

The government has launched its own mobile banking service, the 'Daak Taka' (D-Money). The service can be availed from local post offices, at a minimal cost of only Tk 2 to open an account. The user's account can be recharged through a postal cash card. The money can be used to purchase goods and services from everyday shops. The government has launched the service to include the million unbanked citizens of the country. Bangladesh postal service is also partnered with another mobile banking service called 'Nagad'.

Since 2010, the mobile banking sector has seen enormous growth. Till June 2019, the average daily transactions, through mobile banking in Bangladesh, amounted for more than US\$ 12.9 million. In Bangladesh, more than 67 million people are currently using mobile financial services.

According to Bangladesh Bank, mobile banking in Bangladesh saw 30% annual growth in 2016. Bangladesh Institute of Bank Management (BIBM) has forecasted that by 2020, the total number of mobile banking customers will exceed 50 million – which is 47% of the adult population of the country.



## Digital Bangladesh in Government Plans

### Bangladesh Perspective Plan (2010-2021) and Vision 2021

As per the promises in the election manifestos of 2014 and 2018, strengthening the ICT sector is a priority to achieve a “Digital Bangladesh”. The chapter 7 of the Bangladesh Perspective Plan (2010-2021) titled ‘Digital Bangladesh within 2021’ highlights the significance of increased productivity of every sector for rapid growth. The Perspective Plan 2021 focuses on research and technology to ensure rapid growth. Bangladesh can adopt new technologies that are reshaping the world by emphasizing on ‘Knowledge Economy’.

The Vision 2021 is based on the idea of Digital Bangladesh. It envisions that using ICT-based governance, enhanced public service and skilled human resource development can ensure a poverty-free middle income Bangladesh.

*The Perspective Plan 2041 has several notions to realize the Digital Bangladesh aspirations:*

1

### Knowledge Economy

The government will create an economy where the production goods and services are based on knowledge-intensive activities. In this economy, the workers and the industries will continually learn and increase their skills and expertise to foster innovation.

2

### ICT in National Development

Science and technology is not only transforming people’s lives, but also regulating global changes. It is reflected in the National Science and Technology Plan 2011.

The main objectives of the Plan are:

- More science and tech institute will be established
- Increasing share of research and development in GDP
- Increasing productivity in every sector of the economy including small and medium industries
- Inclusion of ICT in education and research
- Encouraging ICT education and innovation



## The Software Market

Government will ensure enhanced software development through proper assistance and training programs. Similar to the Indian success story, Bangladesh is set to make a mark in the global software industry.

## 7th Five Year Plan (2016-2020)

The 7th Five Year plan has several notions to realize the Digital Bangladesh aspirations:

Ensuring economic growth through e-commerce, public and private partnership (PPP) development, building technology park and creating innovation ecosystem and incubation.

Enhancing educational standard through multimedia classrooms, performance incentives for teachers, establishing educational TV channels and a virtual university.

Making a strong local government through service providing, enhancing capability, e-governance and national portal.

Facilitating agricultural development through knowledge management, research and development, rural financing, information management and GPS systems.

Ensuring the development in rural medical scenario by providing information and digital services.

Bringing transparency, good governance in service provisions.

Reducing climate vulnerability through remote sensing, forecasting and advance alerting systems.

Digitizing judicial system by developing ICT-enabled documentation and referencing system; processing of cases; and keeping records and case details.

## Future of Digital Communication

For taking national connectivity to the next level, the Government of Bangladesh has recently formulated the ambitious and very relevant National Telecommunications Policy 2016. Under this policy, the principal aims are to ensure telephone and internet for all. In order to achieve these aims, the following short-term, mid-term and long-term targets have been set:

To be  
Achieve  
by 2021

100%  
teledensity



65%  
internet  
penetration



50% people  
to have  
fixed-broad  
band



4,553  
unions to  
have optical  
fibre  
connectivity

To be  
Achieve  
by 2025

Increased  
internet  
penetration  
to 90%  
of the  
population



Reaching  
broadband  
facilities to  
60%



50%  
residences  
and  
organizations  
to have  
optical fibre  
connectivity



10

## What the World Says About Digital Bangladesh



Technological innovation important in poverty reduction and Bangladesh recognized that very early  
**World Bank President Jim Yong Kim**



Bangladesh wildly adopting technology  
**Microsoft Founder Bill Gates**



In terms of digitization, Bangladeshi people are doing extremely well  
**Secretary General of International Telecommunication Union (ITU) Houlin Zhao**



I am amazed to see how enthusiastically Bangladesh is taking opportunities to access international markets through ICT

**US Representative for California's 17th congressional district, Silicon Valley, Mike Honda**



Bangladesh 3rd in the global list of countries for rapidly digitizing. Bangladesh has the capacity to fulfill its ambitions in the ICT sector and online outsourcing

**President of World Information Technology Services Santiago Gutierrez**



Bangladesh one of 50 countries listed for growth in smartphone uptake, mobile broadband and high-speed internet access

**Huawei Global Connectivity Index 2016**



Bangladesh to be the 10th largest internet using country by 2020  
**Groupe Speciale Mobile Association (GSMA)**

11

## Awards for Digital Bangladesh

2011

Prime Minister Sheikh Hasina won the ICT Award, for using technology to better the health of women and children, by the UN Economic Commission for Africa, the Permanent Mission of Antigua and Barbuda to the United Nations, the International Telecommunications Union (ITU) and South-South News.

2015

In recognition for her contribution to promoting the use of ICT towards achieving the UN Sustainable Development Goals, Prime Minister Sheikh Hasina received the "ICT Sustainable Development Award" from the International Telecommunication Union (ITU).

2015

For his outstanding leadership and commitment towards ICT as a tool for sustainable development, Sajeeb Wazed, Honorable Prime Minister's ICT Affairs Advisor, won the "ICT for Development Award" from the World Organization of Governance & Competitiveness, Plan Trifinio, Global Fashion for Development, and the School of Business of University of New Haven, Connecticut, USA.

2018

Bangladesh government's public service innovation wing 'a2i' won the 'President Award' from the Open Group. The award was bestowed for implementing the 'EkSeba' Software Solution. The software is used in 5,275 digital centers at the union level. The software eases the government's service provisions.

Bangladesh won the World Information Technology and Services Alliance (WITSA) Global ICT Excellence Award 2014 in three categories for improving people's life using information technology. The ICT Division of the Ministry of Posts, Telecommunications and IT won the award in the public-sector category.

HPM Minister Sheikh Hasina won the United Nations 'South-South Cooperation Visionary' Award for expanding information technology.

2014

For consecutive three years, a2i programme has won the prestigious "World Summit on the Information Society (WSIS)" Award for its various IT related initiatives.

2016  
2015  
2014

For providing multidimensional digital services to the rural people, Bangladesh was awarded with "ASOCIO-2017 Digital Government Award" by the Asian-Oceanian Computing Industry Organization (ASOCIO) in Malaysia.

2017







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