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TITLE: Revisions to the indicators on household ICT access and individual ICT usage including aspects of youth and gender in Bangladesh

Country Paper Revisions to the Indicators on Household ICT Access and Individual ICT Usage Including Aspects of Youth and Gender in Bangladesh

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Introduction

The ICT sector of Bangladesh is one of the fastest growing sectors of its economy. ICT has been declared as the thrust sector by the Government. A comprehensive ICT Policy has been formulated and a National ICT Task Force has been formed. The Government organization entrusted for the development and promotion of the ICT sector is the Ministry of ICT. The present Government of Bangladesh took office with the vision of creating a digital Bangladesh by 2021.

02. ICT Policy of Bangladesh

For the development of ICT sector within the framework of overall national development, the Government has approved the National ICT Policy in July 2009. The Vision of this Policy aims at building an ICT-driven nation comprising of knowledge-based society. In view of this, a country-wide ICT-infrastructure will be developed to ensure access to information by every citizen to facilitate empowerment of people and enhance democratic values and norms for sustainable economic development by using the infrastructure for human resources development, governance, e-commerce, banking, public utility services and all sorts of on-line ICT-enabled services

03. Law on Information Technology

To create a smooth environment for e-Commerce and to safeguard the dealings over the net and to check the threat to computer communication, the government has drafted the ICT law and is in the process of enactment by the Parliament. The draft has been made based on the Model Law on E-commerce framed in 1996 by the United Nations Commission on International Trade Law (UNCITRAL).

04. Challenges and Prospects of e-Governance

The government is considering aggressively to move into e-governance for providing all needed information to citizens and for efficient and transparent services and to create an information environment and enhance the efficiency, effectiveness, dynamism in public agencies and to ensure their accountability.

05. ICT Infrastructure: Telecommunications

The telecom sector has been liberalized for private investment in early 90s, resulting in appreciable rise in mobile telephone sets in the country. As per the National Telecom Policy, 1998, the telecom sector (fixed line, mobile and the internet) is liberalized for private investment. Following the nation Telecom Policy, the Bangladesh Telecom Act 2009 was enacted. The tele

density is about 45% and internet density is about 7.10% . The following tables shows the status of telecommunication.

06. Telecommunication status

6.1 Mobile Phone Subscribers in Bangladesh

The total number of Mobile Phone subscribers has reached **90.636 million** at the end of **April 2012**

The Mobile Phone subscribers are shown below:

Operators	Active Subscribers
Grameen Phone Ltd. (GP)	37.748
Orascom Telecom Bangladesh Limited (Banglalink)	25.008
Robi Axiata Limited (Robi)	18.243
Airtel Bangladesh Limited (Airtel)	6.538
Pacific Bangladesh Telecom Limited (Citycell)	1.801
Teletalk Bangladesh Ltd. (Teletalk)	1.295
Total	90.636

Source: Bangladesh Telecommunication Regulatory Commission (BTRC)

*Subscribers in Millions


**The above subscribers' numbers are declared by the mobile operators

6.2 Internet Subscribers in Bangladesh

The total number of Internet Subscribers has reached **40182.207 thousand** at the end of **March 2012**.

The Internet subscribers are shown below:

Category	Subscribers
Mobile Internet	38640.779


ISP +  PSTN	1211.00
 WiMAX	330.428
Total	40182.207

Source: Bangladesh Telecommunication Regulatory Commission (BTRC)


**** Subscribers in Thousands**

**** The above subscribers' numbers are declared by the Internet Service Providers**

6.3 PSTN Phone Subscribers in Bangladesh

The total number of  PSTN Phone Subscribers has reached **1028.19 thousand** at the end of **May 2010**.

The PSTN Phone subscribers are shown below:

Operators	Subscribers
 BTCL	872.41
Telebarta Ltd.	56.42
Jalalabad Telecom Ltd.	10.90
Onetel Communication Ltd.	39.57
Westec Ltd.	17.00
Sheba Phone Ltd. (ISL)	11.62
S. A. Telecom System Ltd.	18.03
Banglaphone Ltd.	2.24
Total	1028.19

Source: Bangladesh Telecommunication Regulatory Commission (BTRC)

*Subscribers in Thousands

**The above subscribers' numbers are declared by the PSTN operators

07. Fiber-optic Submarine Cable

1800 KM long optic fiber network under Bangladesh Railway is being utilized by the private Cellular Phone Operator. Fiber optic links have already been established in most cities of the country.

08. ICT Incubation Centre

In order to encourage startup companies in software/ITES development and export, the government has set up an ICT Incubation Centre at a rented space of 68,000 sq. ft. in the heart of Dhaka City. At present, about 48 IT/software related companies have set up operations in this facility. The facility has been provided with 24-hour power supply and internet gateway facility from the Development of Infrastructure for IT Applications Project of BCC.

09. Hi-Tech Park

A High Tech Park with all modern infra-structural facilities is being planned at Kaliakoir near Dhaka with an area of 231.685 acres of land at a cost of 2,522.5 million Taka (43.5 million USD), which will house software and ICT-enabled service industries, electronics and PCB related equipment and products, telecommunications, hardware assembly/component/VLSI design (possibly manufacture also), optoelectronic equipment, bio-technology and related linkage industries, including a hi-tech University to provide technical support and for conducting R&D at the park facilities.

10. ICT Education/Training

Computer courses are taught in the secondary and higher secondary school level. All schools and madrasas are to be brought under computer courses.

11. National ICT Internship Programme

National ICT Task Force decided to introduce ICT Internship Award Program in the country. Under this program, graduates/ fresh graduates/post graduates in ICT subjects will be imparted training for 6-months as internees in different IT organizations/companies for acquiring practical experience and hands on training.

12. Bangladesh Bureau of Statistics

Bangladesh Bureau of Statistics (BBS) is the National statistical organization (NSO) of Bangladesh. It was established in August 1974 under the Ministry of Planning and is headed by a Director General. The broad functions of the BBS are to collect, compile, analyze and publish statistics on all sectors of the economy to meet the needs of development planning, policy analysis and decision making. Apart from this, BBS is also playing a vital role in improving the quality of data through conducting research activities, imparting training and organizing seminars, symposiums and workshops. These activities also help disseminate information collected by BBS.

13. Functions of BBS in relation to ICT

The main functions of BBS in relation to ICT are as follows:

- Direct and coordinate all aspects of planning, installation, operation and maintenance of data, server-based applications and computer systems.
- Provide support and planning for network administration.
- Design and development of database and customized software to cope with the requirements of the BBS.
- Provide training to the end-user and build-up ICT sound manpower.
- Troubleshooting of software and hardware.
- Design and development of program to capture, edit & clean, analyze and tabulation of collected data of census and surveys conducted by BBS.
- Backup and recovery of database.
- Assist in designing computer based questionnaire.
- Designing of census questionnaire for OMR and ICR/OCR.
- Implementation of optical data archive and networking system.

BBS has taken an initiative to conduct a survey named “Baseline Survey on ICT Statistics in Bangladesh”. Preliminary Concept paper is submitted for approval to the authority. Objectives of the survey are as follows:

The main objectives of the project are-

- i. To bring out the lessons learnt from different e-government initiatives that have been taken so far;
- ii. To assess the extent of private initiatives taken so far to promote ICT in Bangladesh;
- iii. To identify the prospects and common problems encountered in ICT activities in Bangladesh;
- iv. Human Resource Development through ICT training; and
- v. To assess the extent of digital divide scenario of Bangladesh.

Specific objectives: In order to achieve the overall goal two types of surveys will be conducted:

- i) Survey of ICT Enterprises; and
- ii) Survey of Households.

14. BBS and the Web site: BBS has its own dynamic web site named www.bbs.gov.bd to disseminate information.

15. Status of ICT statistics in Bangladesh

There has not been any attempt in the country to undertake a comprehensive survey to collect information on the use of ICT at the household and individual levels. Bangladesh Bureau of Statistics has a plan to conduct a survey regarding the use of ICT at the household and individual levels to identify the progress of this sector, its potential for future expansion and its contribution to the economy. Due to GOB resource constraint BBS is exploring the possibility of donor support to conduct this survey.

However, BBS has been collecting ICT related information through its regular sample surveys. Bangladesh Literacy Survey 2010 using a separate module in Labor Force Survey (LFS) and

inclusion of ICT questionnaire in HIES 2005 & 2010 are the notable efforts in collecting ICT related data. However, the findings of these surveys differs from each other due to separate sample design.

16. Bangladesh Literacy Survey 2010

Internet is an important media for gaining knowledge from different websites. Internet usage by the population 15 years and over has been presented in the Table-01. Only 1.49% used internet at the national level, and the corresponding figures were 2.00% for males and 0.97% for females. In the rural areas, only 1.13% used internet (1.52% males and 0.73% females) compared to 2.61%, 3.50% and 1.72% for both gender, males and females in the urban areas.

Table 01: Percentage distribution of population aged 15 years and over by gender, place of residence and access to internet in the last 3 months, 2010

Access to internet	National			Rural			Urban		
	Both gender	Male	Female	Both gender	Male	Female	Both gender	Male	Female
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Used internet	1.49	2.00	0.97	1.13	1.52	0.73	2.61	3.50	1.72
Don't use	98.51	98.00	99.03	98.87	98.48	99.27	97.39	96.50	98.28

Source: BBS, Bangladesh Literacy Survey 2010

17. Mode of Using Internet

As regards mode of using internet 63.80% used internet at the national level through mobile phones 33.22% used computers, and 2.99% used both media.

There exists no significant variation in the use of internet by different modes among males and females. Among males, 63.90% used cell phone, 33.30% used computer and 2.80% used both technology for using internet compared to the corresponding figures of 63.57%, 33.05% and 3.38% among females.

There exist significant urban-rural variations in the mode of use of internet in the rural and urban area. More than 80% rural people used internet through mobile phone compared to less than 50% for the urban people.

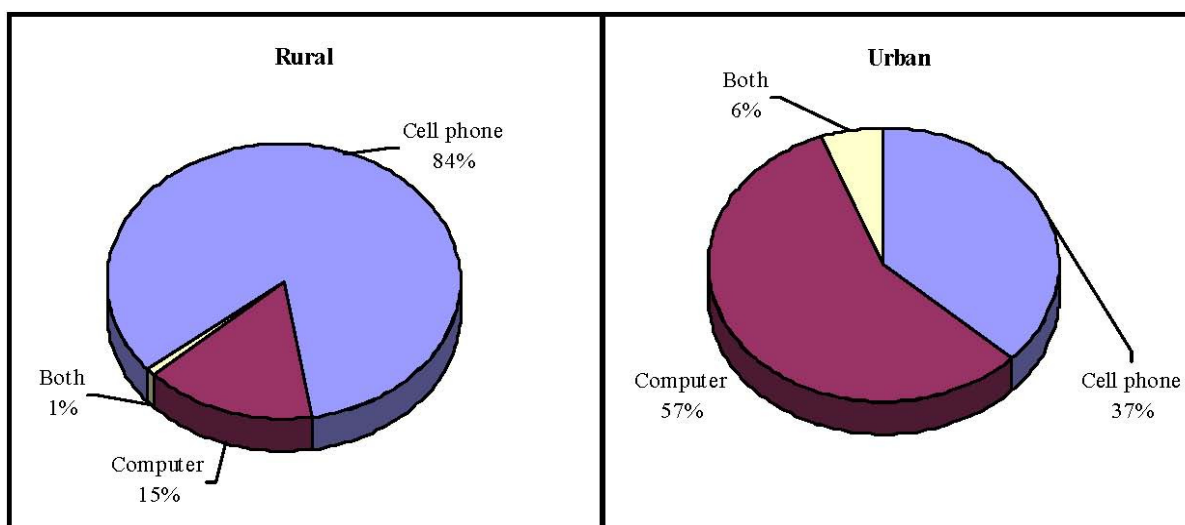
Table 02: Percentage distribution of population aged 15 years and over by gender, place of residence and mode of internet use in the last three months, 2010

Mode of internet use	National			Rural			Urban		
	Both gender	Male	Female	Both gender	Male	Female	Both gender	Male	Female
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Cell phone	63.83	63.90	63.68	83.72	83.05	85.16	36.99	37.75	35.42
Computer	33.19	33.30	32.95	15.41	16.16	13.80	57.19	56.72	58.14
Both	2.98	2.80	3.37	0.87	0.80	1.04	5.83	5.53	6.44

Source: BBS, Bangladesh Literacy Survey 2010

Percentage distribution of population aged 15 years and over by place of residence and mode of internet use in last three months, 2010



18. Use of Internet by Level of Education

Use of internet by level of education has been presented in Table-03. There exists positive correlation between use of internet and level of education. The higher the level of education, the higher is the use of internet facility. While only 0.47% having education level VI-VIII used internet, 18.21% among those having Master's degree and 26.39% having Engineering/Medical degree used internet. There exists gender variation in the use of internet where male used it at higher proportion than females in all educational levels.

Table 03: Percentage distribution of population aged 5 years and over by gender, highest grade passed and access to internet in the last three months, 2010

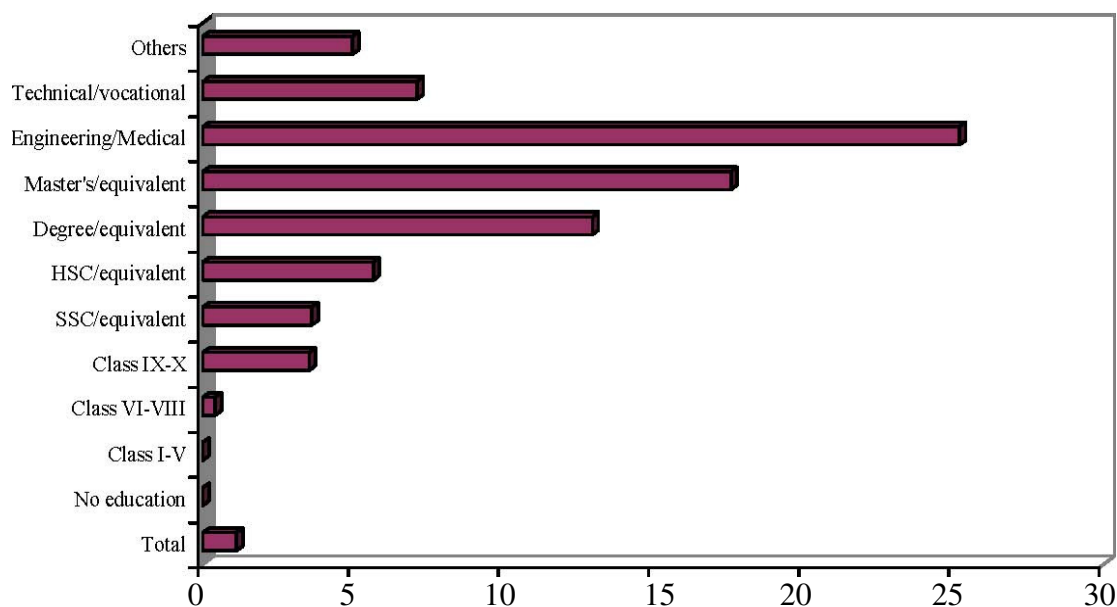
Percentage distribution of population aged 5 years and over by gender, grade passed and access to internet in the last three months, 2010

Highest grade passed	Male			Female			Total		
	Access to internet		Total	Access to internet		Total	Access to internet		Total
	Used internet	Don't use		Used internet	Don't use		Used internet	Don't use	
Total	1.49	98.51	100	0.74	99.26	100	1.12	98.88	100
No education	0.00	100.00	100	0.00	100.00	100	0.00	100.00	100

Class I-V	0.00	100.00	100	0.00	100.00	100	0.00	100.00	100
Class VI-VU.I	0.54	99.46	100	0.43	99.57	100	0.48	99.52	100
Class IX-X	4.25	95.75	100	2.95	97.05	100	3.60	96.40	100
SSC/equivalent	4.27	95.73	100	2.83	97.17	100	3.65	96.35	100
HSC. equivalent	6.74	93.26	100	4.62	95.38	100	5.95	94.05	100
Degree 'equivalent	13.47	86.53	100	12.59	87.41	100	13.21	86.79	1 00
Master's/equivalent	18.19	81.81	100	16.57	83.43	100	17.76	82.24	100
Engineering, "Medical	27.20	72.80	100	27.96	72.04	100	27.35	72.65	100
Technical/vocational*	8.05	91.95	100	7.84	94.16	100	8.00	92.00	100
Others	6.36	93.64	100	0.00	100.00	100	4.28	95.72	100

Notes: Technical/Vocational=Computer training. Motor dn\ ma Motor mechanic. Welding, Electrical, etc.
Source: BBS, Bangladesh Literacy Survey 2010

19. Percentage distribution of population aged 5 years and over by use of internet services and level of education, 2010



20. Use of Electronic Media by the Population for Education Purpose

Use of electronic media such as radio and television for educational purposes has been presented in the Table-04 . Among the males, 21.94% had listened to educational programs of the radio several times in last three months, 6.76% several times a month, 3.06% several times a week, and 2.82% daily. Educational programs of television was viewed by more people than radio, where 22.95% viewed it several times in last three months, 14.24% several times a month, 10.91% several times a week, and 13.87% viewed it daily. Thus, although still low, watching television is more frequent than listening to radio programs on education. The use of radio and television by females is slightly lower than that of males where 20.46% listened to radio and 22.95% viewed television several times in last three months.

It is interesting to note that listening to educational programs of radio or viewing of educational programs on television was higher in rural than urban areas, with few exceptions. In the case of radio, 22.44% rural males listened to it several times in last three months compared to 20.28% for urban areas. For viewing the television several times in last three months, the percentage for rural males was 23.18% as against 22.20% for urban areas.

In the case of females, 20.65% listened to radio and 21.68% viewed television several times during the last three months for the rural areas compared to 19.83% for radio and 22.64% for television in the urban areas.

21. Table 04: Percentage distribution of population aged 5 years and over by gender, place of residence, habit of watching educational programs in the electronic media in the last three months, 2010

Frequency of using different electronic media	National		Rural		Urban	
	Radio	Television	Radio	Television	Radio	Television
Male	100.00	100.00	100.00	100.00	100.00	100.00
Never listen/observe	50.79	27.69	51.74	30.19	47.64	19.40
Several times in last 3 months	21.94	22.95	22.44	23.18	20.28	22.20
Several times in a month	6.76	14.24	6.72	13.48	6.86	16.77
Several times in a week	3.06	10.91	3.01	11.24	3.20	9.83
Daily	2.82	13.87	2.51	11.56	3.87	21.51

Source: BBS, Bangladesh Literacy Survey 2010

Table 05: Percentage distribution of population aged 5 years and over by gender, place of residence, habit of watching educational programs in the electronic media in the last three months, 2010

Frequency of using different electronic media	National		Rural		Urban	
	Radio	Television	Radio	Television	Radio	Television
No scope	13.60	9.43	12.59	9.48	16.96	9.29
Not Reported	1.04	0.91	1.00	0.88	1.19	1.00
Female	100.00	100.00	100.00	100.00	100.00	100.00
Never listen/observe	53.37	32.05	54.75	35.43	48.89	21.06
Several times in last 3 months	20.46	21.90	20.65	21.68	19.83	22.64
Several times in a month	5.73	12.08	5.62	11.18	6.11	15.03
Several times in a week	2.67	9.09	2.58	9.23	2.98	8.65
Daily	2.45	13.01	2.03	10.16	3.82	22.27

No scope	14.17	10.70	13.23	11.13	17.22	9.31
Not Reported	1.15	1.16	1.15	1.20	1.15	1.04

Source: BBS, Bangladesh Literacy Survey 2010

Table 06: Distribution of population aged 5 years and over by gender, place of residence and habit of watching educational program in the electronic media in the last three months, 2010

Frequency of using different electronic media	National		Rural		Urban	
	Radio	Television	Radio	Television	Radio	Television
Thousand Number						
Male	66127	66127	50808	50808	15319	15319
Never listen/observe	33585	1831	26288	15339	7298	2972
Several times	14507	15177	11399	11776	3107	3401
Several times in a month	4467	9417	3416	6848	1051	2569
Several times in a week	2020	7214	1530	5709	490	1505
Daily	1866	9171	1273	5875	592	3295
No scope	8994	6238	6395	4815	2599	1423
Not Reported	688	599	506	446	182	153
Female	64448	64448	49277	49277	15170	15170
Never listen/observe	34397	20655	26980	17460	7417	3195
Several times	13185	14116	10176	10681	3009	3435
Several times in a month	3694	7786	2767	5507	927	2279
Several times in a week	1723	5858	1270	4546	453	1312
Daily	1577	8387	998	5009	579	3379
No scope	9133	6898	6520	5486	2612	1413
Not Reported	739	746	565	589	174	157
Percent						
Male	100	100	100	100	100	100
Never listen/observe	50.79	27.69	51.74	30.19	47.64	19.40
Several times	21.94	22.95	22.44	23.18	20.28	22.20
Several times in a month	6.76	14.24	6.72	13.48	6.86	16.77
Several times in a week	3.06	10.91	3.01	11.24	3.20	9.83
Daily	2.82	13.87	2.51	11.56	3.87	21.51
No scope	13.60	9.43	12.59	9.48	16.96	9.29
Not Reported	1.04	0.91	1.00	0.88	1.19	1.00
Female	100	100	100	100	100	100
Never listen/observe	53.37	32.05	54.75	35.43	48.89	21.06
Several times	20.46	21.90	20.65	21.68	19.83	22.64
Several times in a month	5.73	12.08	5.62	11.18	6.11	15.03
Several times in a week	2.67	9.09	2.58	9.23	2.98	8.65
Daily	2.45	13.01	2.03	10.16	3.82	22.27
No scope	• 14.17	10.70	13.23	11.13	17.22	9.31

Not Reported	1.15	1.16	1.15	1.20	1.15	1.04
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Source: BBS, Bangladesh Literacy Survey 2010

Table 07: Distribution of population aged 5 years and over by gender, place of residence and access to internet during the last 3 month, 2010

Access to internet	National			Rural			Urban		
	Both gender	Male	Female	Both gender	Male	Female	Both gender	Male	Female
Thousand Number									
Total	130574	66127	64448	100085	50808	49277	30490	15319	15170
Used internet	1463	986	477	848	572	276	614	414	201
Don't use	129112	65141	63971	99236	50235	49001	29876	14906	14970
Percent									
Total	100	100	100	100	100	100	100	100	100
Used internet	1.12	1.49	0.74	0.85	1.13	0.56	2.01	2.70	1.32
Don't use	98.88	98.51	99.26	99.15	98.87	99.44	97.99	97.30	98.68

Source: BBS, Bangladesh Literacy Survey 2010

Table 08: Distribution of population aged 15 years and over by gender, place of residence and access to internet during the last 3 months, 2010

Access to internet	National			Rural			Urban		
	Both gender	Male	Female	Both gender	Male	Female	Both gender	Male	Female
Thousand Number									
Total	94526	47534	46992	71611	3604	35563	22915	11486	11429
Used internet	1407	952	455	808	549	259	599	402	197
Don't use	93120	46583	46537	70803	3549	35304	22316	11084	11233
Percent									
Total	100	100	100	100	100	100	100	100	100
Used internet	1.49	2.00	0.97	1.13	1.52	0.73	2.61	3.50	1.72
Don't use	98.51	98.00	99.03	98.87	98.48	99.27	97.39	96.50	98.28

Source: BBS, Bangladesh Literacy Survey 2010

Table 09: Distribution of population aged 15 years and over by gender, place of residence and mode of internet use, 2010

Mode of internet use	National			Rural			Urban		
	Both gender	Male	Female	Both gender	Male	Female	Both gender	Male	Female
Thousand Number									
Total	1407	952	455	808	549	259	599	402	197
Cell phone	898	608	290	677	456	220	221	152	69
Computer	467.	317	150	124	89	36	342	228	114
Both	42	27	15	7	4	3	35	22	13
Percent									
Total	100	100	100	100	100	100	100	100	100
Cell phone	63.83	63.90	63.68	83.72	83.05	85.16	36.99	37.75	35.42
Computer	33.19	33.30	32.95	15.41	16.16	13.80	57.19	56.72	58.14

Both	2.98	2.80	3.37	0.87	0.80	1.04	5.83	5.53	6.44
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Source: BBS, Bangladesh Literacy Survey 2010

Table 10: Distribution of population aged 5 years and over by gender, highest grade passed and mode of internet use, 2010

Highest grade passed	Male				Female				Both gender			
	Mode of internet use			Total	Mode of internet use			Total	Mode of internet use			Total
	Cell phone	Comput	Both		Cell	Comp	Both		Cell	Compu	Both	
Thousand Number												
Total	635	322	30	986	308	152	16	475	942	474	46	1461
Class VI-VIII	32	8	1	41	23	6	2	31	55	14	3	72
Class IX-X	200	24	4	228	145	13	1	159	346	37	5	387
SSC/equivalent	134	26	6	165	67	15	1	82	200	41	7	247
HSC/equivalent	108	46	5	159	40	22	4	66	148	68	9	225
Degree/equivalent	91	96	6	193	20	48	6	74	112	144	12	267
Master's/equivalent	61	89	5	155	11	38	2	50	72	126	7	205
Engineering/Medical	3	30	2	34	2	8	1	11	5	37	3	45
Technical/vocational*	4	4	1	9	0	2	0	2	4	6	1	11
Others	1	1	0	1	0	0	0	0	1	1	0	1
Percent												
Total	2.76	1.40	0.13	4.28	1.56	0.77	0.08	2.41	2.21	1.11	0.11	3.42
Class VI-VIII	0.37	0.09	0.01	0.47	0.26	0.07	0.02	0.35	0.32	0.08	0.02	0.41
Class IX-X	3.65	0.43	0.08	4.16	2.66	0.23	0.02	2.91	3.15	0.33	0.05	3.54
SSC/equivalent	3.43	0.67	0.15	4.25	2.27	0.50	0.03	2.80	2.93	0.60	0.10	3.63
HSC/equivalent	4.36	1.85	0.20	6.41	2.71	1.52	0.25	4.47	3.74	1.72	0.22	5.68
Degree/equivalent	6.29	6.58	0.40	13.27	3.27	7.88	0.95	12.10	5.40	6.97	0.56	12.93
Master's/equivalent	7.20	10.41	0.60	18.21	3.34	11.89	0.63	15.86	6.16	10.81	0.61	17.58
Engineering/Medical	2.13	22.80	1.46	26.39	4.06	15.98	1.98	22.03	2.66	20.92	1.60	25.19
Technical/vocational *	3.49	3.21	0.80	7.50	0.00	5.80	0.00	5.80	2.74	3.76	0.63	7.13
Others	3.30	4.29	0.00	7.59	0.00	0.00	0.00	0.00	2.17	2.82	0.00	4.98

Notes: Technical/Vocational=Computer training, Motor Driving/Motor Mechanics, Welding, electrical, etc.
Source: BBS, Bangladesh Literacy Survey 2010

Table 11: Distribution of population aged 5 years and over by gender, highest grade passed and access to internet, 2010

Highest grade passed	Male			Female			Both gender		
	Access to internet		Total	Access to internet		Total	Access to internet		Total
	Used internet	Don't use		Used internet	Don't use		Used internet	Don't use	
Thousand Number									
Total	986	65141	66127	477	63971	64448	1463	129112	130575

No education	0	23723	23723	0	26177	26177	0	49901	49901
Class I-V	0	19709	19709	0	18885	18885	0	38594	38594
Class VI-VIII	47	8523	8570	38	8745	8783	84	17269	17353
Class IX-X	225	5046	5271	154	5080	5234	378	10127	10505
SSC/equivalent	166	3711	3877	83	2841	2924	248	6553	6801
HSC/equivalent	170	2351	2521	70	1436	1496	240	3787	4027
Degree/equivalent	193	1239	1432	74	516	590	267	1755	2022
Master's/equivalent	149	669	818	48	241	289	196	910	1106
Engineering/Medical	31	83	114	8	22	30	39	105	144
Technical/vocational*	7	75	82	2	23	25	8	98	106
Others	1	10	11	0	5	5	1	14	15
Percent									
Total	1.49	98.51	100.00	0.74	99.26	100.00	1.12	98.88	100.00
No education	0.00	100.00	100.00	0.00	100.00	100.00	0.00	100.00	100.00
Class I-V	0.00	100.00	100.00	0.00	100.00	100.00	0.00	100.00	100.00
Class VI-VIII	0.54	99.46	100.00	0.43	99.57	100.00	0.48	99.52	100.00
Class IX-X	4.25	95.75	100.00	2.95	97.05	100.00	3.60	96.40	100.00
SSC/equivalent	4.27	95.73	100.00	2.83	97.17	100.00	3.65	96.35	100.00
HSC/equivalent	6.74	93.26	100.00	4.62	95.38	100.00	5.95	94.05	100.00
Degree/equivalent	13.47	86.53	100.00	12.59	87.41	100.00	13.21	86.79	100.00
Master's/equivalent	18.19	81.81	100.00	16.57	83.43	100.00	17.76	82.24	100.00
Engineering/Medical	27.20	72.80	100.00	27.96	72.04	100.00	27.35	72.65	100.00
Technical/vocational*	8.05	91.95	100.00	7.84	92.16	100.00	8.00	92.00	100.00
Others	6.36	93.64	100.00	0.00	100.00	100.00	4.28	95.72	100.00

Notes: Technical/Vocational=Computer training, Motor Driving/Motor Mechanics, Welding, electrical, etc.
Source: BBS, Bangladesh Literacy Survey 2010

22. Household Income and Expenditure Survey 2005 and 2010

Bangladesh Bureau of Statistics has conducted another survey Household Income and Expenditure Survey (HIES) 2005 & 2010. The questions focused on the use of fixed telephone, mobile phone, computer and email facilities. As is known HIES is a large survey with a long questionnaire. The inclusion of only four questions marks the beginning of a full effort in the future to conduct a survey especially on ICT.

As mentioned earlier, “Household Income and Expenditure Survey 2010” sought information on the use of ICT (use of computer, email, internet, telephone, mobile phone etc.) at the household and individual levels. The enumerators were provided with Laptop computers to collect and process field level data. The preliminary result of the survey has been published. However preliminary results show the following:

Table 12: Percentage of households having ICT facilities

Type of facilities	National		Rural		Urban	
	2010	2005	2010	2005	2010	2005
Telephone	2.07	2.87	0.70	0.33	5.79	10.36

Mobile Phone	63.74	11.29	56.77	6.05	82.74	26.73
Computer	3.01	1.36	0.97	0.17	8.58	4.88
email	1.39	0.20	0.39	-	4.10	0.81

Source: BBS, Household Income and Expenditure Survey 2005 & 2010

The table shows increasing tendency of use of computer facilities in Bangladesh especially in rural areas. The most notable information from the survey is that though mobile phone has been introduced in the country in early nineties, there has been substantial growth of mobile phone use. The use of Internet has considerably increased both in urban and rural areas as focus by the recent survey. Understandably, the use of the ICT facilities is much higher in urban areas compared to rural areas.

There has been rapid growth of use of Mobile phones between 2005 and 2010. While only 11.29% of households used mobile phones in 2005, more than 63% of households were found to use them in 2010. Graph-1: Percentage of households having ICT facilities.

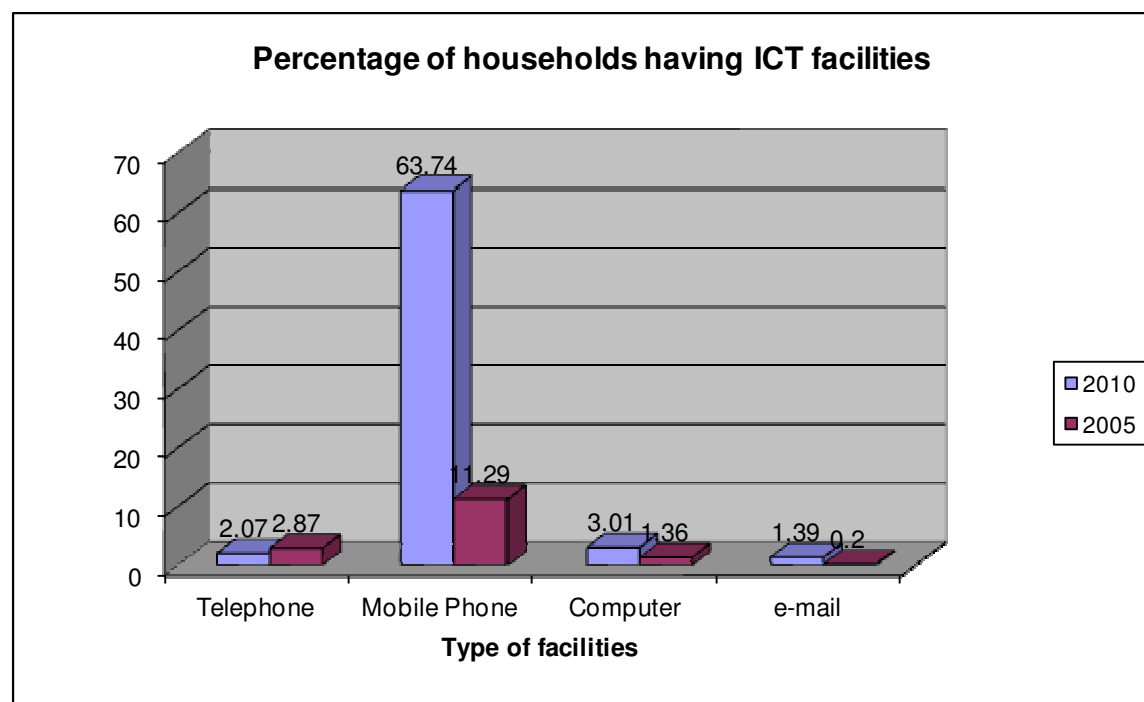


Table 13: Mobile phone used by households

Locality	2000	2005	2010
National	1.50	11.29	63.74
Rural	0.30	6.05	56.77
Urban	6.50	26.73	82.74

Source: BBS, HIES 2000 and HIES 2005 & 2010

It may be mentioned here that the government has been trying to popularize ICT in government offices to improve productivity and promote e-governance. The progress in this front has been captured in a recent survey which is discussed below. Graph: Percentage of Mobile Phone used by households

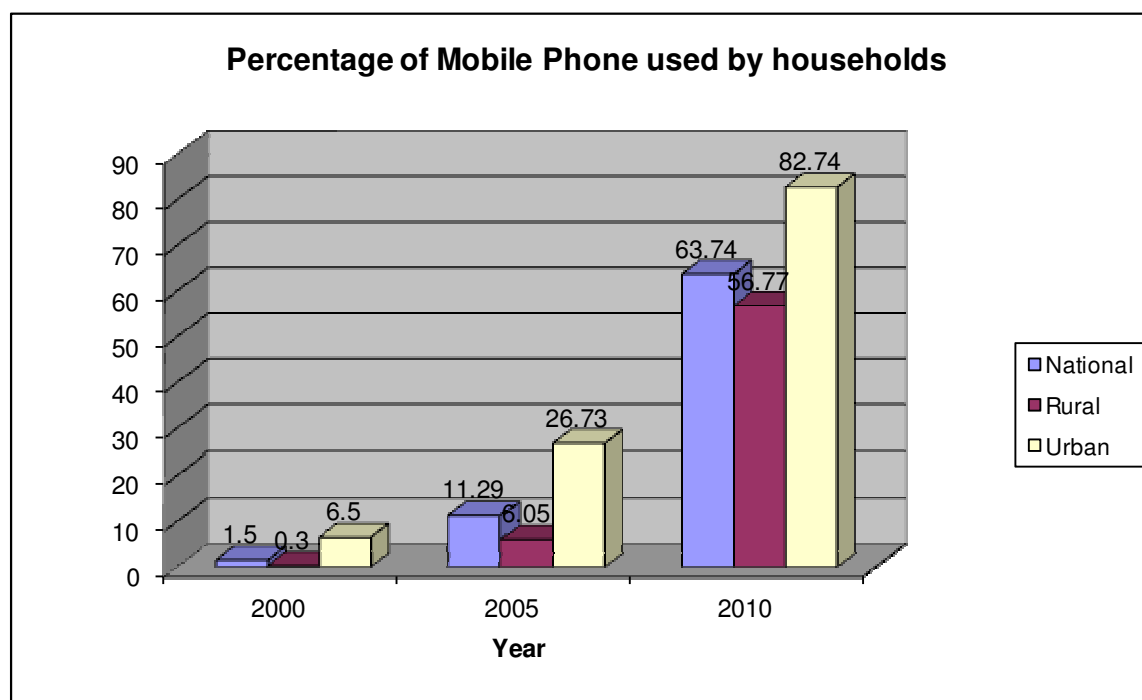


Table 14: Percentage Distribution of household by ownership of Computer and e-mail/Internet facility by locality and monthly income group.

Monthly Household Income(Tk.)	Year 2005		Year 2010	
	%Computer	%E-mail/Internet	%Computer (p)	%E-mail/Internet(P)
National				
<1500	0.00	0.00	0.14	0.00
1500-1999	0.24	0.00	0.00	0.00
2000-2499	0.00	0.00	0.40	0.55
2500-2999	0.51	1.69	0.51	0.00
3000-3999	1.13	1.69	1.58	0.83
4000-4999	0.26	0.00	0.74	0.90
5000-5999	3.09	0.00	0.46	0.50
6000-6999	4.13	0.00	3.25	0.93
7000-7999	2.74	0.00	1.75	0.65
8000-8999	2.64	0.00	3.01	3.08
9000-9999	2.38	3.89	1.66	1.24
10000-12499	9.29	10.18	5.35	5.54
12500-14999	6.48	0.00	3.40	5.87
15000-17499	7.99	0.00	4.78	2.37

17500-19999	7.86	0.00	5.82	4.77
20000+	51.27	82.55	67.16	72.78
Monthly Household Income(Tk.)	Year 2005		Year 2010	
	%Computer	%E-mail/Internet	%Computer(p)	%E-mail/Internet(p)
Urban				
<1500	0.00	0.00	0.18	0.00
1500-1999	0.27	0.00	0.00	0.00
2000-2499	0.00	0.00	0.12	0.00
2500-2999	0.56	1.69	0.17	0.00
3000-3999	0.28	1.69	0.18	0.00
4000-4999	0.28	0.00	0.15	0.32
5000-5999	2.54	0.00	0.60	0.63
6000-6999	2.81	0.00	1.64	1.17
7000-7999	2.06	0.00	1.07	0.00
8000-8999	2.91	0.00	2.16	3.06
9000-9999	2.63	3.89	0.98	0.75
10000-12499	10.25	10.18	3.08	2.05
12500-14999	6.18	0.00	3.09	2.19
15000-17499	8.81	0.00	4.92	2.98
17500-19999	8.67	0.00	6.42	5.19
20000+	51.76	82.55	75.25	81.67
Rural				
<1500	0.00	0.00	0.00	0.00
1500-1999	0.00	0.00	0.00	0.00
2000-2499	0.00	0.00	1.34	2.69
2500-2999	0.00	0.00	1.62	0.00
3000-3999	9.35	0.00	6.13	4.06
4000-4999	0.00	0.00	2.67	3.16
5000-5999	8.47	0.00	0.00	0.00
6000-6999	16.94	0.00	8.50	0.00
7000-7999	9.35	0.00	3.95	3.16
8000-8999	0.00	0.00	5.77	3.14
9000-9999	0.00	0.00	3.85	3.16
10000-12499	0.00	0.00	12.76	19.12
12500-14999	9.35	0.00	4.41	20.19
15000-17499	0.00	0.00	4.32	0.00
17500-19999	0.00	0.00	3.87	3.16
20000+	46.55	0.00	40.8	38.16

Table 06 shows percentage use of computer and Internet/e-mail facilities by locality and monthly income group. In the more than 20000.00TK monthly income group the use of computer 51.27% and use of internet/e-mail is 82.5% in the year 2005. Whereas the percentage use regarding computer in the year 2010 is 67.17% and use of internet/e-mail is 72.78% in the year 2010. In this observation, it is shown that there has been an increment of 15.89% in the year 2010

compare to the year 2005. In case of the use regarding and use of internet/e-mail facilities there has been observed decreasing tendency of 9.77% in the year 2010 compare to the year 2005.

Table 15: Percentage Distribution of household by ownership of Computer and e-mail/Internet facility by locality and level of education of household head.

Monthly Household Income(Tk.)	Year 2005		Year 2010	
	%Computer	%E-mail/Internet	%Computer(p)	%E-mail/Internet(p)
National				
Class I-V	13.82	15.25	4.49	4.01
Class VI-IX	5.78	0.00	21.69	19.97
SSC/HSC or equiv.	19.15	1.75	28.11	25.64
Graduate or equiv.	24.24	35.14	21.96	17.8
Post Graduate or eqi.	25.74	40.40	18.06	24.14
Doctor	1.93	0.00	1.63	2.74
Engineer	9.33	7.46	2.67	4.20
Others	0.00	0.00	1.39	1.51
Urban				
Class I-V	11.49	15.25	2.56	0.98
Class VI-IX	5.50	0.00	11.18	11.73
SSC/HSC or equiv.	17.26	1.75	29.85	24.80
Graduate or equiv.	24.95	35.14	26.52	21.55
Post Graduate or equiv.	28.39	40.40	22.47	30.34
Doctor	2.13	0.00	2.12	3.44
Engineer	10.29	7.46	3.49	5.27
Others	0.00	0.00	1.81	1.90
Rural				
Class I-V	36.51	0.00	10.80	15.82
Class VI-IX	8.47	0.00	55.95	52.08
SSC/HSC or equiv.	37.64	0.00	22.46	28.94
Graduate or equiv.	17.38	0.00	7.11	3.16
Post Graduate or equiv.	0.00	0.00	3.67	0.00
Doctor	0.00	0.00	0.00	0.00
Engineer	0.00	0.00	0.00	0.00
Others	0.00	0.00	0.00	0.00

23. ICT and Women in Bangladesh

In the past women were only considered for household work and were left outside the mainstream of development. In today's Bangladesh, The scenario has not changed much. But with the advent of ICT, this conservative outlook about women is diminishing gradually. As a result we find more women are employed in various knowledge based industries such as computer-aided designing, graphic designing, composing etc. Village Phones have increased

income and savings accumulation among phone owners, mostly women. The women phone operators are generally poorer than the average villager is. However, the income that they earn is significant, generally accounting for 30-40% of household income and averaging \$300 per year in a country where average per capita income is \$286. The operators are likely to be married (90%), and half of them have no formal education. Another quarter has primary education and the remaining quarter, some secondary education. 36 % identify themselves as housewives, and only 6% have some kind of formal employment (in government or business). The women operate their phone businesses while doing household chores or operating another business. The phones are used primarily for calls relating to financial matters, particularly relating to remittances, which are a significant source of village income. Strikingly among poor villagers, 38% of phone users had one or more family member living abroad. Women phone operators have achieved economic and social empowerment within their households and communities.

24. Concluding Observations

The use of ICT has experienced a modest growth in Bangladesh with rapid use of mobile phones. BBS, the apex statistical organization is using Hi-Tech sophisticated machineries in data processing. There has also been substantial progress in the use of ICT in government offices. However, lack of comprehensive survey on the use of ICT is preventing us from giving a full picture of ICT statistics in the country. It has been observed that this sector has inadequate infrastructure and insufficient trained manpower. Besides, the quality of training is not satisfactory up to the mark. Despite these shortcomings, an enlightened future of this sector is anticipated. The universities – both public and private, are producing increasing number of graduates in computer related fields who can contribute to the development of this sector.

(Note : Regarding aspect of youth, it may be mentioned that BBS the NSO has no data readily available for the Indicators on household ICT access and individual ICT usage including aspects of youth. Although BBS has collected those information recently which are still under data processing. However, I am trying to collect this youth aspects data from secondary or administrative sources and shall provide later during the meeting.)