
PUBLIC ACCESS TO INFORMATION & ICTs
PHASE II REPORT

Bangladesh

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1 Extended Executive Summary

Many people will only read this section so make it very comprehensive, about 8 pgs long.

It should read like a continuous and stand-alone text, with full paragraphs that summarize the following points:

1.1 Research Project Overview

This research focuses on the public access to information and communication landscapes in 24 countries, with specific focus on public libraries, to understand the information needs of underserved communities, public access to information and communication venues, and the role of ICT.

Through field research in 24 countries conducted by local research partners, and cross-country comparative analyses based on common research design elements (see list of countries and research design overview in Appendix), the project aims to contribute to the knowledge in the field of information and ICT for development. Of particular interest and value are: the comparative look at key venues (libraries and other), and the mix of depth of in-country knowledge with breadth of global comparison to elicit success factors and scenarios to understand how diverse populations can and do access and use ICT to improve their lives. All outputs of this research will be broadly disseminated to interested stakeholders and placed in the public domain.

1.2 Introduction

Public Access Information Venue came into lexicon in the backdrop of changing information and knowledge landscape followed by emergence of Internet in early 1990s. People started to behave differently in terms of accessing information knowledge. Communication pattern of citizens across the globe also started to evolve. For accessing knowledge and information, along with libraries, people started to access Internet. As it is not possible to buy all books and journals for an individual and the obvious choice is to visit library, similarly not everybody can afford a PC and Internet connection, thus cyber café has become people's obvious choice for accessing knowledge and information. The difficulties in accessing computer and Internet were more severe for the citizens living in developing countries. Furthermore, these difficulties were multiplied for people living in non-urban areas. Thus, new choice emerged for them in form of "Telecenter". As a whole the information and knowledge access landscape changed dramatically during last one and half decade. This study is an attempt to investigate all types of public access venues, including traditional libraries.

1.3 Country Overview

Bangladesh is an independent country emerged on the world map through a liberation war against Pakistan in 1971. She is small member of South Asian nations surrounded by India and Myanmar. The size of the country is 147,570 square kilometers. Bangladesh is mostly flat, alluvial and plain. The highest point of the country has been found at Keokradong, which is 1,230 meter high. Bangladesh is a parliamentary democracy. The population of the country is 145 million.

The economy of the country is growing on average at 5% rate since 2001. The GDP of the country in 2007-08 was USD 79 billion. Per capita GNP was USD 499 in 2007-08. During

last three years, the growth of GDP was around 6%. It is perceived that the growth potential of the country is not fully unleashed primarily due to political instability. Information and Communication Technology (ICT) is being considered as the thrust sector. The development potential of the ICTs is being nurtured by the stakeholders in the country and many innovative works are going on for linking ICTs and development. The public access information scenario in Bangladesh is also evolving like anywhere in the world. There are some distinct trends in this regard. Bangladesh has been included by the global research team at University of Washington for investigating the nature of public access information landscape, particularly from the angle of ICT penetration.

1.4 Research Rationale, Sample & Methods

The research is particularly important from the perspective that scarce resources are invested in creation of various kinds of public access venues. There is no question about the development and growth implications of ICTs. However, the changing landscape of information and knowledge access is not examined yet thoroughly across the globe. The legitimate question is whether the resources are spent appropriately. It is also important to identify any gap and avenues for investment for expanding the network of public access venues. The current exercise is a benchmarking one and possesses immense value to the researchers, development practitioners, government and international development partners. This study would lay down the way for further in-depth investigation in terms of assessing impact of public access to ICT for information and knowledge.

There are three major streams in public access venue landscape of Bangladesh: libraries, telecenters and cyber cafes. The library system is rather complex with number of sub-groups: public library, academic library and specialized library. Out of 20619 libraries only 1119 libraries have been identified as public. A public library is place for primarily accessing information and knowledge for all citizens. The word “public” is not used in the sense of ‘government financed’.

In this study four types of public access information venues have been selected: public library, community library, telecenter and cyber café. The reason behind singling out community library from the public library category is that community library has some distinct characteristics, which deserve separate investigation.

For the study, only public venues were considered. In sampling design for these venues, primary consideration was geography of the venues. The venues have been identified by urban and non-urban venues. The second important criterion was presence of ICT facilities, thus the venues were further classified as with ICTs and without ICTs. The other considerations were classification by funding sources and geographical dispersion of the venues. Following these criteria, total 29 venues were identified for the study, of which 19 venues are situated in urban areas and 10 venues in non-urban areas..

It is true that public access to information and ICTs are not limited to only these three brick and mortar categories. The technological evolution and innovation prompted a number of initiatives in Bangladesh, which also offer access to information. These venues were

studied but not included into the sample. The initiatives offer mobile venues (on vehicle and boat), offers alternative ICTs like mobile phone.

A number of methods were applied for conducting the study. Initially existing literature as studied. Total 31 items were identified which are related to the topic. More than 40 websites were visited as well. Subsequently, a list of key persons was prepared and consent was taken for their in-depth interview. Total six persons were interviewed. Site visit was part of methodology for the study. All 29 sites were visited to have first hand ideas about the venues.

For each of the sites interview was conducted with operators of those venues using a semi-structured questionnaire. For 29 venues total 301 users were identified for survey. The survey was conducted using a structured questionnaire.

The major limitation of the study is limited number of sample. Due to budget limitation it was not possible to conduct survey with large sample. However, the limitation was attempted to overcome by interviews with key informants of respective categories of the venues.

1.5 Information Needs of Underserved Communities

Information needs assessments were done based on the three previously done assessments and through user survey. Information needs have been so far identified for a number of areas: agriculture, health, education, employment, non-farm income opportunities, disaster preparedness, entertainment, government's programs for various vulnerable groups, news etc. In this study, information needs, information seeking pattern have been presented for major information groups, which are most frequently sought after by the community people.

The users have demand for information on various issues related to various components of the whole production chain of agriculture, production, nurturing, harvesting, processing, preservation and marketing. Farmers are found not less concern with man made debacles along with natural disaster. For example, they are concerned with availability of fertilizers from a particular government sources, they want to know how severe will be power failure during the irrigation season. Health and healthcare related issues have been identified as most critical for the community's wellbeing. It was identified that both most occurred diseases and problems related to access to health care are important for the community people. People want to know about sources of job information, rules and regulations and laws related to labor rights, support for job application. It is argued that rural students do not get access to higher education mainly due to their lack in getting upgraded and timely information. It was found that the students need information on admission in different institutions, public examination result, scholarships and study loan facilities. Teachers need policy related information that they collect from the education department.

Information Ecology Mapping (D.Net, 2008) identifies all sources of information and their effectiveness though PRA. The study revealed that the most frequently visited sources may not be most relevant or most effective source of information. The reasons behind high

frequency despite limited effectiveness identified are ease of access and relationship of trust. The trust relationship here was not determined as “degree of trust” rather “number of people trust”. The study shows that people prefer to discuss their problem face-to-face and they are relatively less comfortable with use of technology. However, ranking of telecenters in the group of “medium frequency” shows that the technology use for getting information is getting ground in rural areas. Compared to agriculture extension officer or block-supervisor and NGO, it was revealed that people go for information to block supervisor more than to NGO, despite NGO’s targeted intervention. Among the three types of public access venues, the library was rated lowest in terms of providing access to knowledge on agriculture. Basically it is due to more generic problem: lack of currency of the resources available in the library, level of literacy of the users and perception about the venue as for children and youth. A few journalists use websites for preparing reports on agricultural production and problems. They use websites for getting domain knowledge.

In general, it prevalent that people in the community still rely on information sources which are in their vicinity and face-to-face channels are the most preferable channels. The ICT based channels are getting gradually ground and their effectiveness and relevance are also at the middle.

1.6 Strengths, Weaknesses and Opportunities in Key Public Access Venues

The cyber café culture is hardly ten years old in Bangladesh. In 1998, a fast food shop cum-ice-cream parlor at Banani, Dhaka for the first time introduced on-payment internet service for their customers. Later, the business spread fast in different posh areas of the capital city. There are around 700 cyber cafes; all of them are located in urban areas and concentrated mostly in district towns. Geographically they are concentrated in major 11 cities and towns.

Annual average number of visitors of cybercafés is 12000, which is highest among the public access venues. The location ensures critical mass of users. The first factor, they are in urban areas, where population density high with purchasing power; the second factor, they are located mainly in market place ensuring critical mass of users.

Among the different public access venues, cyber cafes least meet requirements of underserved communities in urban areas. Children are rare clients of cyber cafes in Bangladesh. This is not for the high penetration of individualized access, it is rather due to perception of parents that cyber café is not a safe place for children.

The general users have perceptions that the cyber cafes are costly for them. More than one-third of the users opine that services of the cyber café are costly. As a result, the rich and upper middle class people remain the major customers. The research identified that 93% of the users of cyber café belong to middle and high income groups.

Location of the venue is one of the factors that is affecting equitable access. Most of the cyber cafes are located in market places, where women may feel barrier to visit the venue. Probably, for that reason two-third of the users in cyber cafes is male.

Although many of these users have computers and internet connections at their home, they prefer cyber café for a number of reasons. Half of the cyber cafes provide full privacy and average number of visitors in those cyber cafes is higher. It means users like privacy in cyber cafes.

As there is an indication that increases in private access may reduce public access, the owners of cyber cafes think to innovate new services. One of them is to search content and provide content-wise service. The owners are not aware about the local language content. Knowledge about local language content would increase users further. Children are scanty in the cyber cafes as a whole in Bangladesh. There may be special drive for them, given that safety of browsing is ensured and parents feel safe to send their kids.

The urban population is growing at a steady pace in the country, which hints that the demand for services of the cyber cafés will grow despite the rise of private access to Internet. The average national income is also growing, which helps to expand the middle class. Thus, the low income group would have better purchasing power, which will further enhance market for cyber cafes in district towns.

It is expected that the reduction of bandwidth rate to USD 400 for 1 Mbps duplex connectivity would improve profitability of the cafes, and the perception about cost of cyber café use would change.

1.7 Salient Findings

The experience of community libraries shows that true-partnership between the community and an organization initiating a public access venue would work best. The research finds that community libraries are really community oriented and effective for the community people both for enhancing educational opportunities, life skill and access to information. The experience shows, cost sharing works better than giving full cost and idea from the top.

If a venue is not only service driven but also activity driven, then the chance for success is high. Community libraries and non-urban telecenters are good example for this.

Public access venues, particularly telecenters are attracting users, as they could identify appropriate content and services, which are in demand among the citizens above 14 years of old.

Bangladesh has a very vibrant local language need based content development movement. The initiatives cover both off-line and on-line, text and picture and video and animation, computer based and mobile phone based. The telecenters are creating demand for livelihood content. The development of customized local language content in various forms and services using various channels probably one of the reasons that content could become useful to underserved groups, particularly farmers and house wives in non-urban areas. Visualization and voice enabled text would give better result.

The research shows that one of the mechanisms to make the print-disable people accessing content is Infomediary deployed in non-urban telecenters. Infomediary is a human

interface between digital content and illiterate or print-disabled people. The research shows, where there is an infomediary the user profiles are broader including illiterate people. Furthermore, the performance of infomediary influence the performance of a telecenter, where such infomediary was found.

The comparison between public access venues shows that the performance of the venues with Internet connection is way better than the venues without Internet connection.

One of the major reasons behind the relatively lower performance in terms of visitors in all three types of venues except the cyber café is availability of uninterrupted power supply. The electricity situation in urban areas is relatively better than in non-urban areas. Thus, effective number of hours for public access venues in urban areas is high compared to non-urban areas. The success of the public access venues is largely dependent on this single factor.

The Bangladesh case shows that the private sector (both for-profit and not-for-profit sector) is motivated and works towards creating public access to ICTs and information and knowledge. However, despite tremendous scope, the government was not motivated enough to contribute in this process. Without the government involvement both with investment and appropriate policy, the information and knowledge system will not be pro-poor.

1.8 Key Recommendations

Combining resources from the community and from outside can only ensure long run sustainability. Thus, in enhancing the network of public access venue this model may be promoted.

Content development remains the key for making public access venues more relevant to the cause of the community people. There is a need for systematic long term investment for making a tangible change. The content needs to be developed in variety of forms (text, picture, animation and their innovative combination), and for variety of channels.

An activity centric venue with a set of need-based services can fulfill the demand of the community. The public access venues should exchange ideas for learning from some community library and telecenter experiences.

For making the information and knowledge useful to underserved communities there is no alternative to infomediary for along time come. Infomediary should not only extract required information for the user, but also teach the user about the vast scope of use of the Internet for the personal and common benefit of the users.

A breakthrough is required for making Internet connectivity in all types of public access venue free. Universal Service Funds, or free connection voucher issued from the BTRC may be introduced. The Internet is a cool factor for attracting visitors in public access venues.

As electricity will remain a big problem in Bangladesh it is essential to invest in low power consuming device with higher battery life.

In the whole public access venue landscape the government has a very shy presence. Rejuvenation of public library system, investment in new forms of public access venues and creation of e-governance services are three-pronged plan of the government, which may change the scenario rapidly. The government policy intervention to make the public access venue information focused and equity focused is essential.

Strengthening the support system (technical, know-how and operational) for the public access venues and building a network of all public access venues for multiplication of good values and avoiding same mistakes will enhance community benefit.

All boundary partners of public access venues should work together to mobilize resources from International bi-lateral, multi-lateral, corporate donor agencies for building and sustaining such a system by showcasing real success stories and highlighting win-win-win potential for all parties. The resources do not mean only financial resources, it must be also intellectual resources. Sharing of experiences and learning would be very important for Bangladesh as she has many things to show and share and also learn from other good stories.

The study can be a beginning for creation of an international benchmark for public access venues for channeling global resources. This can be done efficiently with the knowledge generated through this research.

2 Methodology

2.1 Venue Selection

2 paragraphs

Brief description of the selection process: how you selected the types of venues to be studied, why they were included, why others were left out.

Note: this data collection template is designed to capture info about 4 venue types. If you study in detail more than 4 venue types in the country, include a full description of the 5th one as an appendix, using the same set of questions.

There are 1119 public libraries in the country, of which 604 are funded by the government and 500 are funded by various non-government sources. The sizes and facilities of public libraries also vary. So, eight public libraries were selected for the study, which includes six urban and two non-urban, because number of urban public libraries is 819 and non-urban is 300. While urban-non-urban balance was kept nearly proportionately, urban libraries were chosen as big, medium and small, with and without ICTs, and non-urban libraries were chosen as medium and small.

There is another category of public libraries, which are community libraries. This category was taken as a separate one due to their distinct specification. They are funded by non-government and private sources. They are basically joint venture of NGOs and local communities. The ICT penetration in these venues is relatively high, above 35%, compared to public libraries, where ICTs are available only in 10% of venues. For this type of venues number of sample was 6, although total number of these venues is 2230. The reason is they are homogeneous. Out 6 venues, two were selected in urban locations and 4 were selected from non-urban locations, because, number of non-urban community libraries is 1400, where as urban is 830.

The next category was telecenters. Total number of telecenters is 1162, out of which 750 are in urban and 412 in rural. Total sample from this group was 7, of which 3 in urban locations and 4 in non-urban locations. The reason is urban telecenters are homogeneous and majority of them came from only 2 organizations, whereas the non-urban telecenters are diversified and come from more than 20 organizations.

The next group was cyber café. All 700 cyber cafes are located in urban areas, so all 8 samples are taken from urban areas. However, in selection of cyber café geographical diversity was major consideration. The summary of venue selection is presented below:

	Urban	Rural	Total
Telecentre	3	4	7
Cyber Cafe	8	0	8
Public Library	6	2	8
Community Library	2	4	6
Total	19	10	29

In each of those venues both operators and users have been identified, their numbers are presented below:

	Urban	Rural	Total
Telecentre	30	52	82
Cyber Cafe	60	0	60
Public Library	59	30	89
Community Library	34	36	70
Total	183	118	301

It is to be mentioned that although total number of libraries in Bangladesh is 20619, the other were not considered for the study. The primary reason is that these libraries are not so public in the sense that they only cater the need of a specific group and access into these venues are restricted. The distribution of the libraries in Bangladesh is given in Appendix 1. There are other initiatives, which are important but not taken in the sample for various reasons. For example, D.Net's mobile phone based helpline service is available in 26 locations. As they are linked with telecenters, they have not been included separately. Furthermore, there are mobile venues, like boat and vehicle, which have not been included as it was not possible to contact with the organization which deals with boat-based initiative and vehicle-based initiative is yet to add ICTs to the core library services.

Furthermore, there are many computer training centers across the country, both in urban and rural areas. They charge high fees for different training. These venues were not included, as they focus only training and access to information is not their focus.

2.1.1 Venues Studied

Enter the details to complete the table based on the venues studied in this country (more details will be filled in other sections):

	Public Libraries	Community Libraries	Telecentre	Cyber Cafe
Total number in country	1,119	2,230	1,162	700
A. # in Urban location	819	830	750	700

% offering ICT	10%	36%	100%	100%
Total # of people served (annual)	3,751	6,113	3,466	12,000
B. # in non-urban location	300	1,400	412	0
% offering ICT	0%	35%	100%	0%
Total # of people served (annual)	4,168	8,070	5,003	0

Comments (comment especially on definition of urban / non urban in the country):

The urban area is defined as all areas, where there is piped water, centralized sewage system. Other areas have been considered as non-urban areas.

2.1.1 Other experiences of public access to information that are not quite “Venues”

Basic information about other experiences with potential to make a difference to the public access landscape (tea rooms, wifi hotspots, coffee houses, web information portals) although they are not quite a “public information venue” in the sense defined for this study (see research design document for definition).

Other Public Access experience # 1: Info Lady and Teletathya Help line

Description :

Following the global ICT boom and some successful applications in development, in 2004 a young team at D.Net (Development Research Network) in Bangladesh, was working on expanding the access of the new ICTs to rural areas. However, given the high user costs and low access to infrastructure, combined with very poor literacy in rural Bangladesh, ICT kiosks or telecentres, though successful elsewhere, did not provide an immediate solution. Besides, in the socio-cultural milieu of rural Bangladesh, the behavior changes that required visiting the kiosks for information was also not easily achieved. It was apparent that what was needed was a combination of technology and human interface which would bridge the gap between the people and the new ICTs imaginatively. And thus was born a new phenomenon, the Mobile Infomediary. As D.Net emphasized on female because in the context development culture man can't access every household where a women can get entry in any house and communicate with the house members. So, the name of the mobile infomediary became “Mobile Lady”. The basic service of the mobile lady was to connect rural users to a help desk, where subject experts in nine livelihood areas are available through out the day to respond to different queries and provide consultation. The whole concept was named subsequently as “Teletathay Helpline”. As the mobile lady visit users at their houses the access to service became higher and campaign by the lady to visit the telecentre was successful. The idea evolved from the fact that mobile phones had a much higher penetration than fixed land phones, 95 percent of the territory, and were considerably cheaper than making phone calls through fixed phones. Also, mobile services were already popular in all the parts of the country, including rural areas, although these

were primarily offered as a phone service, whereby rural people could connect with their friends and families in rest of the country and sometimes even in other parts of the world. The value addition to use it as an information service was the concept D.Net decided to explore.

Since 2004, the Teletathya Helpline is functioning and its coverage is being enhanced, currently the services of the helpline through mobile lady is available in 26 locations. D.Net is now working on a business model for replication of the idea for the whole country. The second generation of the mobile lady is now going to offer a bunch of services, not only consultation. The mobile lady is being now renamed as “Info lady” and she is now equipped with a small portable PC (classmate or eee PC) with Internet connection, a camera, and a mobile phone. She is now ready to offer a bunch of services at the doorsteps of the rural users: content-based information services, photography services, video phone service, and all consultation services through iM (e.g. skype), both voice and text.

The experiment was supported by Global Knowledge Partnership (GKP) seed grant and subsequently integration with telecenter was supported by Manusher Jonno Foundation. The initiative received Global Gender and ICT Award in WSIS Phase II, held in Tunisia in 2005.

Total number in country: 26

% offering ICT access: 100%

% in urban location: 0%

Comments on how it is influencing public access venues in the country:

At this stage, the mobile lady is extending services of the telecenters to the door steps of the village households and promotes importance of visiting the telecenter. Because, the telecenters collaborated by D.Net are offering a number of services and organize activities which are not possible to offer at the door steps. For example, soil testing services, computer training, pre-school for children from poor households, health camp, education etc. The extension of the services at the door steps helps also improving earning by the telecenters. However, if such mobile ladies work independently without linkage with a telecenter, then it might influence the activities of the venues differently, which is a matter of investigation.

Other Public Access experience # 2:

Description :

Total number in country:

% offering ICT access:

% in urban location:

Comments on how it is influencing public access venues in the country:

2.1.2 Other Existing Public Access Venues, not included in this study

Basic information about other public access venues **not** included in the study (e-tuktuk, school or other private libraries not open to the public, health centers, etc), although they could play a role in public access information in the country. Indicate rationale for NOT including them in the study.

Other Venue not studied # 1: School on the boat

Total number in country: 35

% offering ICT access: 100%

% in urban location: 0%

Description of the Venue:

Shidhulai Swanirvar Sangstha, a not-for-profit organization in Bangladesh introduced school, library and Internet-training unit on boats for children and women living at isolated villages of Bangladesh's vast river basin, and started delivery of primary education, technology trainings, agriculture and human rights information with a view to improving literacy and livelihood conditions.

This initiative triggers idea of serving a number of communities with public access, otherwise for which there was a need for higher investment to set up more public access venues. The initiative promoted replication by other organizations in Bangladesh to set up telecenters on the boat. For example, CARE, Bangladesh initiated establishment of telecenters on the boat with local entrepreneurship under its economic development program in the north-east part of the country. As Bangladesh is a riverine country, the idea of setting up telecenters on the boat would be cost-effective and financially viable for the entrepreneurs.

Reason why it was not included in the study:

During the course of study, it was not possible to contact with the key persons

of the initiative so that data collection could be done.

Other Venue not studied# 2: Mobile Library on the Vehicle (if needed)

Total number in country: 46

% offering ICT access: 0%

% in urban location: 50%

Description of the Venue:

Bishaw Shahitya Kendra, a renowned library movement in Bangladesh has gone mobile, to overcome problem of lack of enough libraries in the country with adequate and current resources for the children and adolescent. There are 29 buses and pick-up vans, which are equipped with necessary facilities, which serve 46 districts in the country. Under the initiative a vehicle goes to a school or any other suitable institution and stay there for week to offer library services for the children. Under the initiative, a number of activities are also organized around the mobile library, like cultural competition, art competition etc.

Reason why it was not included in the study:

The initiative does not include currently ICT-based services, although it is in their plan

2.2 Inequity Variables

1-2 paragraphs each.

Describe how each variable affects equitable public access to information and ICT in this country, and what you did in this study to make sure each one was addressed (for example, if you visited venues in both urban and non-urban locations).

Also include additional variables of local relevance to your country, as you listed in Form 1, section 1a.]

2.2.1 Socio-Economic Status

Bangladesh experiences reduction poverty on the one hand, and increase in inequality among rich and poor, on the other. According to HIES 2005 (Household Income and Expenditure Survey 2005) the head-count rate or incidence of poverty using the upper poverty line was at 40% national, 43.8% rural, and 28.4% urban. The corresponding rates for HIES 2000 were 48.9%, 52.3%, and 35.2%. Head-count rates based on the lower poverty line stood at 25.1% national, 28.6% rural, and 14.6% urban in 2005. For 2000, the corresponding rates were 34.3%, 37.9%, and 20.0%. This clearly shows that poverty headcount rates in Bangladesh based on lower and upper poverty lines declined significantly between 2000 and 2005 for national, rural, and urban poverty. Poverty gap

(depth of poverty) and squared poverty gap (severity of poverty) also declined in 2005 compared with 2000. Using the upper poverty line, the poverty gap was estimated at 9.0% in 2005, recording a 3.8 percentage point reduction over 2000. Similarly the squared poverty gap declined to 2.9% in 2005 from 4.6% in 2000.

Table 2.2.1.1. Poverty Incidence (Head-count Ratio)

Year	National	Rural	Urban
Upper Poverty Level			
2005	40.0	43.8	28.4
2000	48.9	52.3	35.2
Lower Poverty Line			
2005	25.1	28.6	14.6
2000	34.3	37.9	20.0

Source: BBS (2007) Report of the Household Income & Expenditure Survey 2005, Bangladesh Bureau of Statistics (BBS).

However, according to HIES 2005 the national income Gini co-efficient, a measure to assess income inequality, shows an increase from 0.451 in 2000 to 0.467 in 2005, mostly because of increasing rural inequality. A higher Gini co-efficient reflects a worsening situation for poverty. Rural Gini Co-efficient increased from 0.393 in 2000 to 0.428 in 2005. Although the urban inequality did not get worse, neither did it improve. The urban Gini Co-efficient remained static at 0.497 in the five years. In fact, inequality in Bangladesh also deepened for the decade since 1990. The earlier HIES showed the coefficient was 0.259 in 1991-92 and it reached 0.306 in 2000. The other continued alarming trend reflected in the survey is that income share of the lower tier people has decreased while the top 50 percent's increased, widening the gap between the richest and the poorest.

In this backdrop, scope of individual access to ICTs is limited for a vast majority of the population in country of 145 million. Access to information is a dimension of access to resources, lack of which is the cause for poverty. Public access information venue, thus, is an important resource in the poor rural settings for accessing information, which may help improving livelihood of rural poor people.

In assessing the public access to ICTs in the country, the study identified users and non-users of ICTs (at individual level and through public access venues) with different social-economic status, i.e., both poor and non-poor. The poor people, identified in the study are those, whose daily income is less than USD 2.

2.2.2 Educational level

Table 2.1.1.2: Distribution of Population by Level of Education

Education Level	Distribution (%)
No formal education	42.11
Basic education (approximate elementary level)	31.72
Intermediate education (approximate high school level)	22.34
High education (post-secondary education and higher)	3.82

Source: BBS, Census 2001.

The majority of the population in the country is still with basic education (73.83%).

The literacy rate is only 47.9%, whereas female literacy is further lower, only 41.4%. While the basic literacy is low, the ICT literacy is further poor, as the access to ICTs is limited. In this circumstances, for getting the benefit of ICTs through public access venues, there is no alternative to infomediary (a human interface between the poor user of the ICTs and the knowledge base available through Internet and other off-line channels.

For the study users and non-users were identified based on the abovementioned groups (Table 2.21.2).

2.2.3 Age

Table 2.2.3.1 Distribution of Population by Age

Category of Age Group	Distribution (%)
Youth (approximate under 25)	57.72
Adult (approx. between 25 and 60)	36.06
Senior (approximate over 60)	6.22

Source: BBS, Census, 2001

The users and non-users covered under the study have been identified form the abovementioned three groups.

2.2.4 Gender

Male population in the country is more in numbers (51.89%) than female population (48.11%). The study covers both male and female users and non-users of ICTs to capture various dimension differentiated for male and female in terms of use of ICTs through public access venues.

2.2.5 Location

This is a good place to offer further details on the urban / peri-urban / non-urban definitions and relevance in your country, among other location variables.

Majority of the population lives in rural areas (76.19%).

The definition of urban area varies depending on the purpose of use. In many cases, all areas declared as municipality are considered as urban areas. There are small township with centralized water supply, which are not municipality, are considered as peri-urban areas. Other areas, where there is no centralized water supply and sewage system are considered as rural areas.

2.2.6 Other Inequity Variables

Other Inequity Variable 1: (if needed)

Other Inequity Variable 2: (if needed)

Other Inequity Variable 3: Inequity Variable (if needed)

2.3 Data Gathering Techniques

Describe the different data gathering techniques you used to conduct this study. Provide specific examples and sample selection criteria.

2.3.1 Literature Review

Describe the type and approximate number of documents reviewed. Include detailed references of the most useful ones. Include valid links for all online sources.

33 number of documents reviewed.

2.3.1.1 Most Useful Bibliography:

1. Government of Bangladesh (2007). e-Governance Horizon Scan Report: An Assessment of e-Governance in Bangladesh. Prepared by Access to Information (A2I) Programme, Chief Adviser's Office.
2. Raihan A. (2007) ed. Palliatathya – An Information and Knowledge System for the Poor and Marginalised: Experience from Grassroots in Bangladesh, - Dhaka: D.Net, 2007, pg. 80.
<http://www.bdresearch.org/index.php>. Please click on the left panel link named "D.Net Publications" and get the list list, where the book is available for free download.
3. Uddin F. and M. Hasan (2007). Access to Information for Improvement of Rural Livelihood Experience from Nilphamari, Bangladesh. – Dhaka: D.Net, 2007, pg. 75.
4. Raihan A. et al (2005). Pallitathya Help Line: A Precursor to People's Call Center. – Dhaka: D.Net, 2005.
5. D.Net (2007). Towards Knowledge Society: A Handbook of Selected Initiatives in South Asia. Dhaka: Development Research Network (D.Net), 2007.
http://www.globalknowledge.org/gkps_portal/index.cfm?&menuid=703&parentid=179
6. Global Information Society Watch Report
http://www.globaliswatch.org/files/pdf/GISW_Countries_Chapter.pdf
7. ICT4D Status Report 1.0 <http://bangladeshictpolicy.bytesforall.net/?q=node/143>
8. Moni, the Mobile Lady: An Initiative of D.Net, Bangladesh, Educom Asia
<http://www.cemca.org/newsletter/mar2007/mar2007.pdf>
9. Raihan A and SMA Habib (2007). Digital Review of Asia Pacific 2007-08. – Sage Publications and IDRC. pp- 102-109. www.digital-review.org pp. 102-108
10. Policy Brief on "Information and Communication Technology" CPD Task Force Report, Centre for Policy Dialogue
<http://unpan1.un.org/intradoc/groups/public/documents/APCITY/UNPAN006186.pdf>
11. Raihan A and M. Hasan (2005). Peoples' Report on MDG: Bangladesh: Information and Communication Technology

http://www.dnet-bangladesh.org/MDG_ICT_final.pdf

12. Raihan A (2007). Use of ICT Materials in Literacy/Skills Training Programmes: Bangladesh's Experience in NFE. Dhaka: UNESCO, 2007.

2.3.2 Individual Interviews

Describe the type and approximate number of individuals you interviewed. Include detailed contact information for the most useful ones (indicate for which topic, if appropriate). Discuss how representative is this sample of people you interviewed in relation to different opinions and perspectives in the country.

6 number of individuals interviewed.

Describe

The contact details of the persons have been given below. The interview basically focused on trends in public access venue expansion and sustainability issues. The interview also focused on investment in public access venues.

1. Mahmud Hasan, Chief Operating Officer, Bangladesh Telecentre Network (BTN), 6/4 Humayun Road, Mohammadpur, Dhaka-1207, Bangladesh. Tel: 88 02 9146313; Email: mahmud@mission2011.net.bd
2. Reza Salim, Project Director, Amader Gram ICT4D project, 11/8 Iqbal Road (1st floor), Dhaka, Bangladesh. Tel. 88 02 9124659, E-Mail: rezasalim02@yahoo.com
3. Mahmud Tokon, Executive Director, DEN & Project Director, GHAT, H-79 (3rd floor/Left), R-12/A, Dhanmondi, Dhaka. Ph-8115763, 01912004906; Email- mahmudtokon@ghatinfo.com
4. AHM Bazlur Rahman, Chief Executive Officer, BNNRC, House: 13/1, Road:2, Shaymoli, Dhaka-1207, Bangladesh. Phone: 88-02-9130750, 88-02-9138501; E-mail: ceo@bnnrc.net.
5. Syed Ziaul Huque, Team Leader (ICT), Dhaka Ahsania Mission (DAM), H # 19, R #12 (new), Dhanmondi, Dhaka-1209. Email:syed.zia@ahsaniamission.org
6. Narayn Chndra Das, Senior Research Associate, Research and Evaluation Division (RED), BRAC, 75, Mohakhali, Dhaka 1219. email: narayandue@yahoo.com.

2.3.3 Group Interviews and Focus Groups

Describe the type and number of group interviews or focus groups you conducted. If available, include detailed contact information for the most useful informants (indicate for which topic, if appropriate).

number of group interviews or focus groups.

2.3.4 Site Visits

Describe the number and location of site visits you conducted. If available, include detailed contact information for the most useful informants (indicate for which topic, if appropriate).

29 number of site visits.

All 29 venues were visited by a field survey team. The team was provided two days training on the questionnaires, the strategy and techniques of data collection. The contact details of the venue operators are given below:

Telecentre:

1. Mr. Tuhin, Grameen Phone CIC, Circular Road, Sadar Gaibandha, District: Gaibandha
2. Ms. Kakoli Rani Haldar, Amader Gram Knowledge Center-1, Sreefoltola, Rampal, Bagerhat 9300, Bangladesh. Cell: 88 01920639029.
3. Mr. Mehedi Hasan, Centre Manager, GHAT (Information Centre), Mokamtala Bandar, Shibgonj, Bogra, Bangladesh. Cell: 88 1716298888
4. Mou Mita Computers, Grameen Telecom CIC, Upazila: Sundarganj, District: Gaibandha.
5. Mr. Subroto Kumar Mukharje, Centre Manager, Pallitathya Kendra, Samauddin Nahar Trast, Village: Boitpur (Citoly), Sadar Upazila, Bagerhat, Bangladesh. Cell: 88 01715914408
6. Mr. Abu Jubair, Centre Manager, Digonter Dak Pallitathya Kendra, Maijdee, Noakhali. Email: ddak1@pallitathya.org
7. Ms. Biva Nag, Cluster Operation Manager, Internet Learning Center, Chowara Girls High School, District: Comilla, Bangladesh

Cyber café:

1. Blue Planet- Dhanmondi Plaza, House # 8/A, Road # 6 Dhanmondi, Dhaka-1205. Tel: 88 02 9663392, 88 02 9348092. E-mail: mrimmoy@hotmail.com
2. Ehteshamul Huda (Faisal), Proprietor, CD Care Cyber Cafe, 103/A-4, Green Road (1st Floor) 3. Farmgate, Dhaka-1215. Cell: 88 01727277666
3. Net Point, Central Plaza (2nd Floor), O. R. Nizam Road, Chittagong. Tel: 88 031 620591.

Email: zahir.bd@gmail.com , netpoint.bd@gmail.com

4. Cyber INN, Nur Complex, Foy.S Lake Road, Kulshi, Chittagong, Tel: 88 031-659519.
Email: babuchy@yahoo.com, mail2shimul@yahoo.com

5. Ruba Cyber Café, 5 Star Plaza, Nirala More, Khulna. Cell: 88 0171018806. Email:
wahid_mariner@yahoo.com

6. Ahana net and Cyber Café, Shair Plaza, East Zindabazar, Sylhet. Tel: 88 0821 721034,
Cell: 88 01711 388449, Email: nurul2005@hotmail.com

7. Mr. Iqramul Jalil, Managing Director, Sylnet IT & Billiard Zone, Manru Shopping City,
Chowhatta, Sylhet Tel: 88 0821 724684, 88 019 685108. E-mail: sylnet_cafe@yahoo.com,
sumon1974@hotmail.com

8. Mr. Monzurul Islam, e-hut MS Computer & Cyber Café, Shenpara, Mirpur-10, Dhaka. Cell:
88 1911642076. Email: ms@bracnet.net

Public Library:

1. Central Public Library, Kazi Nazrul Islam Avenue. Shahbagh. Dhaka. Tel: 88 02 862819

2. Bangladesh Lok O Karushilpa Foundation Patahgar, Sonargaon, District: Narayanganj,
Bangladesh

3. Dr. AR Mallick Sriti Patahagar, Village: Rajapur, Thana: Dhamrai, District: Manikgonj,
Bangladesh

4. Hridoy Smriti Patahgar, Village: Elenga, Kalihati, District: Tangail

5. Md. Abu Jahid (Librarian in charge), Jessore Institute of Public Library, 15 M.M. Ali Road,
District: Jessore. Tel: 88 0421 65014

6. Annoda Gobinda Public Library, A. Hamid Road, Sadar Upazila, District: Pabna

7. Chittagong Public Library, Anandakilla, Chittagong, Bangladesh

8. Muslim Institute Public Library, 10 Shyam Charan Road, Sadar Upazila, District:
Mymensingh, Bangladesh

9. Narsingdi Public Library, College Road, Sadar Upazila, Narsingdi, Bangladesh

Community Library:

1. Community Resource Centre, Dhaka Ahsania Mission, Village: Godaichor, Union:
Nuralapur, Madhobdi, Narshingdhi, Bangladesh

2. Papri Community Resource Centre, Village: Shilmandi, Union: Shilmandi, District:
Norshingdi, Bangladesh

3. Ms. Sheuli Acharjya, Librarian, Community Centre, Abdul Kuddus High School,

Konabari, District: Gazipur, Bangladesh

4. Community Centre, Kashimpur High School, Konabari, District: Gazipur, Bangladesh.
Contact person: Abdul Gani, Area Manager, BRAC-PAGE, Cell: 88 01716 105193.

5. Mr. Mofizur Rahman, Senior Program Officer, Community Development Library, House # 67/B, Road # 9A, Dhanmondi R/A, Dhaka-1209, Bangladesh. Tel: 88 02 8113769, 88 02 8110495, 88 02 9130365. E-mail: cdl@bol-online.com

6. Mr. Md. Ishtiak, Bishay Shahitto Kendro, 14 Kazi Nazrul Islam Avenue, Dhaka – 1000, Tel: 88 02 9660812, 88 02 8618567, 88 02 8621729, Fax: 88 02 9671191

2.3.5 Surveys

Describe the location and number of respondents to surveys you conducted for this study. Indicate their relative distribution across venues (for example, 30% in telecentres, 20% in cybercafés, 50% in public libraries), and how they were selected.

Describe the venues, their locations and the sample size for each:

	Public Libraries	Community Libraries	Telecentre	Cyber Cafe
# urban venues surveyed	6	2	4	7
# non-urban venues surveyed	2	4	4	0
# respondents in urban venues	59	34	30	60
# respondents in non-urban venues	30	36	52	0

Survey description & comments:

Four types of public access venues were considered for the survey. The sample was distributed based on the total number of venues by category in the country. Distribution of sample: 28 % public library, 28% telecentre, 24% cyber cafe and 21% community library. The plan was to select sample equally in urban and rural locations for each category. Target venues were identified using the national library directory, list of cyber cafes (collected from cyber cafe association) and country telecentre database (collected from Bangladesh Telecentre Network).

Two sets of semi-structured questionnaire were developed to conduct the survey with venue users and operators.

2.3.6 Other Data Gathering Techniques

Other Data Gathering Technique 1:

Other Data Gathering Technique 2: Data Gathering Technique

Other Data Gathering Technique 3: Data Gathering Technique

2.3.7 Most Useful Contacts

List here some of the most knowledgeable and useful contacts that can provide additional information and insight, in case someone else wants to gather additional information about this topic in the country.

1. Professor Zamilur Reza Chowdhury, Vice Chancellor of BRAC University, vc@bracu.ac.bd
2. Abdul Mueyed Chowdhury, Chair person, Bangladesh Telecentre Network: mueyed.chowdhury@bracnet.net
3. Dr. Hossain Zillur Rahman, Chairman, Power and Participation Research Centre, currently Adviser to Caretaker Government of Bangladesh for Education and Commerce ministry: hzillur@bdonline.com
4. Reza Salim, Project Director, Amader Gram: rezasalim02@yahoo.com , info@amadergram.org
5. AHM Bazlur Rahman, CEO, Bangladesh NGO Network for Radio and Communications: ceo@bnrc.net
6. Shahid Uddin Akbar, Executive Director, Bangladesh Institute of ICT Development: Shahiduddin.Akbar@swisscontact-bd.org
7. Mohammad Zakaria, CEO, GOUF: goufbd@gmail.com
8. Nazrul Islam, Country Representative, Relief International: nazrul@ri.org
9. TIM Nurul Kabir, Chairman, Digital knowledge Foundation: nurul.kabir@spinnovation.com.bd
10. Rezwana Ahmed, CEO, Shidhulai Swanirvar Sangstha: info@shidhulai.org

2.4 Research Trustworthiness & Credibility

2-3 paragraphs

Describe any steps you took to minimize your own bias in conducting this study, and to increase the credibility and trustworthiness of the results you are presenting.

The findings presented in the study are based on primary survey and secondary information collected from different published sources. In all cases, proper citation and references were mentioned. No personally collected data was used.

2.4.1 Research Limitations

Describe important limitations you encountered in conducting this research, and limitations in drawing generalizations or broader conclusions based on the findings you report.

The major limitation of the study is limited number of sample. Due to budget limitation it was not possible to conduct survey with large sample. However, the limitation was attempted to overcome by interviews with key informants of respective categories of the venues.

2.4.2 Team Qualifications

1 paragraph

Description of the research team and its qualifications to undertake this study.

The research team was composed of experts in ICT4D and experienced librarian in the country. The authors of the study have many international publications on public access to ICTs. The team leader is a member of national ICT task force under the Chief Advisor's Office.

3 Country Assessment

3.1 Overall Country Assessment

Provide a broad picture of the public access information landscape in the country, informed by the results of this research. In 2-3 paragraphs, what is your overall assessment of public access information venues in this country?

Bangladesh is a least developed country with highest population density in the world and with per capita income little higher than USD 500. It is a miracle that how around 145 million of population live in a tiny territory of 147,570 sq. km and still thrive and make progress in both economic and social-political fronts. Bangladesh has experienced dramatic reduction in poverty during first half of the first decade of the third millennium. As was mentioned earlier, according to Report on the Household Income and Expenditure Survey 2005 (HIES 2005) the head-count rate or incidence of poverty using the upper poverty line (based on CBN method) was at 40% at national (43.8% rural, and 28.4% urban). The corresponding rates in 2000 were 48.9% (52.3%, and 35.2%). Head-count rates based on the lower poverty line stood at 25.1% national, 28.6% rural, and 14.6% urban in 2005. For 2000, the corresponding rates were 34.3%, 37.9%, and 20.0%. This clearly shows that poverty headcount rates in Bangladesh based on lower and upper poverty lines declined significantly between 2000 and 2005 for national, rural, and urban poverty. Poverty gap (depth of poverty) and squared poverty gap (severity of poverty) also declined in 2005 compared with 2000 [BBS, 2007].

Although poverty reduction takes places at a relatively faster pace, the country can not wait another 40 years for being a poverty free country. Thus, the national aspiration or epicenter of all endeavors is poverty reduction. In such endeavors ICTs must become a catalytic factor rather than standalone issue of development of ICTs. The poverty reduction strategy paper (PRSP) for the years 2005-07 identified a number of measures for mainstreaming ICTs in economic development process. Progress was achieved in some areas, for example, in mobile telephone, whereas in other areas the progress was slow. However, public access information venue landscape is vibrant in Bangladesh. There are three major streams in the country which are working for creation of public access to ICTs. The most significant stream is lead by private sector, which works for setting up public access venues like cyber cafes, telecenters and also access to ICTs in libraries. Two third telecenters in the country are established by the private sector entities and there is a plan to establish 5000 more telecentres by 2009. It is to be mentioned that the country's library system is largely dependent on the private individual and organization's contribution. Out of the 1119 public libraries identified by the study, only 604 libraries are financed by the government. The rest of them are all private initiatives. By private it is meant that they are not by NGOs or government, they may be for-profit or not-for-profit. The second largest contributor to the public access venues are NGOs and not-for-profit organizations.

The study identified that the list of services provided by telecenters is longer than those provided by cyber cafes and public libraries. The major difference between information services provided by cyber cafés and telecenters is that the information search in cyber café is not assisted by anybody, whereas information search in telecenters are assisted by infomediary. This difference makes telecenters more public than cyber cafes, which means illiterate and computer illiterate groups can access to ICTs in telecenters, whereas only literate and computer literate people can access services offered by cyber cafes. In the context of poverty in the country, the concept of “public goods” is important, thus, for-profit public access venues might exclude a large majority of the population and thus the public access venues will remain “partially public”. The community libraries have appeared as an alternative to public library system with a total number of venues 2230. The beauty of these venues that they combine services of cyber cafes and telecenters. These venues are both service centric and activity centric. The cost of access to these venues is lowest among all four categories of venues. The level of social appropriation is much higher in these venues. Another important point is that both community libraries and telecenters serve underprivileged communities, which is important in the context of Bangladesh. The analysis of these venues shows that there is scope of synergy among these venues for maximizing benefits from investment.

The connectivity scenario in the country has been improved recently with access to submarine cable based high speed connectivity. A total 24 Gbps bandwidth is now available for use, however high price of Internet kept the facility underutilized. The growth in teledensity surpassed all forecast and by end of July 2008 stood at 29% [BTRC, 2008]. Total subscribers of mobile telephone were 36 million by the end of July, 2008. Competition policy and deregulation were the key for such phenomenal growth. The mobile operators offers Internet connectivity all across the country through EDGE, GPRS and CDMA technology, which allows the public access venues in rural areas offer Internet based services. Although the speed is not great for rich content, the access to Internet creates new business opportunities or the public access venues. The launching of legalized VoIP in August, 2008 has added life blood in terms of scope for generating income to the public access venues, particularly rural telecenters.

Although the presence of government in creating public access venues was almost negligible, a bunch of initiatives taken by a few ministries of the government paves the way for enhancing network of public access venues in the country. However, in this endeavor, existing public library system is ignored. The activities of the coalition of organizations Bangladesh Telecenter Network played a great role in sensitizing the government and donors in the country. The network is now working to facilitate grassroots level entrepreneurs and institutional initiators to open new public access venues through collaboration with national and international institutions like telecentre.org, Intel, Microsoft, IRRI, and UNDP. Bangladesh Telecommunications Regulatory Commission (BTRC), the regulator in the country, is very positive about creating public access facilities.

It is also noteworthy to mention that Bangladesh is pioneer in many innovative use of technology in the changing technology landscape with appropriate contextualization. As the low investment and low purchasing power is problem for spreading access to public access venues, a number of initiatives successfully introduced mobile venues (on vehicle, on boat, bare-foot lady with ICTs) and utilized the power relatively low cost

communication technology mobile phone.

The non-government participation inspires government involvement, which means that building a knowledge society will be faster through building a network of public access venues across the country.

3.2 Real Access Framework

Summarize the key findings and your assessment of each dimension in the Real Access framework used in this study. You will provide more details later.

3.2.1 Access

2 – 3 Paragraphs:

What is your overall assessment of ACCESS ecosystem in the country (physical access, appropriate technology, affordability)?

The context of Bangladesh both individualized access and public access to ICTs has been growing fast since 2000. Due to exemption of tax from imported computer, the computer penetration raised very quickly. However, due to low benchmark, the penetration rate is still low compared to other countries. The computer penetration is now 7.11 per 100 inhabitants, compared to 1.2 in 2005 (ITU, 2005 and 2007). The access to mobile telephone is growing exponentially thanks to appropriate competition policy in light of National Telecom Policy of 2000. The current teledensity is 29%, combining mobile, fixed line and PSTN penetration. Despite global recession, the subscribers' number is still growing and in July, 2008 the additional subscription number was 1.1 million. The whole country is now covered with telecommunications network and anybody from anywhere can talk and browse Internet through EDGE, GPRS and CDMA technology.

Although, Bangladesh achieved significant progress in terms of poverty reduction, more than one-third population is still living below the poverty line (40% in 2005). Still 70% of population can not afford access to computer at home. Thus, importance of public access to ICTs is very high. The public access facilities are growing fast during last five years and currently total number of public access venues with ICTs is 5211. The highest number of public access venues with ICTs is in telecenters, majority of which is owned by private sector. The second highest access to public access venues is provided by the community libraries, again established by private sector and NGOs. There are 700 cyber cafes in the countries, all of which are in urban areas and operated by for-profit entrepreneurs. Out of 1119 public libraries, only 10% venues have ICT facilities, only around 20 libraries are funded by the government. A few telecenters are located in the government owned premises, like local government offices, however, financed by donors or NGOs. Thus, government's presence in the public access venues is almost absent. The government recently has taken a number of initiatives to catch up with the private initiatives in creating public access venues, all of them at the moment of waiting are at design phase.

The public access venues are equipped with minimum four computes. Many of them have fax machine, web camera, Internet connection, video screen, mobile phone, scanner, photo-printer, normal printer and photocopy machine. Majority of the public access venues use un-licensed operating systems, particularly of Microsoft. For mail server, the venues use Linux operating system. For Internet browsing and email, many public access

venues use open source software like mozilla firefox and thunderbird. Most of the public access venues use open source and free anti-virus software.

The mobile phone call rate is now cheapest in Bangladesh at least among the South Asian countries [Samarajiva and Zainudeen, 2008]. The call rate for fixed phone has also been reduced several times and in July 2008 the rate was reduced further. The access to Internet through mobile phone, however, remains costly. For monthly use of Internet through mobile technology a user generally pays USD 14. The price of broadband Internet connectivity was reduced three times in 2008 and in July stood at approximately USD 400 for 1 mbps duplex dedicated connectivity. Such reduction would promote business in ITES and public access venues would be able to earn more money for ensuring financial sustainability. The access to services in public access venues are generally affordable except those who are living below poverty line. For them, many telecenters offer free-of-cost services. The activities around telecenters are generally free. As a whole, affordability scenario is improving quickly due to policy intervention by the BTRC and competition.

3.2.2 Capacity

2 – 3 Paragraphs:

What is your overall assessment of CAPACITY ecosystem in the country (human capacity, locally relevant content, integration into daily routines, socio-cultural factors, trust in technology, social appropriation of technology)?

A considerably high proportion of people do not have access to formal education (42.11%), and people with basic education comprises a large share of educated population (31.72%). Only very insignificant (3.82%) got the opportunity to avail post secondary or higher education. This is one of the major barriers for human capacity development in the country. Adult literacy rate in the country is 47.5 percent and the enrolment rate 56.01percent. The Human Capital Index of UN which is the composite of the adult literacy rate and the combined primary, secondary and tertiary gross enrolment ratio is 0.5033 for Bangladesh. Developed countries are generated rated very close to 1 and a number of developing countries are having considerably better index than Bangladesh (UN, 2008). Human Development Report 2007-08 of UNDP grouped Bangladesh as Medium Human Development countries and ranked 140 out of 177 ranked considering Human Development Index.

There is no formal statistics on human capacity in use of technology, however, the other correlated information (computer penetration rate) hints that the knowledge about use of computer is still low, despite high growth. At the present time 21 public universities, 52 private universities, 31 colleges under the National University and a number of foreign affiliated universities/institutes are offering computer science courses, producing about 5000 computer science graduates per year (Khan, 2007).

One important point is that out of more than 17000 secondary schools, at least 10000 schools have at least one computer. However, full-blown computer laboratory or learning facilities are limited within 1000 schools, 90% of which are located in urban areas. A few private, social enterprise and NGO initiatives work for enhancing ICT learning facilities in rural areas. The government has taken a plan to bring all schools under computer

sources. Towards this end, Bangladesh Computer Council has taken steps to distribute computers and accessories to secondary schools, including training of teachers of these schools under the project "Assistance to Secondary Schools for Introducing Computer Courses". In order to introduce computer courses in all secondary schools, a large number of computer teachers/instructor is needed. To address the problem of shortage of IT instructors a program/project has been taken by the Government to conduct 1-year Post Graduate Diploma in Computer in 7 public universities. Under the project "Conducting Standard Training Course at Divisional Headquarters", Bangladesh Computer Council has set up ICT training centers at all the six Divisional Headquarters. A plan is under consideration to extend this facility to the 15 remaining Greater Districts of the country [Khan, 2007].

Significant illiteracy and limited computer literacy dictates special arrangements for making ICTs immediately useful to the disadvantaged groups. Such special arrangement is availability of infomediary in the public access venues. Furthermore, the public access venues should play a role of technology learning centres. It is to be mentioned that many of the telecentres (around 30%) provide access to technologies for illiterate and computer illiterate people through infomediary and 60% of all public access venues provide computer learning training. Besides the public access venues, which provide multiple services, there are centers both in urban and rural areas, which provide only computer training services. However, their services are relatively costly. Although they are not considered in the study as public access venues, they play an important role in technology learning and thus create potential users of public access venues both in urban and rural areas.

Digital content has become a major issue, as the PC penetration and Internet access have increased across the country. In a country, where illiteracy is very high and majority of the people cannot read in any language except Bangla, it is not enough just to create public access venues. There is need for efforts to create local language content relevant to the citizens of the country. In Bangladesh, the number of websites in the national language is around 95, and the number of websites in English and other languages are about 600. Again, private sector, social enterprises, NGOs and civil society organizations play an important role in creating local language content. The government is also keen to prioritize this issue. In the draft Broad-band Policy the content issue has been highlighted [<http://www.pmo.gov.bd/bbpolicy/bbpc.html>].

All Bangla newspapers publish web version of the newspaper, which is most significant source of local language content. Bangladesh Open Source Network (BdOSN) drives a movement of creation of local content in Bangla Wikipedia (bn.wikipedia.org). Currently there are more than 18000 entries in the Bangla Wikipedia. The next important initiative is of D.Net, which created more than 30,000 pages of Bangla language content targeted for rural people addressing their livelihood problems (www.jeeon.com.bd). D.Net initially focused on CD-ROM version of the content through a browser as the Internet connectivity was not available in the rural areas at that time [see Box 1]. Another large web site www.abolombon.org is dedicated to the issues of human rights and facilitates legal practitioners accessing full text of laws, explanation of laws, addresses of legal aid institutions etc. Another local language web site is www.gunijan.org, which promotes eminent citizens of Bangladesh for the young generation. A new portal www.ruralinfobd.com came up in late 2007, which in many ways is similar to D.Net's

www.jeeon.com.bd except some content on small and medium enterprises.

The government of Bangladesh in collaboration with UNDP Bangladesh published many government forms in digital format, both in web site [<http://www.forms.gov.bd>] and CD-ROM format. A number of forms are now possible to download free of cost and accepted in government offices. Out of 40 ministries listed in the web site [<http://www.forms.gov.bd/eng/ByMinistry.aspx>], only 8 ministries partially released their forms. The forms which are downloaded by the citizens are: passport application, visa application, citizenship form, pension form, Internet connection (BTTB), birth registration, income tax return, and driving license. Availability of forms facilitates citizens to get government services in less time and often they can avoid facing rent seeking behavior of the government officials. The web site is bi-lingual and thus can be used by any literate person. Those, who cannot read, are now able to receive forms from telecenters, which are now becoming popular in rural Bangladesh. One important event in the history of access to government information took place in 2008 is the launch of website of Bangladesh Government Press or BG Press (www.bgpress.gov.bd). BG Press is the single point of publication of all gazettes and documents related to functioning of the government and state. Initially, the web site provides most of the gazettes published in 2008 and partially of 2007. This website will fulfil the needs of many professionals, who faced significant difficulties in finding government information. Banglapedia (www.banglapedia.org) is another web-based and CD-ROM based content base.

Box 1: D.Net's Demand – driven Digital Content: Unleashing Poverty Alleviation Potential of Access to Information

The content development at D.Net is unique in many ways. First of all, the approach was research based, which focused on the information needs, identified by the rural communities, and cognition level of end-users. The research identified two types of users: users, who can browse content themselves, and, infomediary [human interface between the digital content and ultimate users], who browses content for the illiterate end-users. Thus, the raw content, collected from various domain institutions, was converted into easy-understanding form. The text content was supplemented by picture. D.Net also researches and develops animated and audio-visual content as in many cases text and picture is not enough to explain something to the end-users. The research is on-going and it focuses on whole value chain of livelihood issues to be captured in the content. The content areas are agriculture, health, education, income generating activities, disaster management, awareness, employment, directory information. The rural people visit rural information centers and browse content and solve their livelihood problems. Hundreds of users could either save cost of their livelihood, enhance income generation opportunities, or protect themselves from potential loss or damage, which was not possible if they did not have access to livelihood content [see case studies at http://www.pallitathya.org/en/case_studies/index.html].

This demand-driven approach towards content development opens a whole new area of social entrepreneurship. The content is now in demand in rural institutions. Rural development organizations now buy the content for dissemination in their intervention areas.

The content-based approach gives a new direction to the global telecenter movement.

Earlier, a telecenter was essentially a technology learning centre and communication centre through Internet and phones. Now, telecenter are able to provide the core service – information and knowledge service. The content also plays an important role in improving access to information, which is an economic resource. As poverty is an outcome of access to resources problem, access to information is the new dimension in poverty alleviation discourse. Digital local language content and its dissemination system through ICTs are thus directly linked with poverty alleviation.

Other than content, access to services online is also important. The UN Web Measures Index which is determined based on presence and absence of specific electronic facilities/services available, provides with a comparative ranking on their ability to deliver on line services to the citizen. As per the rankings based on the index, Bangladesh is among the lowly rated counties. The index for Bangladesh is 0.3512, as against 0.4783 for India, 0.4247 for Pakistan, and 0.3946 for Sri Lanka (UN, 2008). The government has identified 39 'quick win' projects for providing online services to citizens and improve in ranking.

The study shows that the users of the public access venues gradually integrate ICTs into their daily routines depending on their involvement in economic activities. People involved in business, students, journalists are most frequent users of cyber café. On the other hand, adolescent boys and girls (both student and out of school), farmers, professionals, house wives are the most frequent users of the telecenters. Libraries are generally used by children and adolescents and also some youth who are seeking job (doing newspaper search). Above 40% of the non-urban users of telecenters use to come almost everyday, whereas in case of urban users, this proportion is only 20%. This is surprising. In case of cyber café, the daily visitors are only 10%, which means most of the users are incidental users. For non-urban community libraries, they are very popular to a small segment of the population, who visit almost everyday (above 36%) or two-three times in a week (above 47%). Public library is less popular than community libraries and they are less integrated into the daily life of the population for various reasons, mainly lack of updated resources.

Considering the annual number of users of the public access venues, one can conclude that social appropriation of technology is yet to take up for all three types of venues except for cyber cafes. Considering the ratio of population visiting the venues and total area the venues intend to cover, majority of the population is still to use the venues for their livelihood purposes. For telecenters and libraries, annual non-urban users are more in numbers than in urban areas. Probably alternative points of access like cyber café are available there. For example, average annual visit to cyber cafes is 12000, which is way higher than visit to all other venues, both for urban and urban areas.

3.2.3 Environment

2 – 3 Paragraphs:

What is your overall assessment of the ENVIRONMENT ecosystem in the country (local economy, national economy, legal and regulatory framework, political will & public support, regional and international context)?

The overall policy environment needs to be sensitive to the needs to the disadvantaged groups, not only for the players of ICT economy. Affordable, reliable connectivity and conducive regulatory environment for establishment of public access venues are essential for making any meaningful progress. While mobile telecommunication market showed vibrancy due to proper competition policy and increased affordability, the growth of Internet use was rather slow, mainly due to high price of Internet connectivity. It was expected after Bangladesh getting connected to information super highway in May, 2006 with SEA-ME-WE4 submarine cable, the quality of Internet connectivity would improve and cost would be reduced. However, it did not happen as expected until recently (July, 2008). The cost of bandwidth for 1 Mbps duplex is now USD 400, it was more than 1000 in 2007.

Initially, only the state-owned telco BTTB was allowed to own the only sub-marine cable network against the provision of Subsection C of Section 49 of the telecom law. However, the government now has taken initiative to provide license for sub-marine cable ownership in the private sector. This decision will allow reducing cost of connectivity further.

The Telecom Policy was introduced in 1998 and Telecommunication Act 2001 was enacted in 2001. The Act led to the formation of the Bangladesh Telecommunication Regulatory Commission (BTRC) in order to serve the goal of development and efficient regulation of telecommunication system and service in Bangladesh that started operation in 2002. BTRC now has emerged as a vibrant institution and has been taking decisions, which were pending for long time. The licensing of VoIP has been completed and the operators started offering services from August, 2008. This is an opening for low cost voice telephony for consumers. The launching of VoIP has added as lifeblood for the public access venues in terms of enhancing income and ensure financial sustainability.

The major actor in the ICT sector Bangladesh Computer Council (BCC) was formed in 1986 and BCC Act was enacted in 1990. However, the institution remained ineffective since its inception. Probably that explains absence of public access venues under the auspices of government. In June 1997, the Ministry of Commerce, Government of Bangladesh appointed a Committee to look into the problems and prospects of export of software from Bangladesh. It was undertaken by JRC Commission in 1997 under the government initiative. JRC commission came up with 45 recommendations. The government decided in June, 1998 to withdraw all import duties and VAT from all computer hardware and software, which fortunately coincided with global reduction of prices of computer hardware. This has brought the prices of computers down to a level affordable by middle income households.

The ICT policy was adopted in 2002. MoSICT assigned BCC to instigate 4 projects to foster a sustainable e-readiness in Bangladesh. They are: S1-ICT Project [e-Governance]; S2-ICT Project [National ICT Roadmap Policy]; S3-ICT Project [Network Infrastructure]; and S4-ICT Project [Human Resource & Training]. These projects are at the final stage and soon the roadmaps will be in operation.

In 2007, e-Gov cell was formed under Chief Advisors Office (CAO) to coordinate all ministries for successful implementation of e-Governance; and focal points in each ministry were appointed through assignment of a Joint Secretary to coordinate with the e-Gov Cell and within the ministry. In 2007, through a Gazette notification, the Government

instructed Ministries for allocation of minimum 2% of its annual development plan (ADP) for the ICT sector.

In 2007-08, the largest ever ICT project was undertaken by the caretaker government for issuing Voter ID and National ID. An e-Government Horizon Scan report was completed in 2008. Based on the report, 39 'quick-win' e-government projects have been identified for implementation by June, 2009.

A number of problems remain in legal and regulatory environment in the country. One of the most important problems is dormant ICT Act, 2006, which has been shelved after its enactment. Failure in implementation hinders electronic and online payment system and introduction of e-commerce in the country, growth potential of international trade and efficiency gain is not being realized.

Financing is a major issue for quick spread of public access venues in the country. The policy environment is attempted to be conducive to introduce a private sector driven model of public access. However, considering the access for marginalized group, the government's intervention in enhancing network of public access venues is essential. The intervention may be through public-private partnership, conducive financing mechanism for private sector and direct budgetary allocation. Although the government officials are now aware of the issues of public access venues, the actual implementation is yet to be seen.

As a signatory of WSIS declaration and MDGs, Bangladesh has some specific commitments, one of which is related to creation of public access venues. However, that commitment was not realized for various reasons. The important one was presence of more than one authorities, which were responsible for implementation of ICT related programs and projects. Political instability was probably another reason for lack of attention to MDG goals. The country is going have an elected government in 2009 and the attention is expected to be given to the pending issues.

3.3 Information Needs of Underserved Communities

Describe the specific information needs experienced by underserved populations, based on the results of your research. Who could benefit from better public access to information? This could relate to e-government services, health or agriculture information, job training, employment search, among many others. Include reference to the key inequity variables in your country.

- (i) If appropriate, indicate any specifics that apply to Digital ICT services alone.
- (ii) Indicate the sources of data for this assessment

The first information needs assessment for the non-urban poor communities took place in 2003 by D.Net. Subsequently, in 2006, under the auspices of the World Bank another need assessment took place, this time both for urban and non-urban population of the country. A third needs assessment was done recently under another research project titled "Investigating Economic and Social Impact of Public Access to Information through ICTs", commissioned by the Bill and Melinda Gates Foundation and IDRC led by University of Washington. This part of the study is prepared on the basis of these three documents (see references below).

Information needs have been so far identified for a number of areas: agriculture, health,

education, employment, non-farm income opportunities, disaster preparedness, entertainment, government's programs for various vulnerable groups, news etc. In this study, information needs, information seeking pattern have been presented for major information groups, for which community people search most.

Agriculture: Agriculture is the major occupation in the country. It is to be mentioned that most of the farmers are illiterate and some have an up to primary level education. Generally, the farmers face problems related to the following issues of agriculture:

1. Sources of quality seeds
2. Sources of pesticides
3. Quality fertilizer availability particularly from govt. sources
4. Power unavailability and high price of fuel for irrigation
5. Availability of block supervisor
6. Soil maintenance
7. Information on market price for agricultural commodities
8. Information on storage facilities (particularly for potatoes)
9. Information on proper crop selection
10. Prediction about agriculture production (how much rice will be produced in this area in one year)
11. Cultivation system
12. Agro tools (including irrigation equipments)
13. Unavailability of local seeds
14. Preservation system of agro products
20. Lack of processing facilities
21. Information on quality of water for fisheries
22. Information on appropriate technology
23. Service delivering agencies (Which officer delivers which services)

Health: Health and healthcare related issues have been identified as most critical for the community's wellbeing. It was identified that both most occurred diseases and health problems and problems related to access to health care are important for the community people. A PRA exercise identified the problems, for which they need information and support (see the list below).

1. Infectious diseases
2. Fever and head ace
3. Malnutrition
4. Maternity complexity
5. Diarrhea
6. Child health
7. Leukemia
8. Eye diseases
9. Informaton on medical advice
10. Dental problem
11. Rheumatic pain
12. Acidity
13. Blood pessure
14. Blindness
15. Obesity
16. Heart diseases
17. Pneumonia
18. Mental problem
19. Allergy
20. Bronchitis
21. Hepatitis
22. Cancer
23. HIV/AIDS
24. Bird Flue
25. Ear ache
26. Stomach ache

27. Tension
28. Vaccination
29. Awareness
30. How to take preventive measures
31. Information on medical directory
32. Availability of physician
33. Availability of ambulance
34. Chronic disease
35. Drug availability
36. Information on how to adopt first aid
37. Information on health insurance
38. Government's health policy
39. Training
40. Blood bank
41. Diagnosis centre
42. Quality testing of drug
43. Reference service from hospital
44. Information about reliable maternity clinics
45. Information on free medical services and medicine
46. Citizen charter of govt. hospital
47. Source of health services of government
48. Doctors database with specialization
49. Information on charges for treatment
50. Time of treatment (how much time it will take to recover)

Employment: List of problem/information need for employment is presented below:

1. Lack of skill for job

2. Limited experience
3. Information on better job opportunity
4. Information on job circulation
5. Rules/regulation/laws related to job
6. Identifying jobs providers
7. How to prepare and submit CV
8. Information on internship availability
9. Information on professional training
10. Reference for applying jobs

Education: It is argued that rural students do not get access to higher education mainly due to their lack in getting upgraded and timely information. It was found that the students need information on admission in different institutions, public examination result, scholarships and study loan facilities. Teachers need policy related information that they collect from the education department. In the PRA session the community people identified that they need education information specifically on the following issues:

1. Information on quality of educational institutions
2. Admission information in the country and abroad
3. Cost of education in country and abroad
4. Information on accommodation facilities in different educational institutions
5. Information on scholarship
6. Coaching centre related information
7. Information on technical education system in country
8. Source and facilities for study loan
9. How to get public and private examination results quickly
10. Distance learning
11. Computer learning facilities
12. Research information
13. Availability and source of educational materials

14. Education counseling

The information needs for urban and non-urban areas as well as needs for general citizens, business communities and government officials are presented in Appendix 2.

Source:

D.Net (2005). Access to Information for Improvement of Rural Livelihood. Dhaka: Research Initiatives, Bangladesh, 2005

D.Net (2006). Fifth Most Important Government Services and Fifty Most Important Information Needs for Citizens: Assessment of Bangladesh. An unpublished paper commissioned by the World Bank, Washington DC.

D.Net (2008). Information Ecology Mapping. A Report Prepared under a project titled "Investigating Economic and Social Impact of Public Access to Information through ICTs", commissioned by the Bill and Melinda Gates Foundation and IDRC led by University of Washington.

3.3.1 Where is Information Available?

4.2b) What are the current sources for this kind of information in the country? Are these sources adequate (current, appropriate to the population, etc.) In sum, does the locally-relevant content exist?

- (i) If appropriate, indicate any specifics that apply to Digital ICT services alone.
- (ii) Indicate the sources of data for this assessment

In D.Net, 2008 all sources of information on agriculture in three different geographical zones were mapped. The sources are divided into three groups by frequency of use. The criteria for determining a source to fall into a particular group are: at least once in two weeks: high, at least once in a month: medium, at least once in a year: low. The study revealed that the most frequently visited sources may not be most relevant or most effective source of information. The reasons behind high frequency of visits despite limited effectiveness identified are ease of access and relationship of trust. The trust relationship here was not determined as "degree of trust" rather "number of people trust". The study shows that people prefer to discuss their problem face-to-face and they are relatively less comfortable with use of technology. However, ranking of telecenters in the group of "medium frequency" shows that the technology use for getting information is getting ground in rural areas. Compared to agriculture extension officer or block-supervisor and NGO, it was revealed that people go for information to block supervisor more than to NGO, despite NGO's targeted intervention. Among the three types of public access venues, the library was rated lowest in terms of providing access to knowledge on agriculture. Basically it is due to more generic problem: lack of currency of the resources available in the library, level of literacy of the users and perception about the venue as for children and youth. A few journalists use websites for preparing reports on agricultural production and problems. They use websites for getting domain knowledge.

In general, it is prevalent that people in the community still rely on information sources which are in their vicinity and face-to-face channels are the most preferable channels. The

ICT based channels are getting gradually ground and their effectiveness and relevance are also at the middle.

The information ecology map for agriculture (Appendix 3) shows that community people prefer mostly information sources within their community, however, they go to next two levels for getting information, when need is urgently felt. The most frequently used sources of information beyond tertiary level is large market of inputs, where experienced farmers also gather, which gives scope for getting some advice. The research institutes are the second most frequently used sources, however, they are not used by farmers, rather they are used by journalists and students. At the secondary level, the most frequently visited sources are agricultural fair and wholesale market. Veterinary doctors and nursery are also visited by them.

The most frequently used sources of information on health care are: village doctor, pharmacy shop, medicine representative, and elder relatives. They are in the "High Frequency" group. This hints that people are inclined to consult informal sources for getting health related information. Print and electronic media also play some role in providing health information. People also believe and visit the traditional doctors for health facilities. Men prefer to go to traditional doctors called unani doctors, kabiraj (The Tribal communities are more likely to go to the Kobiraj because it is least costly), street medicine promoters and experienced patients. On the other hand, women prefer imaginary self applied treatment, based on knowledge transferred from generations. In urban areas, people go to the general medicine practitioners, who refer a patient depending on the need for consultations with specialist doctors.

The information ecology map for health (Appendix 3) shows that community people prefer mostly information sources within their community, however, they go to next two levels for getting information, when need is urgently felt.

In Bangladesh people use several sources for job information. Newspapers and Cyber café are mostly used for employment information collection. There is another derivative source of newspaper, "job newspaper cuts" which is also very popular in Bangladesh. Some photocopier shop collects available newspapers and cut job advertise and sell copy of those cuttings. Relatives, friends, teachers and supervisors also refer people for job which is also useful for many people. People also use sources like mobile internet, job fair, media centre, notice board, poster, radio, television as well. Appendix 1 shows detail information ecology of employment information in Bangladesh.

During the PRA, the participants identified sources for information on education, which are presented in Appendix 3.

In general, radio-television (81%), education institute (81%) and senior students (81%) are the prime sources of education information. Teachers (64%), print media (55%), and coaching centers (55%) also have a leading contribution as education information sources. 27% users visit cybercafé for the same issue. In few areas, telecenters have a potential role for access to education information. There are few places where Missionary Father provides latest education information from website. Cybercafé, NGOs and print media are the popular sources to women for education information. Training centers and coaching centers are highly potential venue for seeking education information.

Locally relevant content in the areas, where community people have identified needs, are available both in digital and non-digital format. The content development as an industry is

getting ground in the country for the Internet. The combination of traditional, new ICT channels as well as non-ICT channels are used in public access venues. Public access venues in Bangladesh use the off-line, on-line, mobile technology-based, printed and face-to-face channels. Off-line channels are local language content-database in CD forms, PC or TV based video show, letter-to-letter helpline. On-line channels are web based content-base, a few of them are www.jeeon.com.bd, www.ghatbd.com, www.knowledgebank-brri.org, www.forms.gov.bd, www.versityadmission.com, www.jeebika.com.bd; open web content bn.wikipedia.org and of course search engine like www.google.com.bd. Print media has the largest web presence in the country with Bangla content updated on a daily basis.

The libraries rely mainly on books and periodicals. The book industry in the country is thriving with annual national book fair, where 99% of the publications come out in Bangla language. The libraries replenish their stock based on their financial strength and demand. However, there is a gap in terms of meeting demand of the readers. The telecenters, as was mentioned, combine multiple channels. They also do not ignore printed content. A few of them have been publishing since 2003. Telecenter Times (Bangla), is being published in Bangla. The telecenters also organize thematic camps on various issues, on which community people have demand (e.g., health, agriculture, legal, education). Experts come to these camps and are physically present and provide consultation to the community people. Traditional ICTs like TV or PC-based video show is effective for information and knowledge sharing as well as educational entertainment. The diversity of channels could create synergy among them and creates alternative when one channel is not effective.

As the mobile phone users grow rapidly and "race to the bottom" for call rate is observed, all mobile phone operators are seeking opportunities to offer various "value added" services to the consumers. All mobile phone operators now offer 'news services' in collaboration with leading print and electronic media. The news services are now available both in 'voice' and text format. The operators also offer live score update for cricket. The banking institutions now offer account information service for their clients through SMS. Utility bill now can be paid through mobile phone in selected city corporations. Depending on the preparation of the utility service providing institutions, the service will be offered for all areas in the country. Health information service is being offered now by two operators. Voice based consultation service is offered by a private organization. Stock trading is going to be introduced very soon in collaboration with two stock exchanges in the country and mobile phone operators.

Telemedicine services, both over mobile phone and video conferencing are now provided by three companies and one social enterprise.

Source:

D.Net (2005). Access to Information for Improvement of Rural Livelihood. Dhaka: Research Initiatives, Bangladesh, 2005

D.Net (2008). Information Ecology Mapping. A Report Prepared under a project titled "Investigating Economic and Social Impact of Public Access to Information through ICTs",

commissioned by the Bill and Melinda Gates Foundation and IDRC led by University of Washington.

www.grameenphone.com

www.warid.com

3.3.2 What are some of the Key Barriers to Access the Information that Underserved Communities Need?

Are the people who could benefit from this information getting access to it? Why or why not? (E.g. content exists but not in the right language, print media exists but has not been distributed appropriately, digital media is available but people do not have access points, etc.)

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

There are some barriers of access to information, which are generally applicable to all citizens; on the other hand, some barriers are special and applicable to only underserved community.

The most common general barrier is access to quality education. As was mentioned earlier, 73.83% of population either do not have any formal education, or have only basic education. The limitation in education does not allow them to search for information from formal sources. They avail various kinds of sources for meeting demand for information, which are not always effective, current and correct (except some traditional knowledge, which are proven for decades).

The public access venues are still limited in number, in a country of 145 million, there are only 5211 public access venues. This is a major barrier for accessing information by the disadvantaged community. Furthermore, more than three-fourth of the venues, does not offer assistance of infomediary for searching information; as a result illiterate people are deprived of taking advantage of modern technology.

Location of venue was identified in the survey as a barrier for non-urban telecenters, urban public libraries and community libraries. Hours of operation is also identified as a problem for non-urban telecenters, urban cyber cafés and urban public libraries. Lack of appropriate training was identified as a barrier in all four types of venues.

Electricity is a major barrier for maximizing utility of existing public access venues. Everyday average 1.8 hours is lost from the hours of operation of the public access venues. The electricity is not available in many parts of the country; as a result establishment of public access venues with ICT facilities is costly with alternative power sources, like solar and generator.

Purchasing power is another crucial barrier for accessing information by the underserved communities. Cost is identified by all users except in non-urban community libraries. The services offered by the public access venues are affordable for middle class, but poor people cannot avail information services, as paying a single taka is sometimes difficult for getting information. Sometimes, community people in an underserved community avail information services, but cannot use it due to lack of money for availing services prescribed by it.

Lack of understanding and wrong perception about the public access information venue is also a reason, why many potential users do not come to telecenters or cyber café for information. In

some cases, people know a telecentre by its most popular service, and are not aware about other services offered by it. For example, a telecenter in a northern territory is known as a photography studio, because photography is the most popular service from that centre, although it also offer information service. Cyber café is known as a venue only for educated people, thus disadvantaged group do not try to visit them. The libraries are also not visited by marginalized people, as they know it a centre for student only.

Despite some good initiatives, the scarcity of content is a major barrier to accessing information by the marginalised people, because whatever content is available, only a few of them are relevant to their life and livelihood. The language of content is also a problem.

Source: Site visits and interview with operators of the venues

3.3.3 How do users experience different types of public access venues?

Based on responses to the open question in user surveys, how do users experience different types of public access venues? Are there any trends or preferences for kinds of information, services or activities in one type of venue over another?

In terms of number of services and diversity, the community people have understanding that the telecenters provide highest number of services including information services related to their livelihood (agriculture, law and human rights, healthcare, non-farm activities, employment information, disaster preparedness, awareness and education). Many telecenters provide both basic and advanced ICT training. Furthermore, a number of IT enabled services are also provided by them (for example, photography, blood pressure and weight measurement, computer composing, prints). The cybercafés are generally providing access to Internet, which are used by relatively more educated and ICT-knowledgeable user groups for job search, learning materials, games, news paper reading, sending news to newspaper, exchanging business information, exchanging letters between relatives, applying for diversity visa to US, getting results of public examinations, downloading different government forms etc. Some users are more advanced; they use ICT facilities for trading stocks online and also for banking. The libraries provide reading facilities and lending of books, and periodicals. The use of ICT facilities in libraries is less than in cyber cafes. However, additional activities are quite a few in numbers, with a few exception. Integration of different facilities like reading, internet browsing, entertainment, cultural exhibition etc. made the community libraries effective to the users. Telecenters are rather diverse, some of them are truly community place and others work only in service delivery mode. The “coo’ factor for community libraries is “educational CDs’, whereas use of Internet in non-urban venues amaze the users.

Users face a number of barriers in accessing public access venues. Most significant are: cost, inadequacy of appropriate content and resources, in appropriate language or content, capacity to use ICTs, and electricity failure. Inadequacy of content and resources are applicable for mainly public libraries, in some cases for urban telecenters. By the usage pattern of the venues, it is found that each of them some special character. For example, public libraries are experienced as source of educational resources. Cyber cafes are experienced mainly as efficient Internet use and communication. Telecenter experience is

mixed. Urban telecenters are similar to cyber cafes, whereas non-urban telecenters are experienced as a source of livelihood information. Community libraries are different as the major focus is activities as well as services. Only community libraries are truly a place for youth, the next in rank is telecenters. In terms of cost, community libraries are cheapest among the venues, followed by telecenters and public libraries. Public libraries has got image of repository of back-dated resources except a few urban libraries.

3.3.4 Inequity Environment in the Country

2-3 paragraphs

What does inequity look like in the country? Using the inequity variables described in section 2.2, provide a short overview of the main underserved groups, regions and/or other locally-appropriate segments of the population.

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

The gap between rich and poor people is big and it is increasing, although overall incidence of poverty in the country is on decline. Thus, the poor people are generally underserved. Only non-urban telecentres and community libraries provide services to at least a portion of poor segment of the community. Rajshahi and Barisal are the poorest divisions in the country. In 2005, Barisal division had the highest head count rate (using upper poverty line), at 52.0% followed by Rajshahi division 51.2% whereas at the national level poverty rate was 40.0% (BBS, 20007). Although Rajshahi division obtains large share of community libraries, Barisal division is really deprived in terms of presence of public access venues. Only 54 telecenters and seven community libraries are present in the division in this division. The next less penetrated area is Sylhet division, where out of 1162 telecentres only 63 are available for the people.

Rural areas are more deprived in terms of availability of access facilities. The level of individualized access in urban areas is higher than rural areas.

The design, location of and perception about urban telecenters are not women-friendly, thus only one-fifth of the users of the urban telecenters are female. Interestingly, urban public libraries also see limited female users, which is strange. One explanation was that there is no targeted campaign at urban public libraries (which are generally government funded) compared to community libraries.

The statistics shows that 42.11 percent of total population is without any formal education. This group is among the most vulnerable and deprived groups in the society.

The indigenous people are also underserved in terms of access to public access venues. There is only three venues in the areas, where indigenous people mainly live in.

Senior citizens do not visit telecenters and cyber cafes. On the otherhand, very limited number of senior citizens visits libraries, only 5% of total users of public libraries and 3% of total users. Similarly, children (age of 14 years and below) seldom visit telecenters and do not visit cyber cafes.

3.3.5 Freedom of Press and Expression & Right to Information

What is the overall perception of freedom of press, censorship & right to information in this country?

The overall perception about freedom of press is positive both for print and electronic media. However, declaration of a state of emergency in January 2007, with blanket media censorship, struck at the heart of press freedom in Bangladesh. Following a series of meetings between editors, senior journalists and the officials of the newly formed caretaker administration, the ban was relaxed allowing the media to report factually, especially on political stories. Television channels went back on-air with news programs and the newspapers began to publish stories, albeit with some degree of censorship. The Information Ministry is now encouraging the media to support the interim administration's cause, resulting in a kind of self-censorship, as no media reports wish to be perceived as critical to the present administration. (http://www.bmsf-bd.org/press_freedom/Press_Freedom_0607.pdf)

Interestingly, the current government initiated a process of formulation of a right to information act. Such act was demanded by all civil society groups and Indian act was an inspiration. The citizens' group drafted a law and handed over to the Ministry of Information. A draft was launched by the government, which was severely criticized by the political parties, media and civil society groups. Major complain against the draft was that it was to protect government officials for not disclosing information under different excuses. The draft law has been rejected by the media community as they apprehend that it would promote rather non-disclosure of information by the government officials.

3.4 Charts: Information Needs, Users & Uses

Based on the results of your research (especially user surveys and interviews with librarians and operators), complete the required data to chart the information needs of underserved communities using the following examples. Provide any explanatory comments as needed.

	other																
	other																
Ethnicity (if appropriate)	Dominant	90%	90%	90%	90%	87%	84%	89%	86%	95%	95%	96%	96%	92%	91%	89%	88%
	Plain land indigenous people	10%	10%	10%	10%	13%	16%	11%	14%	5%	5%	4%	4%	8%	9%	11%	12%
	Hill tracts indigenous people	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	other																

Source: User Survey

Comments, including comments on other inequity variables.

3.4.1.2 Information People Seek, by type of venue

(estimated proportion in each category, %)	Public Libraries				Community Library				Telecentre				Cyber Cafe			
	Urban		Non-urban		Urban		Non-urban		Urban		Non-urban		Urban		Non-urban	
	General use	ICT use	General use	ICT use	General use	ICT use	ICT use	General use	General use	ICT use						
Education	44%	25%	44%	0%	25%	31%	27%	28%	26%	26%	23%	24%	25%	0%	0%	
Health	3%	25%	2%	0%	4%	6%	6%	6%	10%	10%	20%	13%	14%	0%	0%	
Agriculture	1%	0%	0%	0%	2%	0%	9%	9%	1%	1%	13%	15%	4%	0%	0%	
Government services	1%	0%	0%	0%	7%	11%	0%	0%	1%	1%	2%	3%	7%	0%	0%	
Entertainment	12%	15%	38%	0%	30%	18%	19%	20%	10%	10%	2%	3%	11%	0%	0%	
News	38%	25%	14%	0%	14%	17%	30%	27%	7%	7%	21%	10%	17%	0%	0%	
Personal	1%	0%	2%	0%	4%	3%	0%	0%	14%	14%	11%	13%	18%	0%	0%	
Other	0%	10%	0%	0%	12%	14%	9%	10%	33%	31%	8%	19%	4%	0%	0%	

Source: User Survey

Comments: (Include description of "other". Suggested headings based on frequently reported topics in other research and may vary across countries).

Other: Job information, law and human rights, non-farm economic activities, awareness, business information, tourism, in cyber café there is no information service though "general use"

3.4.1.3 Uses of ICT, by type of venue

(estimated proportion in each category, %)	Public Libraries				Community Library				Telecentre				Cyber Cafe			
	Urban		Non-urban		Urban		Non-urban		Urban		Non-urban		Urban		Non-urban	
	General use	ICT use	General use	ICT use	General use	ICT use	ICT use	General use	General use	ICT use						
Email		30%	0%	0%		10%	5%		36%		12%		34%	0%	0%	
Chat		0%	0%	0%		8%	0%	0%		17%		6%		21%	0%	0%
Web browsing		40%	0%	0%		29%	31%		37%		16%		27%	0%	0%	
Blogs & social networking		0%	0%	0%		7%	0%	0%		7%		6%		3%	0%	0%
Commerce & business		0%	0%	0%		0%	0%	0%		2%		11%		3%	0%	0%
Phone or webcam		0%	0%	0%		8%	0%	0%		2%		8%		7%	0%	0%
Games		0%	0%	0%		2%	14%		0%	0%		4%		4%	0%	0%
Other		30%	0%	0%		36%	48%		0%	0%		38%		0%	0%	0%

Source: User Survey

Comments: (Include description of "other". Suggested headings not exhaustive, based on frequently reported topics in other research and may vary across countries).

Desk top publishing, Educational and Entertainment CD browsing, Computer Learning

3.4.1.4 Frequency of Use for each type of venue

(estimated proportion in each category, %)	Public Libraries				Community Library				Telecentre				Cyber Cafe			
	Urban		Non-urban		Urban		Non-urban		Urban		Non-urban		Urban		Non-urban	
	General use	ICT use	General use	ICT use	General use	ICT use	ICT use	General use	General use	ICT use						
First visit	5%	0%	27%	0%	9%	16%	3%	5%	0%	0%	0%	0%	42%	8%	0%	0%
Rarely (less than monthly)	5%	0%	0%	0%	0%	0%	0%	0%	10%	10%	0%	0%	30%	8%	0%	0%
Occasional (about once a month)	8%	0%	3%	0%	3%	0%	3%	5%	17%	17%	15%	15%	12%	12%	0%	0%
Regular (about 2-3 per month)	34%	0%	10%	0%	26%	37%	5%	6%	27%	27%	23%	23%	8%	42%	0%	0%
Frequent (about once a week)	29%	0%	37%	0%	59%	47%	53%	46%	27%	27%	21%	21%	8%	18%	0%	0%
Daily (about every day)	19%	100%	23%	0%	3%	0%	32%	42%	19%	19%	39%	40%	0%	10%	0%	0%

Source: User Survey

Comments:

3.4.1.5 Barriers to use for each type of venue

(estimated proportion in each category, %)	Public Libraries				Community Library				Telecentre				Cyber Cafe			
	Urban		Non-urban		Urban		Non-urban		Urban		Non-urban		Urban		Non-urban	
	General use	ICT use	General use	ICT use	General use	ICT use	ICT use	General use	General use	ICT use						
Location, distance	2%	6%	38%		14%	16%	0%	0%	18%	13%	13%	5%	21%	19%	0%	0%
Hours of Operation	3%	9%	0%		21%	16%	17%	9%	12%	10%	11%	17%	18%	8%	0%	0%
Cost	33%	8%	21%		0%	0%	0%	0%	32%	23%	22%	21%	35%	14%	0%	0%
Lack of skills / training	18%	35%	14%		0%	4%	29%	6%	6%	17%	4%	2%	1%	14%	0%	0%
Not enough services	19%	17%	5%		12%	8%	0%	0%	9%	7%	11%	7%	10%	12%	0%	0%
Not in right language	3%	6%	0%		0%	0%	0%	3%	0%	0%	2%	0%	0%	7%	0%	0%
Not enough content	22%	18%	25%		31%	4%	0%	18%	3%	23%	4%	24%	0%	2%	0%	0%
Other	0%	2%	0%		21%	52%	54%	65%	21%	7%	33%	24%	15%	25%	0%	0%

Source:

Comments: (Include description of "other". Suggested headings not exhaustive, based on frequently reported topics in other research and may vary across countries).

Other: No Barrier, administrative difficulties, electricity failure

3.4.2 Salient Initiatives to Help Meet Critical Information Needs by Underserved Communities

What are the most salient initiatives in the country (past, ongoing, or planned) that aim to meet the information needs of underserved communities in the country? How important are they? In what ways are they successful or not? Where can more information about them be found?

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

3.4.2.1 Past Initiatives:

Help Line is one of the innovations under the Pallitathya experiment of D.Net. The early model of help line was started in 2004. The Help Line system comprises of five major components: i) Mobile Lady, ii) Help Desk with expert panel, iii) information and knowledge base Jeeon-IKB and other online resources, and directory database, iv) external expert panel and v) community beneficiaries. Generally, a female information worker called mobile lady goes door to door in rural area to assist the community beneficiaries in asking their livelihood related queries using the mobile phone to the Help Desk where experts in different fields (agriculture, health care, legal and human rights, education, government services etc.) answer those questions. Some of the questions are replied directly (especially the directory based information) and some are replied through letter/email service (which is not possible to answer directly through mobile phone).

The project was started under an action research project supported by GKP (Global Knowledge Partnership) under its Small and Seed Grant Programme for 71 working days in four villages at Babrijher, Nilphamari; Holdibunia, Bagerhat; Durlavpur, Jhenaidah and Kajoli, Magura districts. One mobile lady was deployed from each village who facilitated information seekers to share their livelihood problem with the Help Desk experts. It was found that the poorest villagers asked more questions than villagers from relatively rich area. Overall female participation was remarkable as almost 50 percent of the questions were asked by women, particularly housewives. The help line services made the crucial difference in the villages. The main benefit was financial saving, scope of avoiding costly middlemen and finally access to experts over phone, which was unthinkable in the context of those villagers.

Considering the successful outcomes of the project help line service had been integrated with the four Pallitathya Kendra (PK) which were launched in 2005. The help line service was integrated with other channels of information and knowledge exchange like Jeeon IKB, video show, internet browsing and issue based camp. The help line after integration responded to 35 per cent of livelihood questions posed by the villagers to PKs. Currently, help line is expanding to the new locations based on the success of the research phase and integration phase. D.Net is also working for launching help line across the country using multiple channels, which include web-based interactive tools like IM, email, all kinds of telecommunication channels and letter based exchange.

A country wide system of mobile ladies can ensure direct employment of up to 80,000 rural women. Apart from employing women directly, the information provided by the help line directly addressed women's needs which were mostly related to economic empowerment. Women who availed of the help line service professed a higher self-assessment and realization of their

potential and worth in society, realized increased incomes, and increased authority over spending decisions.

CLICK is a hybrid of Pallitathya (an information system for the poor and underprivileged through Telecentre) and Computer Literacy Programme (promote knowledge about and usage of computer among the underprivileged rural youths) model of D.Net. Objectives of the project was to i) create a global-standard technology learning space for underprivileged groups in rural areas; ii) nurture technology skills for emerging ICT-based professions in rural Bangladesh; iii) facilitate rural community information centres in achieving sustainability and iv) enhance information and knowledge acquiring scope for rural youths. The project was implemented by D.Net from January 2007 to June 2008 with the support of Microsoft Unlimited Potential.

Thirteen Pallitathya Kendras (PKs) were established under CLICK in collaboration with 13 local organizations across the country. PKs under the experiment obtained at least seven multimedia computers with UPS and power back up system, local language information and knowledge database, MSUP and D.Net curriculum, internet modem, mobile phone, printer, digital camera, weighing machine etc. Most importantly, all PKs were equipped with detailed information management system including system of tracking each community beneficiary. A system of offering user ID card was deployed for tracking multiple users of services and facilities at a PK.

PKs under CLICK generally provide IT skills training courses (Desktop Publishing, Web Development, Database and Infomediary) using MSUP curriculum and D.Net's curriculum. Livelihood information (agriculture, health, education, law and human rights, appropriate technology, non farm economic activities, disaster management, employment, government services, directory information etc.) is another core service of PKs for the community people. Ancillary services (email, soil test, pond water pH test, photography, diversity visa application, computer composing, printing etc.) had been integrated with PKs for maximum utilisation of resources and equipments. Around 50,000 people received services from 13 PKs during the project period January (2007 – June, 2008). The average daily service recipients from each PK was 14.6. Around 2,000 underprivileged received IT skills training from 13 PKs, among them 10% got employment after receiving the IT skills training. Currently all PKs are running autonomously.

Village Phone (VP) of Grameen Telecom provides modern telecommunication services to the poor people in Bangladesh. Grameen Bank, world famous for providing collateral-free loans to the poor in rural Bangladesh, plays a vital role in Grameen Telecom's special Village Phone program. The Bank provides necessary organizational support to GTC in selecting members, collecting bills, handle day-to-day problems etc.

A Grameen Bank member, who has a good record of loan repayment and literate or having children or someone of her family who can read and write, is entitled to have a Village Phone. Village Phone Operators under the lease-financing program of the bank provide the services to the people in the adjoining area, covering both outgoing and incoming calls. Each Village Phone remains under the custody of a village pay phone operator, who is responsible for extending the services to the customers, collection of call charges according to prescribed rates and proper maintenance of the telephone set.

GTC has 27 unit offices in different parts of Bangladesh who are responsible for the VP operation

in the field. The duties of field level Officers are to locate new coverage areas, help GB branch manager to select member(s). Also to provide after sales service, this is related to repairing handsets or problem shooting (hardware/software), bill related issues etc. GTC has an understanding with GrameenPhone whereby GTC purchases airtime in bulk for all the VPs in operation. GP prepares the monthly bills and send these for payment. GTC prepares individual bill in Bengali, the local language and send these bills to the corresponding Grameen Bank branches with a bill summary for a particular branch. Grameen Bank collects the VP bills along with its other dues. The concerned Grameen Bank branch pays the bill to GTC within the last date of payment. The operator's income is derived from the differences between the air time charges paid by the customer/s and the billed amount required to be paid by the VP operator along with a flat service charge.

After the successful operation of VP program, Grameen Telecom (GTC) in collaboration with Grameen Communications (GC) formally launched the 'Grameen Information Kiosk (GIK)' on 5th October, 2005 to cease the digital divide between rural & urban area through ICT and hence to eliminate poverty from the society. GIKs were setup that allows people to gain access to government officers and services from various departments. The Kiosks have internet connections so that people can communicate and interact with the rest of the world. GTC found a very high degree of acceptance of ICT from GIK project. Not only the normal use of internet, but also Marriage ceremony was held between a bride at Fatepur Village, Tangail and the Bridegroom was in Singapore through video conferencing.

The Village Kiosk operators were the critical success factor in the pilot project. The operators were a GB member who provided with a GB loan to purchase the computer and other necessary equipment. The kiosk operators were the local entrepreneur who had promoted the kiosk's services in order to operate a successful business. He/she were responsible for the management of the kiosk as well as training of people from that locality. The GB loan had been repaid with earnings from the kiosk.

In January 2006, GrameenPhone (GP) & GTC jointly launched a pilot project and installed 16 Community Information Centers (CIC) in 16 rural areas using the EDGE technology of GP network. At present, GTC has about 3 GIK, 150 CICs'. GTC has been working on ICT since 1997 through its VP project & gained lots of experiences. GTC with the help of GB & GP is planning to set up one CIC in every GB branch which in total comes around 2500 CIC's all over the country over the next couple of years.

Youth Community Multimedia Centre (YCMC) was established in Chittagong, Bangladesh by Young Power in Social Action (YPSA) targeting local youth. This center was supported by UNESCO.

More information:

www.teletathya.com.bd

www.pallitahya.org.bd/click

www.grameentelecom.net.bd/vp

Contact: Md. Zohorul Haque Biplob, Head of Village Phone program, Grameen Bank Complex, Mirpur-2, Dhaka-1216, Bangladesh. Tel: 88 02 9005387-88, 8019618, Ext-126, E-mail: biplob@grameentelecom.net.bd, www.grameentelecom.net.bd

www.ypsa.org

3.4.2.2 Ongoing Initiatives:

Dhaka Ahsania Mission launched first community learning centre, locally known as Gonokendra, in 1987. The centers are meant for lifelong learning and community development. There are more than 753 Gonokendras across the country, of which 30 Gonokendras are ICT-based. 2472 more centers are in the process of emerging. As the objective of the centers, among others, was to share knowledge and information, they started with traditional tools. Each of the centers is functioning as a community-based information centre of local GO-NGO extension departments. People come to the centers to read newspapers and exchange experience, learn from success stories, get information about innovations, which can improve their livelihoods. A few centers started using computer for interactive information communication. However, these centers do not have any Internet connection. DAM supports these centers by supplying books, newspapers, newsletters, magazines, booklets, posters, wall magazines, etc. depending on level of literacy skills of the users. Basic and advanced educational programs are being organized to cater the learning needs of local people. Linkages are being established by DAM to various other agencies to ensure access to other elements of better lives such as, health, sanitation, education, environment, credit and recreational services etc. Ganokendra members participate in various social activities. The success of the program of DAM lies in its drive to convert them with ICT facilities, which means that the communities benefited from the centers. Only 50 centers were shut down during the lifespan of the program. DAM is seriously considering graduation of these centers through integration of ICTs following D.Net's "Pallitathya Model". DAM is also starting collaboration with D.Net for developing digital content, which is needed by the rural community for improvement of their livelihood.

DAM is probably the first organization, which started developing animated and video content to be used in the centers through TV. The animation targeted both women entrepreneurship and children.

Amader gram project has established village communication, information and learning center in 2001 on pilot basis. Rural Information Center was designed to develop participatory monitoring and learning system at the village level. Accordingly, 10 Group leaders (women) have been trained to act as Information Service Providers ISP/Focal points. Those trained persons are women group members and responsible for data preservation, analysis and dissemination. The centers are primarily used as data reservoir containing all household data of the beneficiaries, basic information of their socio-economic status, the conditions of the society, and basic data on geography, culture, heritage, local resources and local governance issues. The centers played important role in upgrading community education. The Amader gram centers are primarily used as data reservoir containing all household data of the beneficiaries, basic information of their socio-economic status, the conditions of the society, and basic data on geography, culture, heritage, local resources and local governance issues. Not only be preserved, but also those data are updated, analyzed, discussed, shared and used by the trained group members. Group

members share the data in their daily, weekly and monthly meetings, which give them scope of reflection on their improvement of livelihood status. Those data are accessible to the community people. It is helping the entrepreneurs (at micro-level) by providing market information and promoting their products in the markets outside of their locality. Not only serving as a resource database, the project is creating opportunity for a large number of unemployed youth groups in computer application, training and services. This is released their time for productive purposes. The database also created a non-profit market opportunity by the user group like university professionals, researchers, and by the international/local institutes.

The Amader Gram recently started e-health program, under which 3.5 million women will get diagnostic and treatment support for breast cancer. The program was started in Rampal, Bagethat, a southern district in Bangladesh on a pilot basis in 2006. The partner of this program is International Breast Cancer Research Foundation.

Relief International-School launched school telecenters in Bangladesh in 2005. The centers was launched in 2005. Currently 27 Internet Learning Centers (ILCs) are in operation across Bangladesh, majority of which (16) are located in Chittagong. Dhaka hosts 4, Comilla hosts 3, Jessore hosts 2, Khulna and Rajshahi each hosts one such 'telecentres'. Relief International-School is equipped with 5- 10 computers with UPS for each, one long-backup IPS, one scanner and one digital camera. Connectivity varies from location to location. In some places ILCs are equipped with broad-band Internet connections and others have dial-up connectivity. The ILCs are located in Upazilla headquarters. ILC facilities are available to student throughout the school-day. ILCs offer education and training programme for school children. The teachers also receive required skill training. The curriculum followed in the education and training programmes is developed by global programme. The curriculum emphasizes on project and collaboration-based learning. The Internet facilitates communication, collaboration and sharing with other students. Students can communicate with fellow student in ILCs located in other places and also countries.

Rural Information Centre (RIC) is run by DEN (Digital equity Network) with its own investment and support from KATALYST, a multi-donor consortium working in Bangladesh. The motto of this model is developing and promoting ICT services to meet information and advisory needs of micro, small and medium enterprises (MSMEs) in Rural Bangladesh. Rural ICT centre run by DEN (Digital equity Network) disseminate business information for the local businesses in selected sectors (e.g., poultry, fisheries, potato etc) that are dominant in the localities. The centre is also a source of various social, health-related, education development, and government information. The data on users particularly number of entrepreneurs who received business information is not yet available in public domain. Similarly, data on number of users of various ancillary services like photography, photocopy, e-mail, composing, Internet browsing are also not available.

Grameenphone Community Information Centre (GPCIC) is an initiative of Grameenphone . The centre is a shared premise, where the rural people can have access to wide range of services such as Internet, voice communications, video conferencing and all other information services. Set up with technical assistance from the GSM Association, the Grameenphone Community Information Centers (GPCICs) are equipped with the minimum of a computer, a printer, a scanner, a web cam and an EDGE-enabled modem to access the Internet using the EDGE connectivity. The pilot project in February 2006, which started with 16 CICs has become a massive operation with over 500 CICs

running in around 450 Upzillas. The short term plan of this initiative is to establish CICs in all the 462 Upazillas. In the long run Grameenphone plans to increase the number of CICs substantially so that every CIC can support the information needs to 4 adjacent villages. The GPCICs are designed to be run independently as small businesses by local entrepreneurs. The entrepreneurs are trained and are provided with continuous support by Grameenphone. To help the entrepreneurs to earn more Community Information Centers also provide local people with other Grameenphone services, such as payphones (again using Grameenphone's mobile network) and electronic recharges (Flexi load) for prepaid and postpaid mobile accounts. The services available in the GPCICs include: Internet surfing and e-mailing, Content on health, agriculture, Locally relevant customized and open content, Chatting with Voice, Picture, Video conferencing, Computer Composing, Scanning, Printing, Commercial Mobile Call, E-governance services, GP value added services such as FlexiLoad, Ring tones downloading, E-Fax, CD Writing, Telemedicine services (to be introduced), and Multimedia education for children (Meena Cartoon, courtesy of UNDP).

As an innovative intervention in transferring appropriate technology in rural areas Practical Action Bangladesh established two Rural Technology Center (RTC) in villages of two districts in 2006. RTC fulfills its institutional mandate to make available affordable and appropriate technologies for accessing information and communication technology services. Rural Technology Center (RTC) maintain a computer and land phone with internet connection which provides information and technology services for farmers, traders, entrepreneurs and other clients. A photocopier in RTC helps clients to make copies of his/her selected technology papers on payment. Height and weight measurement tools and charts are available in RTC. Essential agro-processing equipments such as grain moisture meter, refract meter, pH meter, salinometer, acid titration set, spice grinder, microwave oven, milk cream separator, digital thermometer, blender, mixing tank, sealing machine, heat gum etc. are available in RTC for demonstration and use to prepare pickle, chutney, jam, jelly, chanachur, spices powder etc. on rental/payment. RTC also provides employment information for local unemployed youths, including educated youth from poor families, displaced workers, and the underemployed. RTC is mainly a self sustained private facility which helps to increase the growth of village economy.

D.Net conceived the idea of 'Pallitathya' in 2001 with a research on relationship of ICTs and poverty alleviation. The research established that access to livelihood information could improve livelihood of the poor. Based on the needs assessment, D.Net found that while traditional channels are important and un-replaceable by ICTs, it still can play a critical role in allowing access to many livelihood information and knowledge. As there was no tailor-made digital content for the rural people, D.Net developed content in nine areas of livelihood. Other than developing content, a directory database was set up to provide information covering address, locations, availability of services and products, prices of products and services etc. that are required by the rural communities. For broadening thematic areas, enriching exiting contents, and making adjustment with the changing needs, the content development team of D.Net has been involved in their tasks considering the process as a continuous one. A dynamic website (www.pallitathya.org) was restructured for content management and upgradation. D.Net devised a number of innovative mechanisms to make livelihood information accessible to the rural poor community. It established four 'Pallitathya Kendra' (Rural Information Centre) in 2005 in four remote villages of Bangladesh. The carefully crafted mechanisms through established "Pallitathya Kendra" allowed D.Net team to

reach particularly women and people with various handicaps who seldom go outside their homes. Three out of four centres are now graduated and ownership has been transferred to local organisations.

D.Net has been facilitating 25 rural organisations to operate and expand community-based information and knowledge centers all over the country. D.Net has shifted its focus from operating its own telecenters and now providing know-how and technical support to all willing organizations. Furthermore, D.Net is also collaborating with national level institutions for integrating access to information dimension with their existing program. For example, D.Net is partnering with CARE, Bangladesh for launching telecenters following "Pallitathya Model" in north-eastern part of Bangladesh. Once it is successful, CARE will spread the initiative all over the country.

Since 2003 D.Net is focusing on local language tailor-made content for rural people on various livelihood issues. Initially, the content was hosted in www.pallitathya.org. Due to unavailability of the Internet in rural areas, D.Net launched CD-ROM based content base titled "Jeeon-IKB". "Jeeon" in Bangla means "life wand". The web version of "Jeeon" was launched in 2007 (www.jeeon.com.bd). The content provides customized information on agriculture, health, education, law and human rights, disaster management, employment, non-farm economic activities, directory information etc. D.Net is also operating a separate website www.abolombon.org with rich information on law and human rights. A job portal www.jeebika.com.bd was launched to meet the demand for employment information of rural people, which is completely in Bangla. D.Net also operates a web-based initiative titled "Gunijan" (www.gunijan.org.bd) to promote eminent citizens of the country for inspiring young generation. D.Net realized only text and picture based content can not meet demand for information by the rural people due to literacy problem. Thus, D.Net started animation based content development. One of the animation content series named as "Moni", a central character, who is the info lady, on the bi-cycle. D.Net launched a for-profit company to continue with content development activities named Multimedia Content and Communications (MCC).

D.Net is also operating a mobile-phone based helpline for consultation with experts on various livelihood issues. The extension of the services is "Mobile lady", who visits door-to-door and helps rural people, particularly women to talk to experts over phone. The service is now available from 24 locations, which will be expanded to 50 locations by the end of 2008. The initiative is titled as Teletathya (www.teletathya.com).

As the individual telecenters practitioners are working in isolation and many mainstream NGOs are preparing to launch telecenters following the existing models. Telecenters movement in Bangladesh found a momentum with the initiative of Development Research Network (D.Net) in August 2006. D.Net joined hands with two other organizations, namely Bangladesh National Network for Radio Communication (BNNRC) and Yong Power for Social Action (YPSA) to organize a workshop, that facilitate all telecenters practitioners to come under a single roof for the first time to talk about Mission 2011, which is about building telecenters in every village by the 40th anniversary of Bangladesh's independence.

Bangladesh Telecenter Network (BTN), a coalition of organizations, emerged in 2007 for fostering telecenter movement in Bangladesh. The network is based on the idea of maximizing the

advantages of information and communication technologies (ICTs) through sharing of experiences and knowledge within the components of the organization. In December 2007, BTN organized two-day event for launching Mission 2011 – a movement for building a sustainable information and knowledge system for the poor and the marginalized by 2011, the 40th anniversary of Bangladesh. The goal of Mission 2011 is to promote initiatives taken by private sector, NGOs, research institutions and other stakeholders for building various models of telecenters in Bangladesh and in other developing countries so that by 2011 all citizens of this country would have access to a telecenter for getting communication, information and other services for improving their livelihoods and quality of life. So far, 19 organizations have become members of the network. The action plan of the BTN consists of two distinct but inter-related objectives: One, Building awareness among the stakeholders including the government about the importance of building an information and knowledge system for the poor through establishment of a network of ICT-based telecenters; and supporting and facilitating functioning of grassroots level telecenters through offering a set of services, which are crucial for ensuring sustainability and scalability of the telecenters including sharing of contents.

Bangladesh open Source Network (BdOSN) has been promoting systematically the Bangla Wiki (<http://bn.wikipedia.org>) with a network of volunteers. Furthermore, Bangladesh Telecenter Network and KATALYST are working with government content generating institutions for facilitating content creation. D.Net has trained up a group of volunteers in rural areas for bottom-up content generation.

The caretaker government implemented successfully the voter ID and national ID project, the largest ICT project in the history of the country. Total 80.51 million voters were registered. The national database of citizens is developed with photograph and finger print to serve two purposes simultaneously: one is to prepare a voter list with photograph and issue voter ID card, secondly, issue all purpose national ID cards. The government made it mandatory to use national ID for many citizen services, which is an incentive to be the voter. The voter ID project was started on April 05, 2007 and was completed August 11, 2008. It is to be mentioned that in 1995 there was another attempt to prepare national ID and voter database which failed miserably [Raihan A. 2007].

GrameenPhone Ltd., in cooperation with Telemedicine Reference Center Limited (TRCL), launched a Health Information and Service known as HealthLine for all subscribers of GrameenPhone from November 4, 2006. The HealthLine Service is a 24-hour Medical Call Center manned by Licensed Physicians and accessible to all GrameenPhone subscribers. It can be reached by dialing 789 from any GP mobile phone.

The service of HealthLine is an interactive teleconference between a caller seeking health-related advice or consultation and a licensed physician who would be available on a 24 hours a day and 7 days a week basis, to receive such calls. This effort of GrameenPhone is primarily intended to enhance the health consciousness of an individual by making a few categories of health information and medical services readily available to him over a phone call.

In the context of Bangladesh, where there is an average of about one Registered Physician for every 4,000 people, this service may weigh significantly in reaching primary healthcare to the

common people. Some of the services initially available under this program include:

Information on Doctor and Medical Facilities

Information on Drug or Pharmacy

Information on Laboratory Test Report (interpretation)

Medical Advice/ Consultation from Doctor (for registered subscribers)

Help and advice during Medical Emergency☑

Moreover, a caller who would register him/herself for the service would get consultation and treatment advice over telephone from a licensed physician for both emergency and non-emergency situations. Registration is not mandatory for other services. Calls to HealthLine number 789 is charged at BDT 15 (USD 0.20) for the first 3 minutes and at the rate of USD 0.065/minute for the following minutes. There is also a one-time registration fee for a few services.

In addition to the above, a subscriber can request his/ her pathology/ radiology test reports, from designated Diagnostic Centers, to be sent via SMS to phone. The SMS follows next day by the delivery of the report at the customer's mailing address. An SMS report would be charged @Tk 10 only. Initially, the Medical Call Center has been established with facilities to entertain a maximum of 15 calls simultaneously.

To start with, a data base on the relevant information on the Registered Doctors (8,000+), Clinics, Hospitals, Medical Facilities (850+), Diagnostic Center (250+) & Drugs has been created. More services, facilities, deliverables and information to the Database are gradually added, at the Call Center, as the demand for such services grows. GP hopes to offer this telemedicine services also from its Community Information Centers, soon.

It is to be mentioned that the help line service has been replicated following a successful experiment by D.Net in 2004. The experiment showed that majority of the queries come to the call centre is related to health.

GrameenPhone Ltd. and USA-based CellBazaar have introduced a service connecting buyers and sellers in an electronic marketplace over the mobile phone. It's like a more direct, more primitive e-Bay , a phone-based equivalent of newspaper classified advertisements. The concept was developed at the MIT Media Lab at the Massachusetts Institute of Technology. This is the first time such a service was launched in Bangladesh. This is a brain child of Kamal Quadir, CEO of CellBazaar.

The service enables sellers to list details of their products, produce or even services in a database while buyers can look for any of this information through SMS. It will not handle transactions, but will simply put buyers and sellers in contact with each other via mobile phone. This also has the effect of making price information more transparent and widely available. The system is designed to be as simple as possible. It is possible to access the system using just text messages. For example if you are looking for an IBM laptop within price range of 25k-30k taka, you can simply

sms:

buy ibm

laptop

25000-30000

and then send the sms to 3838 and on the reply sms you'll get the list of ibm laptops within that price range. If you then select a laptop from the list and sms the number of that laptop to 3838 you'll get the contact number of the person willing to sell that particular laptop.

Every item/service submitted to buy/sell is valid in item list for 15 days.

Bangladesh has around 34.37 million mobile phone users, supplied by five operators, among a population of 140 million. Currently the cellbazaar platform could be accessed by 16.48 Million mobile phone users of Bangladesh through GranmeenPhone. For countries like Bangladesh, where the transport infrastructure is often poor, electronic commerce could prove to have even greater appeal, than in developed ones.

Recently the cellbazaar started voice based transaction, which is more convenient to the users.

Source: <http://rajputro.blogspot.com/2006/07/cellbazaar-first-ever-electronic.html>

More information:

www.ahsaniamission.org/programs.asp; Raihan A (2007) Use of ICT Materials in Literacy/Skills Training Programmes: Bangladesh's Experience in NFE.- Dhaka: UNESCO, 2007.

www.amadergram.org/cancer.html

www.denbd.com, www.ghatbd.com

www.gpcic.org

www.ri.org; www.connect-bangladesh.org

www.pallitathya.org; www.jeeon.com.bd; www.abolombon.org.bd; www.jeebika.com.bd;
www.teletathya.com.bd

www.mission2011.org.bd

www.ecs.gov.bd; Raihan A. 2007. Digital Review of Asia Pacific 2007-08, Bangladesh Chapter, Ottawa: Orbicom, 2007

www.grameenphone.com

3.4.2.3 Historical Trends and Opportunities to Serve Information Needs

Based on the above, what is the general trend in the country in relation to provision of public access information services? Are there any important upcoming opportunities (for example, upcoming regulatory changes, infrastructure enhancements, etc) that can impact public access information (include services

through libraries and other public information venues)?

- i. If appropriate, indicate any specifics that apply to Digital ICT services alone.

The public access venues are generally initiated by non-government sector, both for-profit private sector and non-profit sector. Telecenters and cyber cafes emerged in mid 1990s and rapidly expanded since 2005. Although public libraries and community libraries were the only information venues until mid 1990s, in term of integrating ICT-based information services, these venues are lagging behind, in terms of number only.

The rapid expansion of mobile telecommunication network since 2000 provides opportunities for the public access venues to be connected to the Internet and enhance information access opportunities. However, due to bandwidth limitation in mobile phone based Internet connectivity, it is not possible to access rich content over the internet. The telecommunication regulatory authority is working for reducing call rate and bandwidth price, which will further enhance spread of Internet based public access venues. The regulator is now working to provide license for 3G and Wi-max connectivity, which is expected to see the daylight by the end of this year. The licensing will allow the public access venues and content providers to offer rich content services like e-education, e-health and animated content for livelihood improvement. The legalization of VoIP allows now the public access venues to offer cheap international voice and video call services, thus enhance income opportunities for the public access venues.

Launch of fiber optic network under private sector, which is under process, will further enhance opportunities to enhance export oriented IT-enabled services, like call centre, medical transcription, design and other online services. The operationalization of ICT Act, 2006 is under process, this will allow Bangladeshi entrepreneurs to start state-of-the-art e-business.

The Access to Information Project initiated by UNDP and based at the Chief Advisor's Office is creating ground for launching a number of on-line citizen services. The government is currently reviewing its ICT Policy and developing ICT Road map and e-governance roadmap, which will identify specific action items for the government (CAO, 2008).

The biggest initiative undertaken by the BTN is to build an inclusive information and knowledge system for the poor and marginalized by 2011. This network will launch an online reference desk for the public access venues in case of any technical problem (www.mission2011.net.bd/support).

The establishment of Bangladesh Telecenter Network (BTN) in 2007 is another important milestone in the history of public access venue of Bangladesh. BTN has taken an ambitious program to build an inclusive information and knowledge system for the poor and marginalized by 2011. The initiative is working to create a supporting umbrella for telecenters of different models. It is hoped that the activities of the network will help the initiatives to sustain and serve the underserved communities across the country.

The comparative analysis of public access venues shows that there is a huge scope for collaboration among the different types of public access venues. The example of community libraries can boost up public library system. The content-based information services can add value

in public libraries, community libraries and cyber cafes. Telecenters can learn a lot from community libraries in terms of community integration and financial model.

Source: www.btrc.gov.bd

www.cao.gov.bd

www.mission2011.net.bd

3.4.2.4 Planned Initiatives:

The BTN is planning to establish one resource centre in each district, so that the public access venues can seek support from the resource centre. The resource centers will provide know-how, technical support like hardware and software trouble shooting support. The BTN is working on development of a GIS-based database for public access venues, initially for telecenters, which will help a new entrepreneur or organization to select a new location optimally. This database will also help researcher to get information about the activities of different kinds of public access venues.

BTN signed an MOU with Intel to support at least 5000 entrepreneurs to establish telecenters of different models. Under this MOU an entrepreneur will receive turn-key establishment of a telecenter, technical and operational training and marketing support. The program will start from October, 2008.

A number of government ministries are working to establish public access venues in government infrastructure located across the country. UNDP is working with the government in this regard. The Local Government Support Project under the Ministry of Local Government and Rural Development has taken a decision to establish 30 "Community-e-Centres" in the premises of local government institutions. The project will start in September, 2008. The Ministry of Post and Telecom is working to convert all 8000 post offices across the country into e-post offices and telecenters in private-public partnership.

UN-ESCAP and ADB are working together with Ministry of Science and ICT to establish telecenters in the country.

More information:

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3.5 Economic, Policy & Regulatory Environment

3.5.1 National & Local Economic Environment

Describe the national & local economic environment and how it affects public access to information & communication in the country.

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

The economy of Bangladesh experienced a remarkable GDP growth in last few years which was associated with fair rate of poverty reduction, as was also mentioned earlier. This improvement is expected to increase demand for information services. In the opposiste way, since a vast majority of the population of Bangladesh is still poor, it is very important to make the availability of information services such that the poor use the information services for their livelihoods and help themselves to escape of poverty.

Trends:

Source:

3.5.2 National & Local Policy (legal & regulatory) Environment

Describe salient features of the policy & regulatory framework in the country (and if applicable, locally) that affect delivery and access to information (e.g. censorship, wi-fi bandwidth regulation, etc). What is your assessment of the general trend on this matter?

If appropriate, indicate any specifics that apply to Digital ICT services alone.

sThe national policy environment has become conducive for all types of public access venues, but public library is still missing form the purview of the government. The manifestation of favorable policy is in a number of initiatives taken by the government, mentioned earlier. Wider and cheaper access to mobile network, cheaper Internet connectivity, low cost VoIP create new opportunity for Bangladesh.

Online-payment system, alternative sub-marine cable, review of ICT policy, streamlining coordination of ICT relative activities, action plan with appropriate budgetary allocation for implementation of ICT roadmap and e-Government roadmap, implementation of "quick-win" projects, tax incentive for channeling resources for expansion of network of public access venues, enactment of appropriate Right to Information Act, Licensing of 3G and Wi-max technology, mobilization of USO fund for rolling out network in rural areas and expansion of network of public access venues, designing specialized curriculum for training of manpower required for public access venues- may pave the way for building an inclusive information and knowledge system. Excessive reliance of private sector would aggravate the worsening equity situation in the country. The community libraries and telecenters in non-urban areas show that how crucial they are for ensuring access to technology by underprivileged groups. Overall, there is a growing realization about need to access to information for achieving national aspiration of a country free of poverty, and there is a sincere effort to make the policies more conducive for expansion of infrastructure and creating enabling environment. However, excessive trust on private sector may exclude poor people form the emerging national landscape of public access venues.

Trends:

Not enough space to write

Source: The importance of public access venue will also grow, because still half of the population will rely on public access due to limited affordability of individualized access.

One significant trend in the technology landscape is rapid growth of mobile telecommunication in Bangladesh. It is expected that subscription for mobile telecommunication will grow to 70 million by 2010. The expansion of the mobile network is boosting the market of phone based content, and it is expected that more mobile phone based services are going to be offered in coming days. Already phone-based bulletin board service (cellbazaar), utility bill payment service, banking information services, telemedicine are available. Full-fledged banking transaction is on card. Furthermore, licensing and investment in 3G and Wi-max is going to expand opportunities to offer multimedia content services over the mobile network.

However, the copyright issue has become thorny and may impair growth of public access venues. In January, 2008 the copyright office in Dhaka issued a public notice in daily newspapers stating the extent of punishment for violation of copyright: up to 5 years of jail with financial implications. The notice was supported by software association of the country BASIS. The BASIS identified copyright is a major problem for sluggish growth of the software industry. However, without creating awareness about copyright issues among all stakeholders including the law enforcers, there is a big doubt how much this drive would benefit new economy and drive for building a knowledge society, and, ultimately whose interest would be served. It is to be mentioned here that copy right law was revised twice after enactment in 2000. Now, it comes to the stage of enforcement with the implications of imprisonment. Under the trade related intellectual property rights agreement under the WTO the least developed countries (LDCs) are exempted up to 2013 from copyright obligations. It is not clear, why such an early attempt of crackdown has been taken. The proposition of cost implications forces ICT users and many governments to think about alternative copyright systems.

muyeed.chowdhury@bracnet.net

www.btrc.gov.bd

Raihan A. 2007. Digital Review of Asia Pacific 2007-08, Bangladesh Chapter, Ottawa: Orbicom, 2007

3.5.3 Regional & International Policy (legal & regulatory) Environment

Describe salient features of policy & regulatory framework in the region and internationally that affect the delivery of public access to information & communication in the country. What is your assessment of the general trend on this matter?

If appropriate, indicate any specifics that apply to Digital ICT services alone.

The post-WSIS process is important for the country like Bangladesh for mobilizing resources to expand the network of public access venues for accessing both government services and information for changing the lives of underserved people. Active participation in the global resource mobilization by the government will make a big difference.

The TRIPS agreement will severely affect public access to information before and after 2013, which is a transition year of expiring exemption to Bangladesh, as a member of LDCs, from the obligation of the copyright system. The copyright system in its current form will hamper knowledge exercise in the country of South. It will be a journey towards opposite direction in terms of building knowledge society; because there is no chance that the countries will attain the capacity to comply fully with obligations within 2013.

Trends:

Limited space: see below instead

Source: There is an attempt by volunteers to promote alternative copyright system, particularly by Bangladesh Open Source Network (Bdosn). In an environment of very limited understanding among stakeholders, this effort will take long time to have some result on the ground.

www.bdosn.org

3.6 Collaboration Practices and Opportunities across Venues

Linkages and collaboration between different types of venues was identified as a **strong emerging theme in the preliminary analysis**. Please provide as much detail as possible to help understand existing and potential collaboration opportunities and linkages among and between public access venues, and how they can improve the quality and relevance of information access to underserved communities.

- i. Include reference to existing as well as potential collaboration opportunities.
- ii. If appropriate, indicate any specifics that apply to Digital ICT services alone.

Computer Learning Program, masterminded by Volunteers Association for Bangladesh, and New Jersey implemented by D.Net have been operating in educational institution based centers in 41 districts with 82 venues (computer learning centers, CLCs) since 2004. Every year VAB finances around 20-25 centers. Majority of the centers are now without Internet connection and the centers primarily focuses on basic computer learning of children. D.Net's Pallitathya program is now working to convert them into "Pallitathya Kendra"(Rural Information Centre) adding digital livelihood content "Jeeon". This collaboration makes them more public (means other than children and teachers and community youth, all community groups can come to the centers and get different information) and creates sustainability opportunity. Furthermore, Relief International's ILCs and D.Net's CLCs are now collaborating for adding internet connection to the CLCs and Internet based activities among the school children of different schools. This collaboration enhances learning opportunities and skills of the children.

D.Net's Pallitathya and Teletathya programs collaborate to enhance outreach of the services of the Pallitathya Kendras (rural information centers). The mobile lady, a part of the Teletathya program is attached with the centers and serves the community people at the door steps.

The BTN is going to launch exchange program among the different types of telecenters. Under the program an infomediary of a centre will visit another type of centre and work for a few months. Such program may be extended to other types of venues. The BTN is mapping the existing content and content providing institutions, which will allow public access venues to offer more content based information services.

The collaboration between venue based and non-venue based services may also enhance usability of the public access venues by the community people. For example, integration of e-health program offered by Amader Gram with all public access venues may enhance success of the program, at the same time people may find the venues worth visiting.

Collaboration between government and public access venues can make e-government services more accessible by the disadvantaged people in rural and urban areas.

3.7 Buzz Factor: Public and Government Perceptions about what is “cool”

The “buzz factor”, ie, public and government perceptions about what is “cool” in relation to public access venues, where to invest resources, what places to hang out in, was identified as a **strong emerging theme in the preliminary analysis**. Please provide as much detail as possible to help understand how these perceptions about what is “cool” offer new opportunities or obstacles to strengthening public access information venues in the country.

The government's perception about public access venues largely evolves around private sector initiative. Such perception undermines the role of the government in ensuring "public goods" for underprivileged people. On the other hand, "Internet" is the "cool" factor in public perception in relation to public access venues. Making Internet available in all venues thus is important for success of the public access venues. Children and students find public libraries as a meeting place and they find community libraries are cool for availability of educational CDs.

3.8 Legitimate Uses

The difference between “legitimate” or “non-trivial” uses of information in public access venues was identified as a **strong emerging theme in the preliminary analysis**. For example, uses of social networking spaces (Facebook and similar), blogs, chat, video games, as well as opportunities to download, install and run open source software applications in public access computers poses new challenges to traditional notions of “legitimate” information needs for development, and “trivial” uses of information for development... Please provide as much detail as possible to help understand how local definitions and restrictions based on what is “legitimate” or “non-trivial” information or communication practices offer new opportunities or barriers to public access information venues in the country.

Playing games in public access venues are generally discouraged, mostly urban venues. Video chatting is restricted in many cyber cafes. This is probably due to bandwidth limitation. As bandwidth has become cheaper and 3G and Wi-max become available, such restriction probably will be withdrawn. On the other hand, game downloading is prohibited in many venues. . In libraries users can only download programmes onto computers, then they can take it to pen drive for install on their PC. Users can download music, movies in all venues. In all venues users can create content like web pages, however, capacity is not available everywhere. There is no content filter, social networking sites like

Face book are allowed.

The liberal usage regime provides opportunities to the users to explore varieties of opportunities related to job, education and entertainment.

3.9 Shifting Media Landscape

The ever-changing media landscape and the new opportunities brought about by new media such as mobile phones, SMS, GPS, and even renewed roles for community radio open, was a **strong emerging theme in the preliminary analysis**. Please provide as much detail as possible to help understand how these new technologies and media offer new opportunities or barriers to public access information venues in the country.

3.9.1 Mobile phones

If appropriate, describe salient uses of mobile phones, text messaging, SMS and similar technologies, in relation to public access information venues and information needs of underserved communities.

As the mobile phone users grow rapidly and "race to the bottom" for call rate is observed, all mobile phone operators are seeking opportunities to offer various "value added" services to the consumers. All mobile phone operators now offer 'news services' in collaboration with leading print and electronic media. The news services are now available both in 'voice' and text format. The operators also offers live score update for cricket. The banking institutions now offer account information service for their clients though SMS. Utility bill now can be paid through mobile phone in selected city corporations. Depending on the preparation of the utility service providing institutions, the service will be offered for all areas in the country. Health information service is being offered now two operators. Voice based consultation service is offered by a number of private organizations. Stock trading is going to be introduced very soon in collaboration with two stock exchanges in the country and mobile phone operators. Remittance earning is going to be offered by mobile phone soon. Educational content is also going to be offered through mobile phone. 3G networks will allow users watch television. Community radio is going to be launched very soon as the licensing process is underway. As a whole mobile phone is going to change the use of desktop PCs. Such shifting scenario definitely will influence usage of services in public access venues.

3.9.2 Web 2.0 tools & use

If appropriate, describe any salient uses of Web 2.0 tools among users of ICT in public access venues. (Web 2.0 refers to evolution of web-based communities and hosted services, such as social-networking sites, wikis, blogs and others. [Wikipedia](#)).

Bangla wikipedia (bn.wikipedia.com) is a popular platform for creating Bangla content by volunteers. The journalists use blogs and information portal for sending news to the editor of newspaper, developed with Web2.0 tool like Joomla. Many content portals are now being developed using Web2.0 tools (e.g,www.jeeon.com. www.mission2011.net.bd).

3.9.3 Combination of different media

If appropriate, describe creative ways in which different media are being combined to meet information needs of underserved communities, and the ways they affect public access venues. Different media include community radio & TV, other print media, street theatre, songs, etc.

The use of portable PC like classmate PC and Eee PC of ASUS brings telecenters based services at the door step of the community people. Now, multimedia content is being delivered at the door step of community users with the help of small portable PC. The use of television to show multimedia content attracts children to the venues. The content delivered through websites and CD-ROM is being printed to offer a traditional backup of

the materials. One of such example is "Pallitathya Bulletin" of D.Net which is being published during last 5 years as a complement of the web-based and CD-ROM based content. The traditional songs are being used to promote telecenters. For example, "pot" song, a popular form of story telling in southern district of Khulna and Bagerhat, is being used to inform people about the importance of information and knowledge and services of telecenters. Internet and radio are being combined to offer portability of radio content (www.netbetar.com).

3.9.4 Other shifting media landscape examples

If appropriate, describe other new features and practices in the media landscape that affect public information venues and information needs of underserved communities.

This would be a good place to discuss innovative practices on content creation and production of new messages, media, information and knowledge that are not described elsewhere in this report.

In June, 2008 the government allowed establishment of community radio with provisional licensing for two years. The community radio will be an additional channel for the underserved community. The community radio will be a medium for public access venues to inform about their services and will improve number of visit. Internet based radio is another innovative approach, which can be used for radio content dissemination among the community radio practitioners. One such initiative is www.netbetar.com.

3.10 Health Information Needs

This is an extra contribution to other research on health information needs going on at the University of Washington, based on willing respondents to last two questions on user surveys at the public access venues.

3.10.1 Sources of Health Information

Where are people most successful at locating useful health information for themselves or their family (% of respondents across all venues):

51%	18%	10%	21%
clinic/hospital	friend	health worker	public access venue (library, community center, etc)

Comments: Clinic and hospital (51%) have remained the main sources of health related information to the users . Other reliable sources include family and friends (18 percent) and health workers (10%). Internet facilities at telecenters, cyber café or at other private locations are also found as useful sources by around 21% of the venue users. In addition to the above sources, few people prefer the herbal medicine store and house physician for health information.

Of the different group of venue users, all broad categories (telecenters, cyber café, public library and community library) consistently consider clinic/hospital as the most useful source of health related information. Of all the categories, significantly higher percentages of the public library users found hospital/clinic as their most useful health related information source. It is expected because most of the public libraries in Bangladesh do not offer ICT based information services and only education related information are generally available in these libraries. Among the non-urban users, friends and health workers are important sources of health information. About 38 per cent of telecenters users in urban areas consider internet as useful source for health

information.

Many telecenters offer health consultation using mobile phone based consultation service. For example, D.Net Teletathya (www.teletathya.com.bd). GrameenPhone and Warid telecom offer also mobile phone based health consultation. Grameen Telecom offer telemedicine with the help of video conferencing. Breast cancer screening and treatment is offered by Amader Gram project.

3.10.2 Types of Health Information

What types of health information do they have the most difficulty finding (% of respondents across all venues)?

36%	21%	20%	15%	8%
disease prevention	how to locate healthcare	child health information	remedies/drugs	Other

Comments: People face difficulty with different types of health related information. Disease prevention (36 per cent) and locating right health care centre (21 per cent) have been identified as the most difficult types of health information to find by the users. Other than these, 20 per cent and 15 per cent respondents identified that child health information and remedies/drug related information respectively are most difficult to find. Among total respondents, 8 per cent respondent identified other types of health information (which include health awareness, women health care, health specialist and diagnostic centre with cost) are difficult to find.

4 Venue-Specific Assessments

Complete one full assessment for each type of venue studied in the country.

4.1 Venue # 1: Public Libraries

4.1.1 Overall Venue Assessment

Provide a broad picture of the public access information landscape in this venue, informed by the results of this research.

2 – 3 Paragraphs:

What is your overall assessment of public access information in this type of venue?

Libraries are the most ancient public access information venues in Bangladesh. In this study “public” was defined not as funded by the government rather in terms of access of public or common people to the venues.

The presence of the government in the library landscape thus is the lowest, only 6.63%. On the other hand, NGO presence is 15.20% and presence of the private sector is 78.09%. Out of 1119 libraries only 604 are funded by the government. The statistics shows that the apparent vacuum is filled in by the non-government sector as a whole. The budget allocation for public library system is very low, only BDT 244 million, within a budget of BDT 1000 billion [MOF, 2008].

The average annual number of visit in a public library in urban areas is 3751, on the other hand in non-urban areas 4168. Most of the visitors are regular.

The perception about the affordability of public libraries is not favorable, 33% of urban users mention that the services are costly, in case of non-urban users proportion is 21%. Middle class population is the major users of the services in public libraries both in urban and non-urban areas.

Only a few public libraries offers ICT based services, which are not used efficiently. While use of the Internet is very diversified for cyber cafés and telecenters, the users of Internet in public libraries use it for limited purposes. No one uses any social networking sites, which is surprising, given that all users of ICT facilities are from urban locations. No ICT training is offered in public libraries.

It is noteworthy to mention that only in case of public library there is a flow of new readers in significant way, 27% of the users are first time visitors. The young users of the public libraries find the library as a meeting place. As a public access venue the public libraries are probably more reliable for the parents, as a result the young visitors dominate these venues.

Probably libraries are the venues, which are grossly underutilized in the country. As a public access venue they have acceptability within the community. However, due to inappropriate resources and integration of ICT they are not utilized fully by the users.

Integration of ICTs both at the back and front end would enhance its potential and more young people can turn their attention to these venues. Community libraries are good example for this.

The concentration of poverty is generally high in non-urban areas (as mentioned earlier, in 2005 43.0% of rural people was poor against 28.4% in the urban areas), thus demand for public access will remain high in this part of the country. Despite the availability of alternative media and sources, number of visits is increasing in the public libraries.

There are two policy documents and laws which are related to publication of books, one is National Book Policy and Copyright Act, 2005. However, there is no law or legislation regarding the Library and Information System of the country. Thus, there is no bar in the country to open and operate library.

One interesting comment made by a librarian of a government institution, "We have hype on ICT and we abandoned the library system. Now we do not have either a modern ICT-based information system, neither modern library system."

4.1.2 Access

2 – 3 Paragraphs:

What is your overall assessment of ACCESS ecosystem in this type of venue (physical access, appropriate technology, affordability)?

The library system of Bangladesh consists of three major groups: public library, academic library and specialized library. There are total 1119 public libraries, of which 604 are funded by the government. Other 763 libraries are funded by the government but public in the sense that they are for specific groups of users. Thus, out of 20619 libraries, so far identified, only 1367 are fully funded by the government. However, Academic libraries (except university libraries) are funded by the government for procurement of books on an annual basis.

There is one central public library in Dhaka. The government also runs 21 regional public libraries, 64 district libraries and 514 Upazila public libraries. There are four national libraries, which are also run by the government: National Library and Archive, National Health Library and Documentation Centre, National Science Library, National Agriculture Library and Documentation Centre. Various non-government initiatives run another 500 public libraries. Besides, there are 15 public libraries, which are run by various foreign mission and institutions. For example, USIS Library and British Council Library, which are open for all. Although in the BANBEIS category they are mentioned as specialized libraries, for this study it is included in the public library group due to their public nature. Because, other specialized libraries have restricted access for the public. From the perspective of access, there is another important stream of library system in Bangladesh, which is called community library, all of which run by NGOs and community contribution jointly or private individual's support. The number of such community libraries is 2230. These libraries are also public in the sense that people have unrestricted access there.

The second mainstream in the library system of Bangladesh is academic library. There are 16620 academic libraries in the country. Number of fully funded academic libraries by the government is 743. The libraries hosted in private educational institutions (except universities) are partially funded by the government for procurement of books.

There are 665 specialized libraries, of which 535 libraries are run by NGOs, 95 run by various research institutions, and 20 libraries run by government Ministries, departments and corporations.

In a country of 140 million of population there are only 1119 public libraries. Of which 604 are run by the government, 500 by non-government organizations and individuals, and 15 are run by the foreign missions and institutions. In terms of urban-non-urban distribution, libraries are not adequate at all. More importantly these libraries are not up-to-date with the development of technology. The level of automation in the urban public libraries is only 10.13%, whereas non-urban libraries did not receive any touch of automation. The replenishment of the resources is also not systematic, the investigation by the research team revealed. Access to the Internet is present only in 40 libraries so far.

There are many innovative non-government interventions. Particularly, an initiative by Bishwa Shahitya Kendra to run a system of libraries on wheel (on vehicle), which serves 41 districts of the country. There is another initiative of school and library on the boat. These initiative shows that the potential is there to serve the country with information and knowledge.

One thing is also noteworthy to mention here that despite having a network of 20619 libraries, only 16.24% is for public in the sense that the access in these venues is unrestricted. Others are either only for a specialized group or have some access with special permission.

4.1.2.1 Physical Access

Describe how accessible this venue is to various population segments, differentiating by applicable Equity of Service variables (Form 1c), especially the differences between urban and non-urban settings.

If appropriate, indicate any specifics that apply to Digital ICT services alone.

All public libraries offer mainly two broad categories of services: reading books within the premise of libraries, and lending books and other materials.

Middle class population is the major users of the services in public libraries both in urban and non-urban areas. Thus, low income group is deprived of access to these facilities. Fees for Internet access is only 30¢- 45¢ per hour, however, such fees in other venues are lower. Unlike cyber cafes and telecenters, public libraries receive many young users. However, this share is lower than in community libraries. This is particularly true for non-urban users.

The survey identified a number of barriers for accessing public libraries by the users. The barriers identified by the urban general users are: cost (33%), inadequate content (22%), inadequate services (19%), location (2%), hours of operation (3%), lack of adequate training (18%), inappropriate language of content (3%). For the urban general users the most difficult issue is cost. The presence of ICT is very limited to meet the needs of the users. Thus, in general the capacity to meet the demand of the community both in terms of resources' relevance and physical capacity of the venues to provide ICT-based services are limited.

Capacity of staff in government funded libraries is better than in non-government libraries. The staff dealing with ICTs have specialized training for library software management and general computer training. However, there is a severe dearth of knowledge about the advancement in

global library management domain.

4.1.2.2 Appropriate Technology & Services

Describe how appropriate the technologies, services and information offered in this venue are to the population, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

The public libraries are located in brick and mortar building with adequate space of readers. There are separate rooms for librarian and other staff. All libraries have separate room for preservation of resource materials on shelves. Majority of the libraries have manual catalogue system (box). About 50 libraries have computerized catalogue system. UNECO library software is used in these libraries. More than 100 libraries have computerized readers service system.

All public libraries offer mainly two broad categories of services: reading within the premise of the libraries, and lending of books and other resource materials. All libraries also offer catalogue search. Twenty libraries have search facilities on computer. Online catalogue search is available only in 10 libraries. Four national libraries and 64 district libraries offer interlibrary loan service. The resource materials in libraries include books, journals, periodicals, news papers, micro film, CDs. However, microfilms are available only in 10 libraries. CDs are available in 20 libraries. CDs are not for lending, they are to be used within the libraries. Only 5 libraries offer CDs for taking it home. Only 10% of the libraries offer text book and reference materials for institutional education purpose. Others offer general resource materials by various subjects. Fifty percent of the libraries follow decimal coding system for catalogue.

In 10.23% of urban public libraries there is ICT facilities. Importantly, 90% of them are for catalogue and readers management. The rest 10% public libraries offer ICT-based services for the users. These libraries have on average 4 PCs. The standard sets of equipments in these libraries are: web cam, printer, photocopier, Television etc. All these libraries have Internet access.

While use of the Internet is very diversified for cyber cafés and telecenters, the users of Internet in public libraries use it for limited purposes. No one use any social networking sites, which is surprising, given that all users of ICT facilities are from urban locations. The major usage of the ICT in the public libraries varies in urban and non-urban locations. In urban public libraries Internet browsing (40%), emailing (30%) and education CDs (30%) are the only use of the Internet.

The Internet browsing was done for the following information: education (25), health (25%), news (25%), entertainment (15%), and job search (10%). Users watch television in a few public libraries.

4.1.2.3 Affordability

Describe how affordable the technologies and services offered in this venue are to the population, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

All libraries register the users and charge a annual membership fee. There is also life membership system. The perception about the affordability of public libraries is not favorable, 33% of urban users mention that the services are costly, in case of non-urban users this share is 21%. Middle class population is the major users of the services in public libraries both in urban and non-urban areas. In case of general users in urban areas, 69% are from middle class, and 11% from low income group. Share of high income group is 21%. On the other hand, for ICT use, 75% are from middle class and 20% are from low income group. In non-urban areas, there is only general services, no ICT based services. Here, 40% of the users are from low income group and the rest 60% of the users are from middle class. It is interesting to see that there are no users from high income group. Users watch television in a few libraries which is free of cost.

4.1.2.4 Fees for Services

What fees or other requirements exist in order to access and use the information in the venues? (registration, user fees, restrictions to certain populations)

If there are fees: What do these fees buy?

All libraries have a system of registration, with a fee. The registration fee varies from institution to institution. In urban public libraries, registration fee is between BDT 100- 1000 (USD 1.5 - 15) for one year. Life membership fee varies between BDT 500 - 3000 (USD 7.5 - 44). For borrowing a fixed number of book/CD, no extra fee is charged. However for photocopy, there is extra charge.

As Internet use is the most common service in all public access information venues, thus fees for Internet browsing is put in the boxes below.

Indicate amount in local currency BDT 20-30

Equivalent in US Dollars: 30¢- 45¢

Date of estimate August 12, 2008

and local currency name Taka

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Explain any salient differences in the services offered in different regions, sizes or other variables of significance:

The cost of Internet browsing in other venues is lower than in public libraries.

4.1.2.5 Geographic Distribution

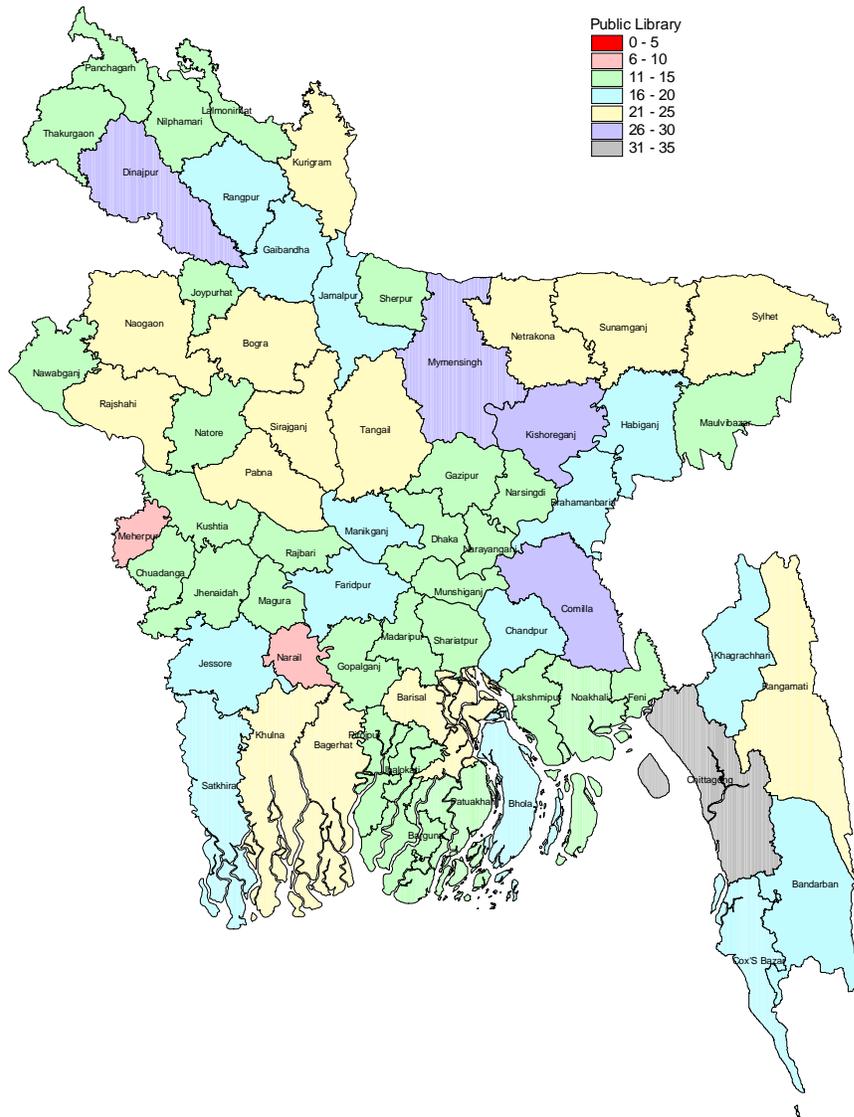
What is the distribution of the venues in terms of their geographic location?

Complement any details not already included in section 2.1: Venue Selection.

Geographic distribution of the 1119 public libraries is concentrated mainly in urban areas. Every district has at least 5 public libraries, either government owned or owned by non-government institutions. All libraries hosted by foreign missions are located in Dhaka city and other two city corporations. Each of the sub-districts (Upazilla) has at least two libraries, one funded by the government and another one funded by non-government source.

4.1.2.5.1 Map

If available, insert a map that displays the geographic distribution of this type of venue in the country (expand to the size you need).



Description of map:

The map reveals that the highest concentration of public libraries is in Chittagong district, one of the metropolitan cities in the country. The second highest concentration of public libraries is in Comilla, Kishoregonj, Mymensingh and Dinajpur districts. In each of these districts, there are 26-30 public libraries.

4.1.2.6 Other Factors affecting Access

Other factors that affect equitable access to public information in this type of venue, not covered above?

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Besides the factors affecting access explained earlier, there are a unnumber of other factors affecting access. The users complain about resource materials, which are not replenished regularly and with relevant resources. The service quality of the librarians is up to the expectation of 18% of the users. The number of services offered by the public libraries is also limited. Location and hours of operation was not a problem for them. In case of urban ICT users the lack of ICT training was identified as major problem (35%). The other problems are: inadequate content (18%), inadequate service (17%), hours of operation ((9%), cost (8%), inappropriate language of the content (6%), and location (6%).

On the other hand for non-urban general users, major problem is location (for 38% of the users), followed by inadequate content (25%), cost (21%), lack of training of the librarians (14%), and inadequate service (5%).

4.1.3 Capacity & Relevance

2 – 3 Paragraphs:

What is your overall assessment of CAPACITY ecosystem in this type of venue (human capacity, locally relevant content, integration into daily routines, socio-cultural factors, trust in technology, social appropriation of technology)?

The survey on barriers shows that lack of appropriate resources and inadequate services are two major problem of the public libraries. The presence of ICT is very limited to meet the needs of the users. Thus, in general the capacity to meet the demand of the community both in terms of resources' relevance and physical capacity of the venues to provide ICT-based services are limited.

4.1.3.1 Staff Size

How many people work in a typical facility for this type of venue? (full time-equivalent employees or contractors; describe any significant variations; i.e., large, medium and small libraries in the country)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

In each of the government funded libraries there are at least two staffs. In large libraries (except national libraries), maximum number of staffs is 15. However, there is only one staff in non-government libraries. In libraries, where ICT facilities are available there is one more staff to handle the users.

4.1.3.2 Staff Training

What is the overall capacity of the staff (ie, librarians, telecentres operators) to help users access and use public access to information & communication services offered in this venue? Differentiate by applicable Equity of Service variables (Form 1c).

- (i) If appropriate, indicate any specifics that apply to Digital ICT services alone.
- (ii) For Public Libraries, indicate if Library School training is available and/or required for librarians.

In the government run public libraries, all librarians have training on library management. However, in non-government libraries majority of the staff lack library management training. The staff dealing with ICTs have special training on library software management and general computer learning. However, there is a severe dearth of knowledge about the advancement in global library management domain.

4.1.3.3 Services Offered

What kind of services does this type of venue offer to the public? (ie, access to books, magazines; meeting & conference rooms; audio/video programs, computers, internet, other). Include Digital ICT services if offered.

<i>Services Offered</i>	<i>Comments</i>
1. Resource access within library and reading	
2. Lending of resources	
3. Catalogue search	
4. Off-line content browsing	education
5. Internet browsing	Educational opportunities, personal, news search, entertainment, health information, information about government services, job information, getting results of public examinations, submission of job application
6. Email	exchanging letters between relatives, sending news to newspaper, sending admission request
7. Photocopy	
8. Micro film reading	
9. Video watching	
10.	

Explain any salient differences in the services offered in different regions, sizes or other variables of significance:

describe

4.1.3.4 Programs for Underserved Communities

Describe if this venue has programs specifically intended to reach underserved communities, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

The libraries do not have any special program for underserved communities.

4.1.3.5 Relevant Content

What type of locally relevant content is available? What else is needed? Who is doing it?

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Available Content:

Most common resources found in all public libraries are in the following categories:

1. Agriculture
2. Anthropology
3. Development Studies
4. Education
5. Entrepreneurship
6. Environment
7. Finance & Banking
8. Fine Arts
9. General books
10. Globalization
11. Health
12. History
13. Human Development
14. Human Resource
15. Law
16. Literature
17. Macroeconomics

18. Management
19. Philosophy
20. Policy & Reform
20. Political Economy
21. Political Issues
22. Political Science
21. Population
22. Poverty Alleviation
23. Religion
24. Sociology

Majority of the resource categories are in book form. Urban libraries located in divisional cities are populated with books mainly in English language.

The CDs are available for TOEFL, GRE, IELTS, GCSE and some learning materials for children on space, natural science, learning of language. These CDs are in English language.

Other Content Needed:

The users identified that they need resources in the following categories:

1. Industry
2. Information & Communication Technology
3. International Relations and Strategic Issues
4. Investment
5. Journalism
6. Land Administration
7. Micro Credit
8. Migration
9. Natural Resources
10. Natural Science
11. Pharmacology

- 12. Technology
- 13. Telecommunication
- 14. Transport
- 15. Urbanization

Local Initiatives to build needed content:

The most notable initiative is www.bdresearch.org.bd, which pulls resources from national research institutions. The portal has total 1500 full papers on 88 categories. Most of the papers are downloadable free of cost . However, a few of them are downloadable against a fee. The payment is possible to made through pre-paid card, as online payment system is not available yet. The majority of the resources are in English, a few only in Bangla language.

www.sdnbd.org also offers resources (papers and CDs) for researchers, development activists and students. It has a WAP version. Major research institutions like Centre for Policy Dialogue (CPD, www.cpd.org.bd) and Bangladesh Institute of Development Studies (BIDS, www.bids-bd.org) also have very rich websites with downloadable papers.

Source: Interview of Librarians

www.bdresearch.org.bd

www.cpd.org.bd

www.bids-bd.org

4.1.3.6 Services & Information Available in Local Languages

Describe the availability of services and contents relevant to human development that are available in **local languages** in this type of venue? (i.e., info on health, education, government services, etc)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

All non-urban and urban libraries, located in district and Upazilla towns are populated mainly with books and periodicals in Bangla language. Mainly fiction and literature are available in Bangla language in the public libraries. Reference books, books on politics, health, and indigenous knowledge are also available. Importantly, all district libraries preserve rare manuscript of Bangla history and culture. Unfortunately, due to lack of proper care these invaluable resources are being destroyed.

4.1.3.7 Types of Uses

What do people USE the venues for (most frequent kinds of information & services people seek in them, activities they carry out in them)?

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

Refer to section 3.4 Charts: Information Needs and complement here as needed:

As mentioned earlier the public libraries offer mainly two broad categories of service: reading within the premise of the libraries, and lending of books and other resource materials. All libraries also offer catalogue search. In some libraries there are search facilities on computer, online catalogue search facilities, microfilms, CDs. In only 10.23% of urban public libraries there is ICT facilities.

The major usage of the ICT in the public libraries varies in urban and non-urban locations. In urban public libraries Internet browsing (40%), emailing (30%) and education CDs (30%) are the only use of the Internet. No chat , blog and social networking and phone/video conferencing have been recorded.

The Internet browsing was done for the following information: education (25), health (25%), news (25%), entertainment (15%), and job search (10%). Users watch television in a few public libraries.

As will be detailed later, in the urban public libraries majority of the users are males while the in the rural areas close to half of the users are female. While in the urban public libraries, middle income groups are major users, in the non-urban areas, in the rural areas a good proportion are from low income group. Public libraries also attract many young users which is unlikely in cyber cafes and telecentres.

4.1.3.8 Number, Type and Frequency of Users

Refer to section 3.4 Charts: Information Needs **Error! Not a valid result for table..** Complement here as needed:

Usage pattern of the public libraries varies for urban and non-urban libraries and also for general usage and ICT usage. In urban public libraries 78% of the users are male, whereas share of female users is only 22%. In case of ICT use male-female ratio is 9:1. On the other hand, for non-urban public libraries, 55% users are male and 45% users are female. It is to be mentioned that there is no ICT use in non-urban public libraries.

In terms of equity of use, the research finds that urban public libraries are predominantly (69%) used by middle income people, only 11% of the users come from low income group. This is for general use, in case of ICT use, middle income group is 75% and low income group is 20%. For non-urban users, low income group comprises 40% of the users. No users come from high income group.

Unlike cyber cafes and telecenters, public libraries receive many young users. This is particularly true for non-urban users. Two-third of the users (67%) of the public libraries in non-urban areas belong to age group of 14 years and below. The next one-fourth are from the age group 15-18 years. Very few are from age group above 18 years. This pattern of visits open an opportunity to introduce ICT based services for young users, as they do not visit cyber cafes and telecenters. Urban users are a bit dispersed, 51% of the users are from age group 19-25 years.

As the youth group dominates the users of the public libraries, for non-urban public libraries 87% of the users are with education of elementary level, the rest of the users are with education level

up to high school. For urban libraries, 68% belongs to education level up to high school level.

4.1.3.9 Users Capacity to use information and services offered

What is the overall capacity of the users to take advantage of public access to information & communication resources, differentiating by applicable Equity of Service variables (Form 1c)?

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

Users are demanding in terms of resources, which has been reflected in their dissatisfaction with inadequacy of appropriate resources (25% of the users are not satisfied). In terms of using printed resources, they are quite capable.

Only a few public libraries offer ICT based services, which are not used efficiently. While use of the Internet is very diversified for cyber cafés and telecenters, the users of Internet in public libraries use it for limited purposes. No one use any social networking sites, which is surprising, given that all users of ICT facilities are from urban locations.

4.1.3.10 Training Courses for Users

Describe training courses offered to the public at this venue, and if they offer some kind of testing and certification.

Training courses: No training course is offered in public libraries, with a few exceptions.

ICT specific training courses: No ICT training is offered in public libraries.

4.1.3.11 Integration into daily routines

How easy is it for users to integrate the information and services offered in this type of venue into their daily lives? (offer concrete solutions to their needs and problems, make it easier to solve them at this venue than in other places)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

In non-urban areas, the use of public library came into daily routine of 23% of the users, who visit the library almost everyday, 37% visit once in a week. It is mention worthy that only in case of public library there is a flow of new readers in significant way, 27% of the users are first time visitors. In case of urban libraries, 82% are regular users (including daily and weekly visit). Young children find adequate books to quench their thirst of fiction. Students also find useful resources in urban areas.

4.1.3.12 Users Perceptions about the Venue

What is the general perception or opinion of the population about the venue (not necessarily its specific services, but the venue itself: ie, what do people generally think about libraries? Are they places that are “cool” or “only for elites” etc?), differentiating by applicable Equity of Service variables (Form 1c)? This includes perception by people who do not use the venue...

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

As the places of recreation are limited the young visitors find it as a place of meeting with friends

and collect new books to read. Visit from low income group is relatively low, which is a cause of investigation and intervention.

The users of the venues without ICT facilities love to get Internet in their libraries. The librarians opined that the library culture is coming back due to various national level campaign. Particularly they mentioned about the book reading competition launched by Bishwa Shahitya Kendra, the organization running library on the wheels.

4.1.3.13 Social Appropriation of Information and Generation of New Knowledge

What activities, products and services are users undertaking that exhibit new levels of social appropriation of technologies and generation of knowledge? For example, how are users generating and disseminating new knowledge, products and services through their use of this venue? (see category 13 in Real Access Framework for Social Appropriation of Technology).

If relevant, indicate any specifics that apply to Digital ICT services alone.

In urban public libraries, where ICT facilities are available, users avail them for education purpose. However, the libraries are not rich enough for conducting research. Majority of the books are of general categories. As a result, the libraries are used mainly for getting reference materials for education and fiction. Probably the most important use of the venues is social networking of the middle class youth.

ICTs are not used effectively for knowledge search and generation purpose, as they are rarely available for the public.

4.1.3.14 Trust, Safety & Privacy

What is the general perception or opinion of the population about the safety, security and privacy (TRUST) of the information and services offered in this venue?

As a public access venue the public libraries are probably more reliable for the parents, as a result the young visitors dominate these venues.

The use of ICT is relatively safe for strict control of use. The venues are generally not located in the market place, as a result they are more safe for female users.

4.1.3.15 Gaps and Opportunities in information & services offered

What other information gaps & opportunities exist, which are not being met? (other information / services people need that are not being met there and could be offered, especially through Digital ICT services)

Probably libraries are the venues, which are grossly underutilized in the country. As a public access venue they have acceptability within the community. However, due to inappropriate resources and integration of ICT they are not utilized fully by the users. Integration of ICTs both at the back and front end would enhance its potential and more young people can turn their attention to these venues. Community libraries are good example for this.

The public libraries are the venues, which can play a role in ensuring equitable access for the

society, as the prime motive of the libraries is not profit making. Replenishment of resources based on users' demand could make it a vibrant social institution.

4.1.4 Enabling Environment

2 – 3 Paragraphs:

What is your overall assessment of the ENVIRONMENT ecosystem in this type of venue (local economy, national economy, legal and regulatory framework, political will & public support, regional and international context)?

The local administration, where the venues are present, do not pay any attention to improve these venues and convert them into a vibrant social institution. There are a few excellent district libraries, which are largely driven by the passion of a few persons in the local administration.

4.1.4.1 Local & National Economy

Describe the local & national economic environment and how it affects public access to information & communication in this type of venue (refer to & complement economic summary in country assessment, section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

The concentration of poverty is generally high in non-urban areas (as mentioned earlier, in the rural area, 43% people were poor while in the urban areasthe proporiton was 28.4% in 2005), thus demand for public access will remain high in this part of the country. Despite the availability of alternative media and sources, number of visits is increasing in the public libraries.

The government is spending every year USD 3 billion in various development programs. However, no resources have been allocated for restructuring and refurbishing the library system of the country.

4.1.4.2 Legal & Regulatory Framework

Describe the legal and regulatory framework and how it affects public access to information & communication in this type of venue (refer to & complement economic summary in country assessment, section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

There are two policy documents and laws which are related to publication of books, one is National Book Policy and Copyright Act, 2005. However, there is no law or legislation regarding the Library and Information System of the country. Thus, there is no bar in the country to open and operate library.

4.1.4.3 Political Will & Public Support

What is the level of political will and public support for this type of venue? (refer to & complement section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

The attention towards development and modernization of library system for youth is not visible.

There is no visible program for automation of libraries. Some initiative has been taken for the National Library and Archives. However, libraries across the country are in moribund situation.

Resource can be mobilized from national budget, donor agencies, International and national corporate bodies. The reform in taxation law can promote private sector to invest in modernization of library system. Promotion of corporate social responsibility in terms of community relationship can also generate resources for expansion of library network and its modernization. Although libraries in academic institutions and specialized libraries are in the purview of this research, an attempt to open them for general public significantly improve public access to information situation in the country.

4.1.4.4 Organization and Networking

Describe if the facilities in this type of venue organized in any network, association or other collective body? (ie, national public library system, telecentre franchise or network, etc)?

The libraries in Bangladesh are organized through an association called "Bangladesh Association of Librarians, Information Scientists and Documentalists" (BALID). It is a non-political and completely professional association. Some of the Bangladeshi young professionals thought to establish an association to develop the libraries and its professionals. As a result "Bangladesh Young Librarians, Information Scientists and Documentalists (BAYLID)" was founded on 23rd January 1986. A few years later the name was changed as "Bangladesh Association of Librarian, Information Scientists and Documentalists (BALID)". The website of BALID is: www.balid.org.

4.1.4.5 Partnerships

Describe notable public-private partnerships in support of this type of venue.
If appropriate, indicate any specifics that apply to Digital ICT services alone.

BLID is working for promoting library movement in Bangladesh. For rejuvenation library system in the country the association is working for formation of a library commission. At present there is no separate legislation of library system. The association is lobbying for such legislation.

4.1.4.6 Other Environment Factors

Other factors in the environment that affect access and use of information in this kind of venue, not covered above?

One interesting comment made by a librarian of a government institution, "We have hype on ICT and we abandoned the library system. Now we do not have either a modern ICT-based information system, neither modern libraries." This is a very important comment, which shows that significant political will be needed for revitalization of the library system, as it is seen that the government is switching its attention towards telecenters. The whole idea is to create an information and knowledge system for the citizens. It is always better to focus on existing infrastructure rather than reinvesting in new infrastructure.

4.1.5 For Publicly Funded Venues only: Revenue Streams

This section is meant specifically for publicly-funded venues (public libraries, national connectivity programs, etc).

4.1.5.1 Budget

What is the total budget for this public access venue system (applies especially for libraries, answer for other venues if applicable and if available)?

Total Budget for Fiscal Year

Local currency name amount (local currency)

Approx. equivalent in USD based on exchange rate of on date .

4.1.5.2 Relative size of budget

How large (or small) is this budget in relation to other funding streams? (this is a way to show, in financial terms, how much the government cares about information and public access as compared to a variety of other issues in the country).

Relative Size of Budget for same year	Total budget (local currency)	Comments
Total national budget	1000	in Billion
Education	128	in Billion
Health	89	in Billion
Public Libraries	244	in Million

Other Comments:

The exact figure for allocation to public libraries was not possible to extract from the public document. However, a high official in National Library and Archives mentioned that around BDT 244 million is spent for the public libraries.

4.1.5.3 Sources of funding

What are the sources of funding for this public access venue system?

Sources of funding:	Approximate % of total budget	Comments
Government sources:	97	
International donors:	0	
National donors:	0	

User fees / services:	3
Other (name)	
Other (name)	
Other (name)	

Other Comments:

The expenditures come from revenue budget.

4.1.5.4 Paths and Flows of resources

How do resources get allocated and disbursed to the actual venues? For the principal funders, and especially for the public sources, what is the flow of funds? How are the funds raised (what tax stream), what path do the tax streams flow before they get to the specific venues? Who makes decisions about this funding?

The resources are allocated based on allocation of the previous years, with some increment. The Ministry of Cultural Affairs makes the estimate and sends to Finance Division of the Ministry of Finance. The Finance Division makes the final allocation. The fund then goes to Ministry of Cultural Affairs from the Treasury. The Ministry sends it to National Library and Archives, which is the apex government institution dealing with all public libraries. The National Library then sends fund to individual venues.

4.1.5.5 Fees and Cost Recovery

Describe if there are user fees or any other type of cost recovery. How does it affect service delivery and usage?

The fee income is very negligible in terms of contribution to cost recovery. The poor allocation of resources does allow replenishment of resources in the public library system.

4.1.5.6 Cost Categories

What are the main cost categories in the operation of this kind of venue? (% of total annual budget)
If appropriate, indicate any specifics that apply to Digital ICT services alone.

Cost Categories for Operation:	Approximate % of total budget	Comments
Staff (salaries, benefits)	62	
Building Infrastructure	12	
Utilities	5	
Staff Training	0	
Computers / Technology	0	
Procurement of Resources	21	

other (name)

other (name)

other (name)

other (name)

other (name)

other (name)

Total

100%

Other Comments:

4.1.5.7 Recent changes and future trends

Describe any recent changes and anticipated future trends in the funding and revenue streams for this type of venue in the country. Have funding levels risen or decreased dramatically over the past few years? What is the outlook for the foreseeable future?

The funding of these venues are routine and there is no plan for changing the situation till date.

4.1.6 Case Example for Public Libraries

Provide a short descriptions and commentary for each type of venue, offering a realistic sense of what the venue looks and feels like in its day to day operation, the kind of people who visit, and the kind of services they receive. Also, the case example indicates what makes the case unique or what features are commonly shared with other venues. A photo and short quotes will make it even more real.

Jessore Institute Public Library

Jessore Institute Public library is an oldest venue in the country, which is established in 1851 and located in the central of Jessore district town. The library runs diversified activities. Different professionals gather for reading books, magazines, newspapers, entertainment, internet browsing and for seeking other required information. External appearance of the venue is attractive and welcoming. Current book collection is about 80 thousands. Different types of books (educational, entertainment, novel, biography etc.), magazines, and newspapers are available in the library. Encyclopedia, reference books on TOEFL, GRE, SAT etc. are also available there.

There are five separate wings:

Library wing: Operation hour of this wing is 1400 to 2100 hrs. This wing is open every day (except government holiday).

Sports wing: Operation hour of this wing is 1700 to 2400 hrs. This wing is open every day (except government holiday).

Cultural wing: Operation hour of this wing is 1700 to 2400 hrs. This wing is open every day (except government holiday).

General wing: This wing deals the administrative issues. Operation hour of this wing is 1400 to 2100 hrs. This wing is closed in Friday and in government holidays.

Primary school: Operation hour is 800 to 1400 hrs. Primary school is closed in Friday and in government holidays.

There are several membership systems for library wing:

General membership: Adult can be a general member by paying BDT 235. Monthly fee for general member is BDT 10.

Children membership: Age between 5 to 16 years, can be a member by paying BDT 15 during registration. After 16 years their membership as children will be terminated and the library authority refunds the initially paid registration fee.

Life membership: Adult can be a life member by paying total BDT 2730.

Donor membership: Adult can be a donor member by paying total BDT 5235. After the death of a male member, his spouse will get the same membership facilities without paying any fees.

Membership for other wing: Membership fees for other wings are BDT. 230 during registration and monthly fee BDT. 5.

ICT facilities for users are available in this library. There are separate corner to provide ICT facilities and relevant books on ICTs and language learning. It is basically named 'American Corner Jessore' supported by US Embassy. It provides information services to the Jessore community on American history, culture, society, literature, art, government, politics, education and commercial opportunities. In order to use the resources and facilities of the corner, users must purchase a membership card (BDT 200/year). There are 3 Computers with CD ROM, 2 televisions, photocopy machine, printer, audio cassette player and VCR. Computers are connected with broadband internet. 2 computers are open for users and 1 for using administrative purpose. A collection of several volumes of reference books and video cassettes are available for use. Videos include Air force one and America's National parks, National geography, sports etc.

Users visit the American corner for email and internet browsing. Users generally browse internet for university information, admission result and job information. Peoples don't use this corner for chatting, blogging, social networking, e-governance services, games etc. Users cannot download and install programs onto computers. They cannot create content and can not browse restricted site. According to the users, the environment of the venue is friendly. Internet speed is good, availability of variety of resources in a single venue; availability of English language learning materials brings the users satisfaction.

On average, 150-200 users daily visit the Jessore Institute Public Library for different

purposes. At a time, daily 50-70 people use this venue. Male users dominate in the venue. The library has around 3500 members including general, life and donor members. Staffs in the venue are knowledgeable, friendly and enthusiastic. Managers and staffs of the venue support users and they are cooperative enough. They have expertise on library management. Integration of different facilities like reading, internet browsing, entertainment, cultural exhibition etc. made the venue effective to the users. The users are satisfied with the wide space in the reading rooms. Users are also satisfied for well behavior of library staffs and for easily accessible location of the venue. Other people (petty businessmen) can use open premises of the library for their self business like body weight measurement, selling nut, toys, food items etc.

Lack of manpower, particularly skilled manpower is a challenge to operate the library more efficiently. No equipment is available to clean the dust of books; that is why most of the books are being damaged by insects. Library staff cannot convince the authority to procure required equipments for this. Maintenance and archiving of old books are also challenging due to lack of initiative to adopt the modern library management system. They maintain the catalogue manually.

Jessore Institute Public Library is probably one of the few venues, where there are community level activities other than library services alone. ICT facilities are also state of the art of the library. This venue can be as a whole an example for other public libraries in the country outside Dhaka.

4.2 Venue # 2: Community Library

4.2.1 Overall Venue Assessment

Provide a broad picture of the public access information landscape in this venue, informed by the results of this research.

2 – 3 Paragraphs:

What is your overall assessment of public access information in this type of venue?

Community Library is a sub-system of public library system in the country. Due to some distinctions, this category of libraries has been treated separately in this study. Three distinctive features of this type of libraries are:

- a. This is fully funded by non-government organizations and community contribution. Some libraries are funded by individual's donation as philanthropy.
- b. ICT presence in this kind of libraries is more significant than in public libraries
- c. These libraries are not only the places of reading and borrowing of books, but also places for community activism.

Contrary to the public libraries, these venues are more vibrant and useful to the communities and some sort of alternative to the failure of public library system. The community libraries are more activity driven rather service driven. However, as a library they also provide library services to the children, teachers and community users. The community libraries have outreach program, a tri-cycle van goes door to door with books for lending to community people. Such outreach helps women and elderly people, who can not visit the library. The outreach is probably one of the reasons for high turn out. The combination of activities and services make the venues more attractive to the communities. Location of the venues within the educational institutions has both positive and negative side. The positive side is that people trust these venues as a safe palace for their children. The negative side is that community participation is possible only after school hours. The introduction of mobile library also plays a role in better outreach. Presence of female librarian also promotes female visitors, particularly in non-urban areas.

The costs of the community libraries are affordable to the community people. None of the users in community libraries identified cost as barrier for accessing the libraries. Fees for Internet browsing is the lowest in these libraries. The services and activities mentioned above are highly relevance and attract target audience. The use of computer for watching CD is the most "cool" aspect for the users of non-urban community libraries. For urban users most cool aspect is "Internet browsing". Integration of ICT for mainstream learning purpose is probably the biggest success of these venues.

One weakness of the community libraries is that the training capacity is not adequate and there is no certification system. The thinking in these venues are still around PC, the power of mobile phone is not yet thought, which could add services provided by the "mobile lady" through telecenters. As a whole, one can easily identify that there is a disconnect among the people of four types of venues, which does not allow copy the best

things in each of them for moving towards social appropriation of technology.

In BRAC operated libraries, at least 20% members of mobile library services are physically handicapped. The model of BRAC run community libraries is very innovative, which ensures community commitment. The initial resources are pooled from the community, only then BRAC invest in set up of a library.

The main success of the community libraries is that they serve mainly poor segment of the society, similar to the case of non-urban telecenters.

4.2.2 Access

2 – 3 Paragraphs:

What is your overall assessment of ACCESS ecosystem in this type of venue (physical access, appropriate technology, affordability)?

The position of community libraries in the public access information landscape in terms of number is first. All the libraries are funded by non-government sources. It is important to note that 63% of these venues are located in non-urban areas. The geographical concentration of the venues is generally in the poorest areas, except for Barisal division (0.4%). Such distribution plays a role in ensuring equity in access to public access venues.

The number of visit to these venues is higher than public libraries and telecenters. The annual average number of visitors to non-urban venues is 8070 and 6113 in urban venues. The ICT penetration to these venues is also higher than in public libraries, 36% and 35% in urban and non-urban venues respectively. However, in terms of ICT penetration it stands at second position after telecenters.

The costs of the community libraries are affordable to the community people. None of the users in community libraries identified cost as barrier for accessing the libraries. Fees are the lowest among all venues.

4.2.2.1 Physical Access

Describe how accessible this venue is to various population segments, differentiating by applicable Equity of Service variables (Form 1c), especially the differences between urban and non-urban settings.

If appropriate, indicate any specifics that apply to Digital ICT services alone.

There are 2230 community libraries in the country, of which 1800 are run jointly by Bangladesh Rural Advancement Committee (BRAC) and the 130 are run by other smaller organizations. Another 300 are operated by local community based organizations. These libraries are supported by community people and individual philanthropists. The venues of BRAC supported libraries are located in educational institutions, which ensures maximization of use of facilities both by the school going children and community people. The community libraries have outreach program to reach the users at their households. Such outreach helps women and elderly people, who can not visit the library.

The gender balance in visiting community libraries is similar to the visits in telecenters for non-

urban libraries. Visit of the youngest age group is the highest in community libraries for both urban and non-urban areas and general use and ICT use. Only non-urban public libraries compete with this figure.

4.2.2.2 Appropriate Technology & Services

Describe how appropriate the technologies, services and information offered in this venue are to the population, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

A typical community library is located in a building with concrete roof or tin-shaded roof. Generally there are two rooms, one room for library and another one for various activities. The library services in these venues are provided manually. There are shelves for books and other resource materials. A number of tables are available for readers. Maximum 40 persons can sit at a time for reading books. The community libraries have outreach program, a tri-cycle van goes door to door with books for lending to community people. Such outreach helps women and elderly people, who can not visit the library. The outreach is probably one of the reasons for high turn out.

Computers are available in 1000 community libraries. At least one and maximum 10 computers are available in these venues. However, internet is available only in 10% of the venues. Total 30 venues have N-computing system, provided by AMD, where one CPU runs for all computers reducing cost of operation.

The primary use of these ICT facilities is ICT training and watching educational CDs by children. The Internet is used for various information search. The activities of a community library are targeted towards various user groups. Students of each class visit the library following a schedule. A school teacher discusses headlines of a daily newspaper. The librarian presents biography of eminent personalities. The librarian also inspires young readers to retell stories they read. Children recite from the book. Freedom fighters and other eminent persons are invited to share their life stories. Children play on musical instruments. In majority of the community libraries there is kid's corner. Kids play various games there.

The most attractive part for the children is use of computer for education. Materials developed by BRAC and other institutions are used in these venues. In order to motivate the readers, readers of highest number of books in a month receive complimentary membership.

In some libraries there are women forum and youth forum. One of the new initiatives in these libraries is English learning course using multi-media CDs.

4.2.2.3 Affordability

Describe how affordable the technologies and services offered in this venue are to the population, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

The activities provided by the venues are generally free. The libraries register all the users and take a small fee. Fees vary for different user groups. None of the users in community libraries

identified cost as barrier for accessing the libraries.

4.2.2.4 Fees for Services

What fees or other requirements exist in order to access and use the information in the venues? (registration, user fees, restrictions to certain populations)

If there are fees: What do these fees buy?

All libraries have a system of registration, with a fee. The registration fee varies from institution to institution. The registration fee varies between BDT 15- 1000 (22¢- USD 15) for one year. Children pay 220¢ for membership. Women pay 30¢, and Men pay 603¢. Life membership costs to the users for BRAC's library minimum USD 7.5. For mobile library a user pay 30¢ for a year. For borrowing a fixed number of book/CD, no extra fee is charged.

As Internet use is the most common service in all public access information venues, thus fees for Internet browsing per hour is put in the boxes below.

Indicate amount in local currency BDT 10

Equivalent in US Dollars: 15¢

Date of estimate August 12, 2008

and local currency name Taka

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Explain any salient differences in the services offered in different regions, sizes or other variables of significance:

For computer training fees for children is only BDT 50 (74¢), BDT 100 (USD 1.5) for students, for community members BDT 300 (USD 4.5). Internet browsing for members is 30¢ for four days one hour each day. Use of CD for members is free of charge.

4.2.2.5 Geographic Distribution

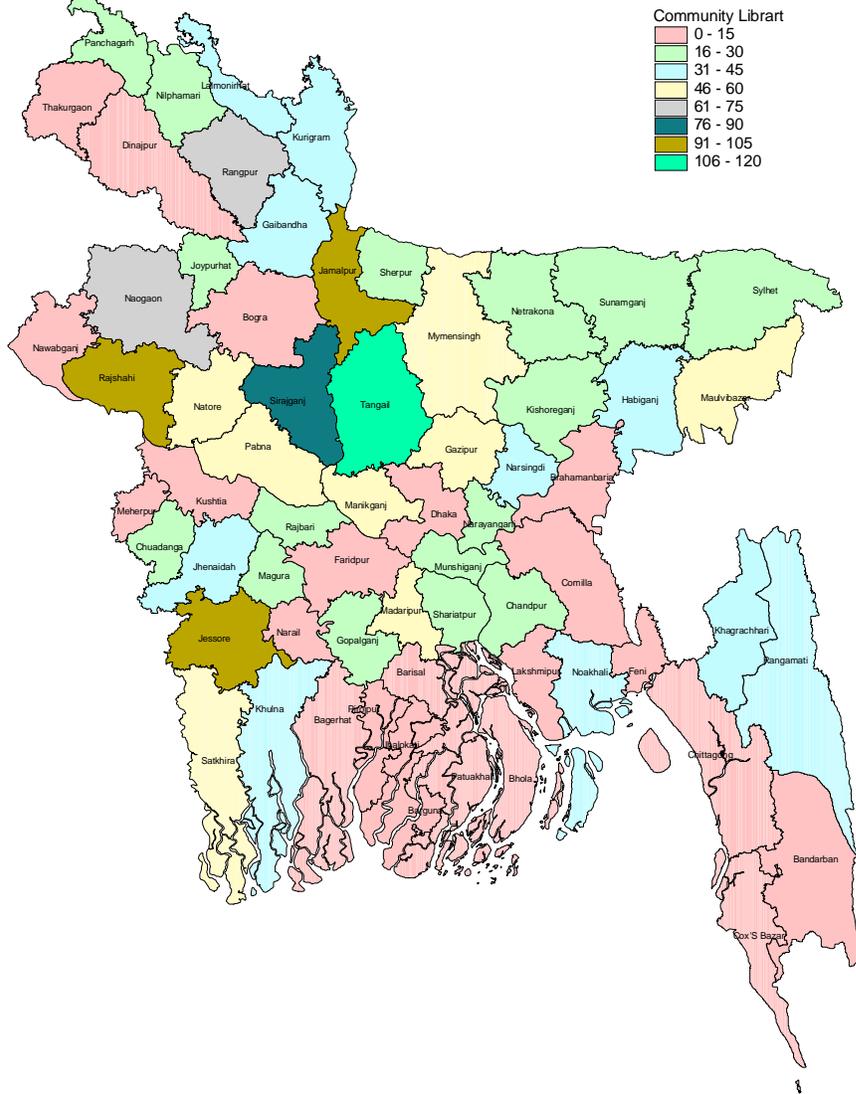
What is the distribution of the venues in terms of their geographic location?

Complement any details not already included in section 2.1: Venue Selection.

Highest number of community libraries are located in Dhaka Division (35.6%), followed by Rajshahi Division (33.6%). Concentration in other Divisions are: Khulna (15.5%), Chittagong (7.9%), Sylhet (6.9%) and Barisal (0.4%). Considering the poorest division Rajshahi, high penetration of the libraries plays a role in ensuring equitable distribution of venues.

4.2.2.5.1 Map

If available, insert a map that displays the geographic distribution of this type of venue in the country (expand to the size you need).



Description of map:

In Tangail district, there are highest number of community libraries (in the range of 106-120). In Jessore Rajshahi and Jamalpur district, there are second highest number of libraries (in the range of 91-105). However, majority of the coastal districts of the country falls in the category of lowest number of community libraries (in the range of 0-15).

4.2.2.6 *Other Factors affecting Access*

Other factors that affect equitable access to public information in this type of venue, not covered above?

If appropriate, indicate any specifics that apply to Digital ICT services alone.

The combination of activities and services make the venues more attractive to the communities. Location of the venues within the educational institutions has positive and negative side. The positive side is people trust these venues as a safe place for their children. The negative side is community participation is possible only after school hours. The introduction of mobile library also plays a role in better outreach. Presence of female librarian also promotes female visitors, particularly in non-urban areas. The model of BRCA run community libraries is very innovative, which ensures community commitment. The initial resources are pooled from the community, only then BRAC invest in set up of a library.

4.2.3 *Capacity & Relevance*

2 – 3 Paragraphs:

What is your overall assessment of CAPACITY ecosystem in this type of venue (human capacity, locally relevant content, integration into daily routines, socio-cultural factors, trust in technology, social appropriation of technology)?

The community libraries are run by a female librarian. Where female librarian is not possible to recruit, a male librarian runs the show. The academic qualification of librarian is minimum high school level education. The librarian is appointed following a competition. Generally, a person from a poor family gets preference.

The general services and activities are run by the librarians. The ICT training is generally provided by generally school teachers or senior students.

The services and activities mentioned above are highly relevant and attracts target audience.

4.2.3.1 *Staff Size*

How many people work in a typical facility for this type of venue? (full time-equivalent employees or contractors; describe any significant variations; i.e., large, medium and small libraries in the country)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

There is a full time librarian, generally female. The efforts of the librarian is supplemented by teachers of the school, where the library is located, and also by senior students after school hours. This approach reduces cost of operation.

4.2.3.2 *Staff Training*

What is the overall capacity of the staff (ie, librarians, telecentres operators) to help users access and use public access to information & communication services offered in this venue? Differentiate by applicable Equity of Service variables (Form 1c).

(iii) If appropriate, indicate any specifics that apply to Digital ICT services alone.

(iv) For Public Libraries, indicate if Library School training is available and/or required for librarians.

The librarians receive training on library management by coordinating institutions. For independent libraries, there is no formal training for the librarians, except for big ones.

4.2.3.3 Services Offered

What kind of services does this type of venue offer to the public? (ie, access to books, magazines; meeting & conference rooms; audio/video programs, computers, internet, other). Include Digital ICT services if offered.

Services Offered	Comments
11. Resource access within library and reading	
12. Leanding of resources	Within library and in the communities in selcted spots by mobile library
13. COff-line content browsing	Education, Entertainment
14. Internet browsing	Educational opportunities, news search, entertainment, health information, information about government services, job information, getting results of public examinations, submission of job application, bloggins and social networking
15. Email	Exchanging letters between relatives, sending news to newspaper, sedning admission request, exchanging views with studentsinother libraries
16. Video watching	
17. Chat	
18. Games	
19. Kids corner	
20. Collective activities	Recitation, singing, dance, play, presentation by eminent personalitis and freedom fighters, book's story retelling, watching CD, English learning

Explain any salient differences in the services offered in different regions, sizes or other variables of significance:

In some libraries there are women forum and youth forum. One of the new initiatives in these

libraries is English learning course using multi-media CDs.

4.2.3.4 Programs for Underserved Communities

Describe if this venue has programs specifically intended to reach underserved communities, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Mobile library is the most significant program for the underserved communities. In BRAC operated libraries, at least 20% members of mobile library services are physically handicapped.

4.2.3.5 Relevant Content

What type of locally relevant content is available? What else is needed? Who is doing it?

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Available Content:

The books in the community libraries are purposefully selected. There are books on fiction, science education, biography of eminent citizens, stories about war of freedom, reference books, rhymes, novel etc.

The CDs are on space, natural science, awareness on various social and health issues (e.g., HIV/AIDS, arsenicosis), cartoon films, supplementary materials on various subjects taught in the school.

Other Content Needed:

Readers need more books, which are recently published. The books on the topics satisfy the users. However, the users demand contents on how to go abroad.

Local Initiatives to build needed content:

describe

Source: www.cdlibd.org

http://www.braceducation.org/pace_page4.php

4.2.3.6 Services & Information Available in Local Languages

Describe the availability of services and contents relevant to human development that are available in **local languages** in this type of venue? (i.e., info on health, education, government services, etc)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

The books and other resource materials available in the libraries are mostly in Bangla language. A small percentage of books are in English.

The CDs on awareness on various social and health issues (e.g., HIV/AIDS, arsenicosis), cartoon films, supplementary materials on various subjects taught in the school are in Bangla language.

For other issues, users visit relevant websites. However, there is no guide yet for online content browsing.

It has been found that the librarians, teachers and the users are not aware about the available local language content on the net and off-line produced by different organizations.

4.2.3.7 Types of Uses

What do people USE the venues for (most frequent kinds of information & services people seek in them, activities they carry out in them)?

(ii) If appropriate, indicate any specifics that apply to Digital ICT services alone.

Refer to section 3.4 Charts: Information Needs and complement here as needed:

The community libraries have three dimensions: library services, ICT services, activities with ICTs and without ICTs.

Lending book is the most frequently sought service in the community library. Everyday children and students from different classes visit the library for reading and borrowing books. This is a part of school routine. After school hours the library is open both for community people and children. The community people come to the library afternoon. The mobile library go to a selected location for exchanging books with the members at their home.

Most frequent ICT use both in urban and rural libraries is Internet browsing (29% users). In non-urban libraries it is watching educational CDs and non-urban libraries is Internet browsing (31% of users). In urban community libraries other usages are: computer learning (19%), watching educational CDs (17%), phone and video conferencing (8%), chat (8%), blogging and social networking (7%), playing games (2%). In non-urban libraries other usage are: Internet browsing (31%), games (14%), computer learning (13%), email (5%), and entertainment CDs (3%).

Information seeking pattern using ICTs in urban and non-urban community libraries also varies. In urban libraries the most sought after information is on education (31%), followed by entertainment (20%), news (17%), government services (11%), job information (8%), health (6%), personal (3%), law and human rights (3%), and business information (3%). In non-urban venues this order is as follows: news (29%), education (27%), entertainment (20%), agriculture (9%), job information (9%), and health (6%).

The activities of a community library are targeted towards various user groups. Students of each class visit the library following a schedule. A school teacher discusses headlines of a daily newspaper. The librarian presents biography of eminent personalities. The librarian also inspires young readers to retell stories they read. Children recite from the book. Freedom fighters and other eminent persons are invited to share their life stories. Children play on musical instruments. In majority of the community libraries there are kid's corner. Kids play various games.

As was mentioned earlier, the most attractive part for the children is use of computer for education. Materials developed by BRAC and other institutions are used in these venues. For motivating readers, readers of highest number of books in a month receive complimentary membership.

Adult users find Internet browsing most attractive. They browse Internet for news and emailing. Students use it for downloading educational resources and searching "interesting" information. Job search is also a use. The libraries organize ICT fair to familiarize the users with the versatile use of computer. CDs are used as a toll for enhancement of education. Large screen presentation with multimedia projector creates community attraction to the venues.

4.2.3.8 Number, Type and Frequency of Users

Refer to section 3.4 Charts: Information Needs, **Error! Not a valid result for table..** Complement here as needed:

For non-urban libraries, 62% of the users are female (both for general use and ICT-use). For urban libraries, 42% female visits for general purpose and 35% visit for ICT use. The reason is engagement of female librarian and home outreach program (mobile library).

In urban libraries, 35% of the general users are from age group 14 years and below, 15% are of age between 15-18 years, 12% are of age between 19-25 years. The visit of the adult is also remarkable (32% are between age of 26-35 years), 3% each for age group 36-45 years and 60 years and above. For ICT use, 37% are within age of 14 years, 42% between 15-18 years, 16% 19-25 years, and 5% above 60 years. In case of non-urban venues, half of the general users are within age limit of 14 years, 31% between 15-18 years, 17% are between 19-25 years, and only 3% between 26-35 years. Interestingly senior citizens do not visit non-urban libraries for general use. However, in non-urban venues 8% of visitors of age between 36-45 years visit libraries for computer use, but they do not use for general purpose, i.e. for book reading. Again share of users within age of 14 years is high in case of non-urban venues (42%). The share of following two groups is 25%, 15% and 10% respectively.

The main success of the community libraries is they serve mainly poor segment of the society, similar to the case of non-urban telecenters. In urban libraries 41% general users and 52% ICT users come from low income group. In non-urban libraries, this rate is higher, 56% general users and 50% ICT users belong to low income group.

In urban libraries, 41% general users are with education level at least of college and above, for ICT use this share is 20%. Others are from young group with education level up to high school and now continuing education. In non-urban community libraries, the shares are 20% and 13% respectively.

4.2.3.9 Users Capacity to use information and services offered

What is the overall capacity of the users to take advantage of public access to information & communication resources, differentiating by applicable Equity of Service variables (Form 1c)?

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

Users' capacity to use services for general purpose is adequate. However, for using ICT services they need help from the librarian and teacher. This is particularly applicable for young users (below 14 years old) and elder users (above 45 years). The borrowing habit of books from mobile library is high, which shows that the users find interest in reading books. However, users are not aware of available local language contents on the net and off-line produced by different institutions.

4.2.3.10 Training Courses for Users

Describe training courses offered to the public at this venue, and if they offer some kind of testing and certification.

Training courses: There is no general training

ICT specific training courses: Basic ICT learning. There is no certification after training.

4.2.3.11 Integration into daily routines

How easy is it for users to integrate the information and services offered in this type of venue into their daily lives? (offer concrete solutions to their needs and problems, make it easier to solve them at this venue than in other places)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

In urban libraries, 88% of the general users are regular users, which means they have made coming to library as a part of their life. This is true also for ICT users (84%). In non-urban areas 94% users are regular users (of which 42% daily visitors). The share of ICT users is same as general users, however, number of frequent visitors is more than in case of general use. Such high level of regular visit is a clear indication that they find the activities and services useful to their life. The main difference of this type of venue from others is it focuses on life skill and information services; probably they are successful in terms of providing those skills.

4.2.3.12 Users Perceptions about the Venue

What is the general perception or opinion of the population about the venue (not necessarily its specific services, but the venue itself: ie, what do people generally think about libraries? Are they places that are "cool" or "only for elites" etc?), differentiating by applicable Equity of Service variables (Form 1c)? This includes perception by people who do not use the venue...

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

The use of computer for watching CD is the most "cool" aspect for the users of non-urban community libraries. For urban users most cool aspect is "Internet browsing". The dominance of young group from low income group is a promising picture.

4.2.3.13 Social Appropriation of Information and Generation of New Knowledge

What activities, products and services are users undertaking that exhibit new levels of social appropriation of technologies and generation of knowledge? For example, how are users generating and disseminating new knowledge, products and services through their use of this venue? (see category 13 in Real Access Framework for Social Appropriation of Technology).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Integration of ICT for mainstream learning purpose is probably the biggest success of these venues. However, it is probably early to think about application of ICT for some change.

4.2.3.14 Trust, Safety & Privacy

What is the general perception or opinion of the population about the safety, security and privacy (TRUST) of the information and services offered in this venue?

The user's distribution by age, income group, and education shows that community people depend on these venues for their children and they themselves find them useful in many occasions.

4.2.3.15 Gaps and Opportunities in information & services offered

What other information gaps & opportunities exist, which are not being met? (other information / services people need that are not being met there and could be offered, especially through Digital ICT services)

The true potential of these venues from the perspective of using ICTs are yet to be unleashed. This is primarily due to lack of knowledge of the librarians and teachers about the full potential of the Internet. The involvement of the students with assignments using Internet may further expand the horizon of imagination of the users.

It was also observed that the stakeholders of these venues are not aware of availability of local language content (both off-line and on-line), which may further enhance use of the venues.

The thinking in these venues are still around PC, the power of mobile phone is not yet thought, which could add services provided by the "mobile lady" through telecenters.

As a whole, one can easily identify that there is a disconnect among the people of four types of venues, which does not allow copy the best things in each of them for moving towards social appropriation of technology.

4.2.4 Enabling Environment

2 – 3 Paragraphs:

What is your overall assessment of the ENVIRONMENT ecosystem in this type of venue (local economy, national economy, legal and regulatory framework, political will & public support, regional and international context)?

The overall environment for NGO activities in the country is favorable. Although resource mobilization from donor sources has become a challenge, still there is room for innovative ideas. Resources are still available for integration of ICTs in the mainstream development activities, which these types of venues may utilize. The true community participation is strength of these venues for attracting resources.

4.2.4.1 Local & National Economy

Describe the local & national economic environment and how it affects public access to information &

communication in this type of venue (refer to & complement economic summary in country assessment, section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

Considering the poverty situation in the country, this type of public venue will be very effective to complement mainstream development efforts. The low income group will need this venue for a long time to come.

4.2.4.2 Legal & Regulatory Framework

Describe the legal and regulatory framework and how it affects public access to information & communication in this type of venue (refer to & complement economic summary in country assessment, section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

Any organization can start working with a trade license from local government institution. Other routes are registration with Social welfare Department or registration with Joint Stock Registrar of Companies and Societies (JSRCS) under the society Act, 1860. One can also register with JSRCS under Company Act, 1994 under section 28. If any organization wants to receive foreign fund, then it has to register with NGO Affairs Bureau. There is no special regulation for this type of venues.

4.2.4.3 Political Will & Public Support

What is the level of political will and public support for this type of venue? (refer to & complement section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

The difference in performance of public libraries and community libraries shows that the real difference is just in willingness and perceiving real needs of the community. The government can channel resources through NGOs for expansion of this kind of public libraries, as the capacity of maneuvering is higher for this kind of venues, which is essential for public libraries to be always modern and to the needs of the community.

4.2.4.4 Organization and Networking

Describe if the facilities in this type of venue organized in any network, association or other collective body? (ie, national public library system, telecentre franchise or network, etc)?

There is no formal network for the organizations for operating this kind of venues. Considering the diversity of activities and social orientation, these venues may join network of telecenters, which may benefit both existing telecenters and the community libraries.

4.2.4.5 Partnerships

Describe notable public-private partnerships in support of this type of venue.

If appropriate, indicate any specifics that apply to Digital ICT services alone.

4.2.4.6 Other Environment Factors

Other factors in the environment that affect access and use of information in this kind of venue, not covered above?

4.2.1 For Publicly Funded Venues only: Revenue Streams

This section is meant specifically for publicly-funded venues (public libraries, national connectivity programs, etc).

4.2.1.1 Budget

What is the total budget for this public access venue system (applies especially for libraries, answer for other venues if applicable and if available)?

Total Budget for Fiscal Year fiscal year

Local currency name amount (local currency)

Approx. equivalent in USD based on exchange rate of on date .

4.2.1.2 Relative size of budget

How large (or small) is this budget in relation to other funding streams? (this is a way to show, in financial terms, how much the government cares about information and public access as compared to a variety of other issues in the country).

Relative Size of Budget for same year	Total budget (local currency)	Comments
Total national budget		
Education		
Other (name)		
Public Libraries		

Other Comments:

4.2.1.3 Sources of funding

What are the sources of funding for this public access venue system?

Sources of funding:	Approximate % of total budget	Comments
Government sources:		

International donors:
National donors:
User fees / services:
Other (name)
Other (name)
Other (name)

Other Comments:

4.2.1.4 Paths and Flows of resources

How do resources get allocated and disbursed to the actual venues? For the principal funders, and especially for the public sources, what is the flow of funds? How are the funds raised (what tax stream), what path do the tax streams flow before they get to the specific venues? Who makes decisions about this funding?

4.2.1.5 Fees and Cost Recovery

Describe if there are user fees or any other type of cost recovery. How does it affect service delivery and usage?

4.2.1.6 Cost Categories

What are the main cost categories in the operation of this kind of venue? (% of total annual budget)
If appropriate, indicate any specifics that apply to Digital ICT services alone.

Cost Categories for Operation:	Approximate % of total budget	Comments
Staff (salaries, benefits)		
Building Infrastructure		
Utilities		
Staff Training		
Computers / Technology		
other (name)		

other (name)

other (name)

other (name)

Total

100%

Other Comments:

4.2.1.7 Recent changes and future trends

Describe any recent changes and anticipated future trends in the funding and revenue streams for this type of venue in the country. Have funding levels risen or decreased dramatically over the past few years? What is the outlook for the foreseeable future?

4.2.2 Case Example for Venue # 2: Community Library

Provide a short descriptions and commentary for each type of venue, offering a realistic sense of what the venue looks and feels like in its day to day operation, the kind of people who visit, and the kind of services they receive. Also, the case example indicates what makes the case unique or what features are commonly shared with other venues. A photo and short quotes will make it even more real.

Gonokendro: Centre for People’s Activism and Knowledge

The Post-Primary Basic and Continuing Education (PACE) Program of the Bangladesh Rural Advancement Committee (BRAC) started in 2001. Gonokendros (GK), formerly known as Union Libraries, started their operation in 1995 and were later incorporated in the PACE program in 2002. BRAC incorporated GKs because most of the GKs are located on the campuses of secondary schools.

The principal objective of the GKs is to ensure that rural communities have increased access to a range of top quality education and information services that are financially sustainable. The GKs are located at the union level where an average population of 30,000 or more exists. The GKs are based on community participation. Supplemental funds and institutional support would be provided by BRAC. Communities would initially mobilize 200-300 subscribers to raise a minimum of BDT 30,000. The target in the next two years would be to mobilize additional 200-300 subscribers to bring the total amount raised to BDT 50,000. The GKs that are successful in achieving this target in their first two years would receive a matching grant of BDT 50,000 from BRAC and 1,000 books and necessary furniture. BRAC also commits to provide necessary supervisory and capacity development in the initial two years and an additional year if required. GKs that are successful in raising BDT 100,000 (BDT 50,000 from own source and BDT 50,000 from a matching grant from BRAC) convert this fund into a Trust. The objective of the Trust was to ensure financial sustainability of the GKs so that they can meet their recurring

expenditures from the interest gained from the deposit. BRAC thought that the GKs would become self-financing after the initial two years.

Located at the union level and comprised mainly from members of the community with one member from BRAC, the committee normally meets once a month after a library (GK) is established. A librarian is chosen from the community who receives training from BRAC. The library is open for six hours each day for six days a week. Members of the library and students can borrow one book at a time for 1-2 weeks. Creating readership is one of the objectives of the GKs. However, there are further external benefits that the GKs are ideally positioned to serve. These include hosting community events and celebrating important national day events and also birthdays of famous people. Further benefits include blood and eye donation camps, cultural events and writing competitions. GKs also serve as a place to link members to free skills training courses offered by the GOB, BRAC and other NGOs.

GKs lend textbooks to very poor students on an annual basis. They also serve as school libraries in many secondary schools. Many GKs have set aside a corner dedicated to children that encourages children to read books, play indoor games and learn drawing from a blackboard. Librarians are also encouraged to tell stories to children to develop their imaginative faculties.

BRAC started putting computers in selected GKs in 1999 on a pilot basis. By November 2008, 800 GKs have computer facilities and 100 have Internet facilities.

It is envisioned that in course of time the GKs would pay back the cost of the computers from the funds they generate from computer courses. Librarians were trained and courses started to be offered at the going market rate with special discounts for women and members. To help trained members retain their computer skills, computer user clubs were formed in 15 libraries.

To reach out to members of the GKs, especially women and handicapped people who were unable to come to the libraries physically, PACE started a mobile library initiative. 70 percent of the mobile library users are women.



BRAC Pirgacha Gonokendra Library, Pirgacha, Modhupur, Tangail

The Prigacha Gonokendra Pathagar is located in the west of Modhupur thana of Tangail district. This region is located inside the Modhupur and Vayoler gorh Forest. The villagers of Pirgacha are totally dependent on sunlight to shine their living places but the light of education and the shine move them forward and lighten by the power of success and made

them independent in livelihood, economic conditions.

Land in the Pirgacha is covered by forest, and inside the forest, there is cultivable land. Lands are of two kinds: low land and high land. Most of people are involved in agricultural activities; few people are working in transportation services. Major crops cultivated by the local farmers include fruits like Pineapple, Mango and Banana. Majority of the population are Tribal.



There are 18 non-schools and four Upazilla. There are in this Upazilla, but students have to go other places for higher education.

government schools, 22 missionary government missionary schools in this also four high schools and one collage there is no university. Therefore, to Dhaka, Tangail, and Mymensingh and

There are few NGOs in Pirgacha. They are mainly working for the livelihood development of the people living in this area. BRAC is one of the NGOs working for long time in this village. Among other NGOs working here for long time include Karitas and World Vission.

Since 1933 a Mission named "Holy Cross Mission" is working in Bangladesh. Under the mission, in 1996, Holy St. Paul's Church, Modhupur, Tangail was established by a who is working in Bangladesh about 52 full name is Rev. Eugene E. Homrich, Father Homrich was born in 8 December serving as C.S.C. Father since 1955.



Pirgacha, person years. His C.S.C. 1928, and

The "Bethany Ashram", located near the "Gonokendro" was established in 1993. There are two volunteer nurses in Asharam. The villagers consider Asharam primary place for treatment. A local doctor (Dr. Beker) who came from New Zealand is working as a volunteer doctor for the people of this area. About 25 trained volunteer nurses are working with Dr. Beker to serve the local community.

November the as the

With the support from the Pirgacha high school and locality, BRAC introduced the "BRAC Pirgacha Gonokendra Library" in 14th January 2002.

The Gonokendra Library is open for all, and there are about 2059 books and a daily news paper for the community. One third of the users of the Gonokendra are males and the rest of the users are females. Fatima, a student of class IX says, "it is really blessing to have a library and a cyber café together. The kid's corner is a bonus for us."

4.3 Venue # 3: Telecentre

4.3.1 Overall Venue Assessment

Provide a broad picture of the public access information landscape in this venue, informed by the results of this research.

2 – 3 Paragraphs:

What is your overall assessment of public access information in this type of venue?

Telecenter is a public place where people can access computers, internet and other technologies that help them gather information and communicate with others at the same time as they can develop digital skills (en.wikipedia.org/wiki/Telecenter) .

The telecenter was first launched in Mirzapore in 1997 by Grameen Communications with the aim to help the pineapple growers of that area with market information through the advantage of ICT. However, non-ICT based public access venues in non-urban areas for accessing information and knowledge was started by Dhaka Ahsania Mission 1987. In mid 1900s they introduced off-line ICT-based content for the users. The community based learning centers for youth was started in 1998 by Amader Gram in Rampal, Bagerhat. The mainstream telecenter movement was started in 2003 with the research project of D.Net and first Internet based telecenter with comprehensive content-base in local language was established in 2005 in Mongla, Bagerhat. Since 2006 the telecenter boom started and now, according to the estimate of BTN, there are total 1162 telecenters in the country with various business model, service mix and ownership pattern.

With similar kinds of facilities, one fundamental difference between telecenters and cyber cafes is telecenter's focus on information and knowledge services for underserved people, where as cyber cafes mainly serve demand for communication in urban and semi-urban areas. In Bangladesh, telecenters are found in both urban (but except major cities) and rural areas, whereas cyber cafes are found only in urban areas. Another important difference is cyber cafes are fully for profit, whereas telecenters are seen with for-profit, not-for-profit and hybrid income model. Diversity of users in terms of occupation, age and income group shows that telecenters are more equity concerned than cyber cafes.

Only non-urban telecenter look into the social equity dimension, where half of the users are from low income bracket. Most significant feature of the staff working in telecenters is that in majority of the non-urban telecenters there is at least one female staff, which played a role in greater number of male users of the services (61%). More than 60% of the users of non-urban telecenters are from low income group, which means that they serve most underprivileged people in those communities. Like in community libraries, presence of female staff in the telecentres attracts female users. This is positive side of telecentres in terms of ensuring social equity. However, this is not the case in urban telecenters.

The research shows that people of age group between 19-45 years (93%) are the dominant users of urban telecenters, whereas in non-urban areas 61% of users belong to this group. This is different in community libraries, where majority of the users are within age of 14 years. Although

non-urban telecenters have activities which involve community people, they are less activity driven than community libraries.

Total annual turn over is still low probably due to lack of appropriate campaign of the services provided by the telecenters. Cost remained a major issue for urban and non-urban users to access the facilities. Although cost of Internet use in telecenters is cheaper than in cyber cafés. Low bandwidth has been identified as a problem by the users. Other than mobile operators no ISPs provide Internet connection in non-urban locations. Due to high cost of access, the operating cost of telecenters become high and affect financial sustainability of the centers. It is to be mentioned here that an urban corporate user and a non-urban poor farmer pay same amount for Internet connection, which is not just in terms of social equity. Despite availability of customized local language content, the users identified inadequate content as a problem. This notification hints that lot more is needed to be done for content development. Among physically handicapped people, visually impaired people rarely visit telecenter as text based content can not satisfy themselves. They need content with voice. Language of the content should be easier to understand by the operators and users. Lack of knowledge on how to use computer has been identified as a problem in terms of accessing content. Assistance from infomediary is a distinction of telecenter, which enables an illiterate users accessing content and use it for solving livelihood problems. Audio-visual content was identified more useful than text and picture based content. People believe what they see and hear. Location is a very important factor for improving women's access to telecenters. Unfortunately overwhelming majority of the telecenters are in growth centers. Although there is no apprehension by the parents of the children to send them to telecenters, probably lack of proper attention is a reason, why poor number of visit of children. In a few telecenters, children are the majority users, however this data has been lost in the average.

The high share of regular users means that those who visited the centers found them useful for their life and livelihood. However, there is a disconnect between satisfied users and people who did not visit the centers. The introduction of female infomediary visiting women at their houses can act as a trust building factor.

The massive use of the Internet takes place during publication of result of public examinations. This kind of use of these venues shows that potential number of users may be very high if people know fully about the scope of the use of these venues. Adding more e-government services probably would play a vital role creating habit to visit telecenters by majority of the community population.

The analysis shows that collaboration among the venues of different kinds can enhance effectiveness of the venues. The content sharing may be most easy task to start with. Combination of service and activities of community libraries can be replicated in telecenters.

The Poverty Reduction Strategy Paper (PRSP) of Bangladesh included a plan to establish telecenters in the country. The government has taken initiative to introduce services which may be delivered through telecenters. Furthermore, the government also has taken a number of initiatives related to telecenter establishment. Such intervention would create a more inclusive environment, as low income people, according to the survey, are still struggling to pay for services.

Two important support is required form the government, one, financing through existing lending windows of state-owned banks, and free Internet connection in non-urban telecenters. The government already announced free Internet connection in primary schools, and 70% discount in secondary school. The irony is there isn o computer in primary school and penetration of computers in secondary schools is also low. Whereas, the telecenters, which are working in non-urban areas and struggling to meet the operating cost, remained out of the purview of this decision.

4.3.2 Access

2 – 3 Paragraphs:

What is your overall assessment of ACCESS ecosystem in this type of venue (physical access, appropriate technology, affordability)?

The number of telecenter in Bangladesh as of July, 2008 is 1162. All of the telecenters are established either by not-for-profit sector or private sector. Among these telecenters 750 are located in urban areas and 412 are in non-urban areas. The distribution of telecenters by location of establishment shows that about eighty two percent of the telecenters are located in growth centers. Growth centers are those places which are popular locations in a community. Usually in these growth centers community market, shops, hospitals, schools, etc. are located. Most of the telecenters which are growth centre based are run by private entrepreneurs either in the form of franchisee or commercial outlet of a private company. These telecenters mostly provide services with income generating potential. Financial sustainability is the prime goal of such telecenters.

About 11% of the telecenters are based in educational institutions. Most of these telecenters are supported by funding agency, private company or individual sponsor. These telecenter are mainly targeting students especially building their IT skills, but also provide information service to the communities.

About seven percent of the telecenters are community based. Naturally community participation and direct involvement in the process of operation are visible in this type of telecenters. Most of these telecenters in this category are initiated by NGOs in partnership with community organizations or self-help groups. Main focus of these types of telecenters is to address the needs of the underprivileged groups. Social acceptability of such telecenter is quite high while financial sustainability is challenging as people's ability to pay for services in those areas are quite low.

Less than 0.5 percent of telecenters are located in local government offices (Union Parishad). These small penetration is practiced by NGO and International Organization as a test case. The purpose of such targeted intervention is to promote local government institutions by offering various information and services to the community.

4.3.2.1 Physical Access

Describe how accessible this venue is to various population segments, differentiating by applicable Equity of Service variables (Form 1c), especially the differences between urban and non-urban settings.

If appropriate, indicate any specifics that apply to Digital ICT services alone.

In urban telecenters three-fourth users are male and only one-fourth are female users. Availability of female staff in the telecentres facilitates such high number of female visits. Only 10% of total users of telecenters come from high income group both in urban and non-urban telecenters. In urban telecenters 70% are from middle income group, the rest are from low income group. On the other hand, more than 60% users in non-urban telecenters are from low income group. Overwhelming majority (93%) of the users are adult in urban telecenters, which means the centers are used only for professional purpose. In non-urban telecentres, more than one-third of the users are of age between 15-18 years. Both senior citizen and children are missing there. Forty percent users with education level upto only elementary level visit non-urban telecenters. This group would be excluded if there was no telecenters in non-urban areas.

4.3.2.2 Appropriate Technology & Services

Describe how appropriate the technologies, services and information offered in this venue are to the population, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

A typical telecenter is equipped with 3 or more PCs. The standard sets of equipments include: web cam, printer, scanner, CD-writer, camera, photo printer, video player, mobile phone, laminating machine, solar power panel, fax machine, spiral binder, photocopier, Television, multi-media projector etc. Ninety percent of the telecenters have Internet access. However, quality of Internet connection is inferior to cyber cafes. Some telecenters have soil testing kit, water pH testing kit, nebuliser for rental to village doctors, blood pressure measurement machine, weighing machine etc. The selection of equipment is based on demand in a particular community.

Mobile phone comes another important tool which is mostly used for communicating with friend and relatives. Internet connection bring revolution to the community as it opens up new window to the people by which they can access important information as well as important forms required for citizen life. Digital camera and photo printer are other important ICTs in telecentres which are used for taking photographs. These photographs are used for students, micro finance borrowers, applying for jobs and broadly family entertainments. In some telecenters they do use weight machine, PH testing equipments, soil testing devices. These devices are not pure ICTs but the outcomes of using such devices matches with the information repository to get appropriate advice on what to do. For example, a pregnant mother can measure her weight and can match with the weight chart during pregnancy and decide about the next steps.

Many telecenters organize various activities involving community groups. For example, health camp, legal camp, agriculture camp, education camps are organized in many telecenters to improve acceptability of the centers to the community people. Children are invited to watch entertaining and educational movies afternoon in many centers. Furthermore, pre-school learning is arranged in a few telecenters. Big screen movies are also shown to the community people in the evening.

4.3.2.3 Affordability

Describe how affordable the technologies and services offered in this venue are to the population, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

The services offered by telecenters are generally on payment; however, a few telecenters offer free-of-cost services. Users of the general services in urban (32%) and non-urban (22%) telecenters identify cost as the major barrier to access the facilities. Urban ICT service users (23%) also identify cost as a major barrier. However, non-urban ICT users (21%) identify cost as a secondary problem. They (24%) think that more content is needed to meet their demand. More than one-third of the users opine that services of the cyber café are costly. As a result, the rich and upper middle class people remain the major users. Only 7% of the users are from low income group. Urban telecenters are used predominantly (82%) by middle income and high income people. On the other hand, majority of users (60%) of non-urban telecenters are in low income bracket. Only 15% people from high income bracket use services of non-urban telecenters.

4.3.2.4 Fees for Services

What fees or other requirements exist in order to access and use the information in the venues? (registration, user fees, restrictions to certain populations)

If there are fees: What do these fees buy?

Some telecenters register all users and provide with a user ID card, which eases the process of service delivery for repeated users and at the same time, a user database is being created for various research purposes. There is no initial subscription fee for the users. Users have to pay 22¢- 30¢ per hour for internet browsing.

Apart from providing these core services telecenter provides some other services, for which fees vary from place to place based on local market condition.

As the most of the services are delivered through Internet, the cost of browsing is given below.

Indicate amount in local currency BDT 15-20

Equivalent in US Dollars: 22¢- 30¢

Date of estimate August 12, 2008

and local currency name Taka

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Explain any salient differences in the services offered in different regions, sizes or other variables of significance:

Users have to pay 22¢- 30 ¢ per hour for internet browsing.

a. Information Service: The fee for accessing off-line content (content repository in CD) is BDT 2 (3¢) per problem. While taking print out of important pages from the offline content one has to pay BDT 5 per page (7.5¢). In case of watching videos on important skills development issue the fees for watching one movie is BDT 2 (3¢). However, movies on social awareness issues and movies for children are free in every location, where this service is available. Connecting livelihood experts (help line) through mobile phone charges BDT 3

per minute (4.5¢). Fee for connecting livelihood experts through e-mail is BDT 5 per e-mail (7.5¢). Connecting experts using internet messengers (skype, yahoo, Google talk) cost BDT 1 per minute (1.5¢).

b. Internet browsing: Cost of internet browsing is BDT 15-20 per hour (22¢- 30¢). This charge is cheaper than in the cyber café. There is some discount for students (usually 25-50%) in some locations. Again taking important print out costs BDT 5 per page (7.5¢).

c. Downloading: Cost of downloading favorite ring tones is BDT 10 per download (15¢). In case of downloading government form it costs BDT 8 per page (12¢). In case telecenter operators assisting the user to fill-up a government form costs BDT 15 per form (22¢).

d. IT enabled Services: For for passport size photo is BDT 5 per copy (7.5¢) and for 3R size fees per copy is BDT 10 (15¢). Computer compose cost is BDT 10 per page (15¢). Video conference cost is BDT 20 per hour (30¢).

e. Email: E-mail cost is similar to internet cost which is BDT 15-20 per hour.

f. ICT training: Usually ICT trainings are provided to the community which fees is ranged from BDT 1000-1500 per course (USD 15-22).

4.3.2.5 Geographic Distribution

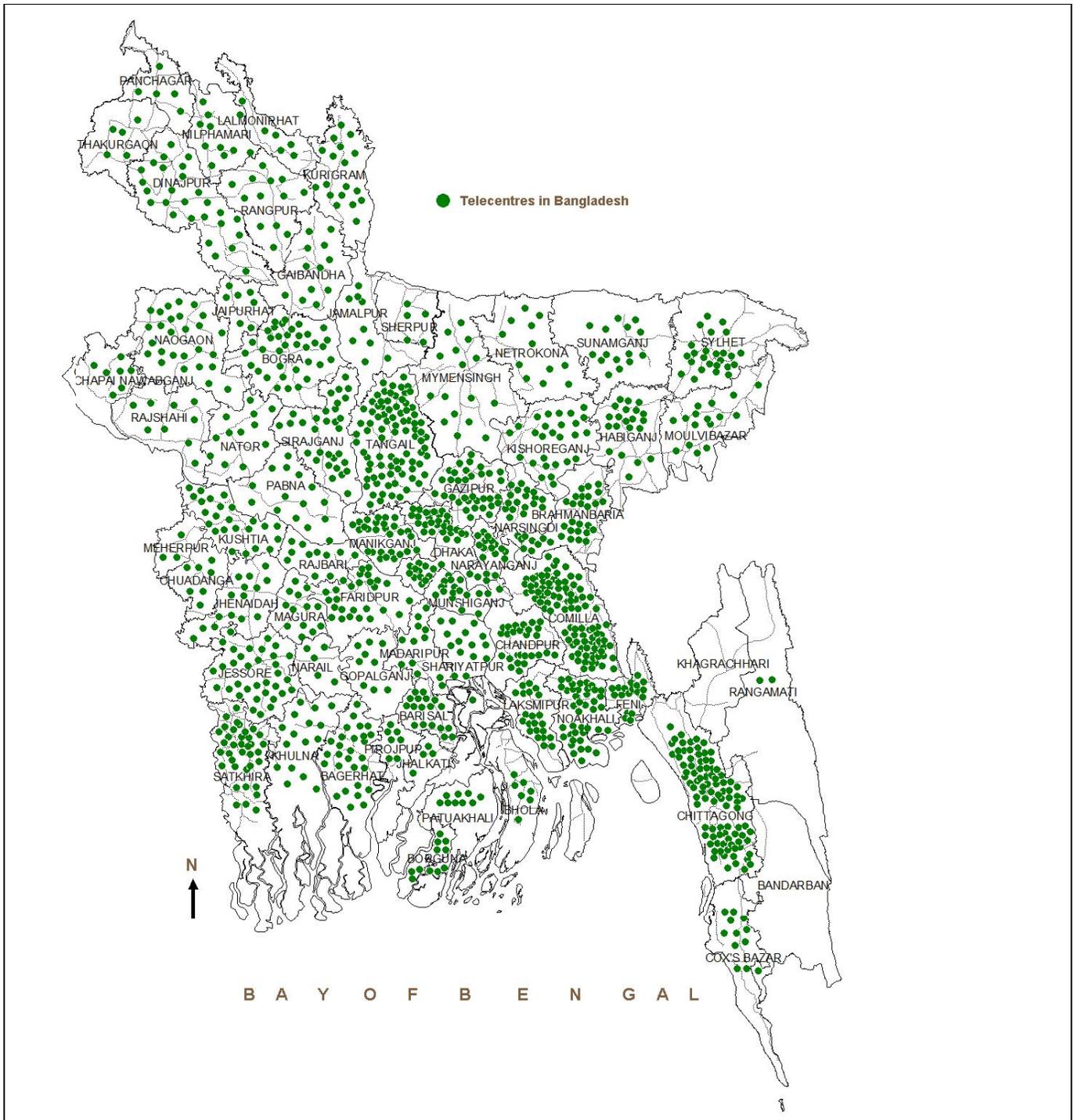
What is the distribution of the venues in terms of their geographic location?

Complement any details not already included in section 2.1: Venue Selection.

Telecenters in Bangladesh are located both in non-urban and urban locations. The concentration of telecenters is highest Dhaka Division (29 per cent) followed by Chittagong (28 per cent) division. On the other hand density is very low in Sylhet division (6%) and Barisalj division (5%).

4.3.2.5.1 Map

If available, insert a map that displays the geographic distribution of this type of venue in the country (expand to the size you need).



Description of map:

The map shows that all districts have some penetration except in two Hill Tract districts. Absence of telecommunication and government restriction are the reasons for such scenario. Recently the government allowed operation of telecom operators. It is now expected that telecenters will be established in these districts.

4.3.2.6 Other Factors affecting Access

Other factors that affect equitable access to public information in this type of venue, not covered above?

If appropriate, indicate any specifics that apply to Digital ICT services alone.

The survey identified more barriers for telecenters than cyber cafes mentioned by the users and operators of the telecenters. The barriers identified are: cost, location, hours of operation, lack of adequate training, inadequate services, inadequate content, low bandwidth, and inappropriate language of content and electricity failure. Interestingly, both general users and ICT users of telecenters in urban locations and general users of the non-urban locations identified cost as the most important factor affecting visit to telecenters. Low bandwidth is a problem identified by general users more than ICT users, which means the perception influences use. Inadequate content was also identified as a problem. The telecenters have a directory of online content and copy of off-line content on various livelihood issues, which is not the case for cyber cafes. This means that the existing content is not enough for meeting huge demand of the community. Another reason may be lack of capacity of the operators and information about their availability by the users.

Language of the content should be easier to understand by the operators and users. Lack of knowledge on how to use computer has been identified as a problem in terms of accessing content. Location of the venue is one of the factors that is affecting equitable access. The lowest proportion of users identified location as a problem for telecenters. Female users do not feel comfort to visit centers located in the growth centers. The fundamental difference, as was mentioned earlier, between cyber café and telecenter that the telecenter has an infomediary, who helps users to get right information although they do not know how to use computer. It is to be mentioned that more than 60% of the users of non-urban telecenters are from low income group, which means they serve most underprivileged people in those communities. Among physically handicapped people, visually impaired people rarely visit telecenter as text based content can not satisfy themselves. They need content with voice.

4.3.3 Capacity & Relevance

2 – 3 Paragraphs:

What is your overall assessment of CAPACITY ecosystem in this type of venue (human capacity, locally relevant content, integration into daily routines, socio-cultural factors, trust in technology, social appropriation of technology)?

The capacity in terms of availability of equipments is adequate in telecenters. Many telecenters have 2 PCs (small), medium sized telecenters have 3-8 PCs, whereas large telecenters up to 15 PCs.

The users are generally happy with the information services provided by the telecenters, however some demands are not fulfilled due to lack of local language content for issues. Soil testing and water pH testing has improved cultivation practice, particularly use of fertilizers became rational for those users, who took these services.

4.3.3.1 Staff Size

How many people work in a typical facility for this type of venue? (full time-equivalent employees or contractors; describe any significant variations; i.e., large, medium and small libraries in the country)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Most significant feature of the staff working in telecenters is in majority of the non-urban telecenters there is at least one female staff, which played a role to attract greater number of female users of the services (61%).

4.3.3.2 Staff Training

What is the overall capacity of the staff (ie, librarians, telecentres operators) to help users access and use public access to information & communication services offered in this venue? Differentiate by applicable Equity of Service variables (Form 1c).

(v) If appropriate, indicate any specifics that apply to Digital ICT services alone.

(vi) For Public Libraries, indicate if Library School training is available and/or required for librarians.

The staff of the telecenters is less educated than in cyber cafes. Generally, they are with 12 years of education and with special training on how to run a telecenter. The staff receives refreshers training and mobilization training provided by the supporting organizations.

4.3.3.3 Services Offered

What kind of services does this type of venue offer to the public? (ie, access to books, magazines; meeting & conference rooms; audio/video programs, computers, internet, other). Include Digital ICT services if offered.

Services Offered

Comments

21. Off-line content browsing

Agriculture, health, education, non-farm economic activities, law and human rights, disaster management, directory information, entertainment, appropriate technology

22. Internet browsing

Educational opportunities, personal, news search, entertainment, health information, information about government services, information on agriculture, business information, job information, commerce and business, games, news paper reading, getting results of public examinations, visiting social networking sites (face book), e-government services, online registration for submission of DV form, submission of job application, online registration for national cultural contest

23. Email

Opening email account, exchanging letters between relatives, sending news to newspaper, exchanging

		business information, for remittances
24.	Downloading	Learning materials, games, songs in mp3 format and ring tone of mobile phone, different government forms, games, programming codes, admission form for educational institutions, video
25.	IT Enabled Services	Photography, Video Editing, Computer composing, printing, video conference, Net to phone, chatting, blog and social networking, scanning, CD writing
26.	Using application software	Word processing, spreadsheets, PowerPoint, database software, dream weaver
27.	Sales	CD, DVD, Games and Software, SIM card for mobile phone, accessories
28.	Repair and maintenance	PC Servicing, Mobile Phone Servicing
29.	Phone	Cell phone, land phone call in country and abroad
30.	ICT Training	Basic learning, Microsoft Unlimited Potential Curriculum

Explain any salient differences in the services offered in different regions, sizes or other variables of significance:

A number of telecentres provide following services:

Soil testing, water pH testing, nebuliser rental, blood pressure and weight measurement, Fax, Spiral Binding

4.3.3.4 Programs for Underserved Communities

Describe if this venue has programs specifically intended to reach underserved communities, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Along with providing information and services telecenters organize some social activities to build social and ICT awareness among the people. Some remarkable social activities are:

- a. Issue based Camp: Issue based camps to offer face-to-face consultation to the villagers through participation of local service providers is one of the key activities that many telecenters are organizing. Major issues for such camps include agriculture, health, education, legal & human rights, disaster management, social awareness etc. These camps are very powerful as it connects local service providers with the villagers.
- b. Cartoon show: Cartoon is another effective tool to mobilize students and children. Regular

cartoon show is arranged in non-urban telecenters, where children, their friends, sometimes their mothers came to watch the video cartoon. This creates awareness among children about various social issues like cleanliness, sanitation, drinking water, education etc. which makes these children social agents for changes.

c. School for poor pre-school children: In some telecenters with community participation, pre-school program is organized regularly. This gives opportunity to the underprivileged children to get access to basic education.

Users in non-urban telecenters receive free legal aid support, once their case is communicated to the help desk expert and then referred to lawyers of network organizations.

4.3.3.5 Relevant Content

What type of locally relevant content is available? What else is needed? Who is doing it?

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Available Content:

Offline Content: The largest off-line customized content for rural people is "Jeeon-IKB" [information and knowledge base] developed by D.Net. Dhaka Ahsania Mission developed a number of video and animation content, which are useful for the users who seek opportunities in non-farm sector. D.Net developed animation content for agriculture and law, which are being used in telecenters.

Online content: In Bangladesh, the number of websites in the national Language is around 95, and the number of websites in English and other Languages are about 600 (survey by D.Net). Again, private sector, social enterprises, NGOs and civil society organizations play an important role in creating local language content. The government is also keen to prioritize this issue. In the draft Broad-band Policy the content issue has been highlighted [<http://www.pmo.gov.bd/bbpolicy/bbpc.html>].

All Bangla newspapers publish web version of the newspaper, which is most significant source of local language content. Bangladesh Open Source Network (BdOSN) drives a movement of creation of local content in Bangla Wikipedia (bn.wikipedia.org). Currently there are more than 18000 entries in the Bangla Wikipedia.

The next important initiative is of D.Net, which created more than 30,000 pages of Bangla language content targeted for rural people addressing their livelihood problems (www.jeeon.com.bd). Another large web site www.abolombon.org is dedicated to the issues of human rights and facilitates legal practitioners accessing full text of laws, explanation of laws, addresses of legal aid institutions etc. Another local language web site is www.gunijan.org, which promotes eminent citizens of Bangladesh for the young generation. A new portal www.ruralinfobd.com came up in late 2007, which in many ways is similar to D.Net's www.jeeon.com.bd except some content on small and medium enterprises. Other good websites with local language content are: www.ghatbd.com, www.knowledgebank-brri.org,

www.versityadmission.com, www.jeebika.com.bd.

The government of Bangladesh in collaboration with UNDP Bangladesh published many government forms in digital format, both in web site [<http://www.forms.gov.bd>] and CD-ROM format. A number of forms are now possible to download free of cost and accepted in government offices. Out of 40 ministries listed in the web site [<http://www.forms.gov.bd/eng/ByMinistry.aspx>], only 8 ministries partially released their forms. The forms which are downloaded by the citizens are: passport application, visa application, citizenship form, pension form, Internet connection (BTTB), birth registration, income tax return, and driving license. Availability of forms facilitates citizens to get government services in less time and often they can avoid facing rent seeking behavior of the government officials. The web site is bi-lingual and thus can be used by any literate person. Those, who cannot read, are now able to receive forms from telecenters, which are now becoming popular in rural Bangladesh. One important event in the history of access to government information took place in 2008 is the launch of website of Bangladesh Government Press or BG Press (www.bgpress.gov.bd). BG Press is the single point of publication of all gazettes and documents related to functioning of the government and state. Initially, the web site provides most of the gazettes published in 2008 and partially of 2007. This website fulfills the needs of many professionals, who faced significant difficulties in finding government information.

Box 1: D.Net's Demand – driven Digital Content: Unleashing Poverty Alleviation Potential of Access to Information

The content development at D.Net is unique in many ways. First of all, the approach was research based, which focused on the information needs, identified by the rural communities, and cognition level of end-users. The research identified two types of users: users, who can browse content themselves, and, infomediary [human interface between the digital content and ultimate users], who browses content for the illiterate end-users. Thus, the raw content, collected from various domain institutions, was converted into easy-understanding form. The text content was supplemented by picture. D.Net also researches and develops animated and audio-visual content as in many cases text and picture is not enough to explain something to the end-users. The research is on-going and it focuses on whole value chain of livelihood issues to be captured in the content. The content areas are agriculture, health, education, income generating activities, disaster management, awareness, employment, directory information. The rural people visit rural information centers and browse content and solve their livelihood problems. Hundreds of users could either save cost of their livelihood, enhance income generation opportunities, or protect themselves from potential loss or damage, which was not possible if they did not have access to livelihood content [see case studies at http://www.pallitathya.org/en/case_studies/index.html].

This demand-driven approach towards content development opens a whole new area of social entrepreneurship. The content is now in demand in rural institutions. Rural development organizations now buy the content for dissemination in their intervention areas.

The content-based approach gives a new direction to the global telecenter movement. Earlier, a telecenter was essentially a technology learning centre and communication centre through Internet and phones. Now, telecenters are able to provide the core service – information and

knowledge service. The content also plays an important role in improving access to information, which is an economic resource. As poverty is an outcome of access to resources problem, access to information is the new dimension in poverty alleviation discourse. Digital local language content and its dissemination system through ICTs are thus directly linked with poverty alleviation.

The government under "access to Information" project operated from Chief Advisor's office of the caretaker government has identified 39 'quick win' projects for providing online services to citizens. majority of the projects related to creation of online database (36%), followed by projects for SMS based citizen services (15%), online submission of documents (19%), Helpline for citizens of city corporations' services (6%). The other projects are digital content (4%), connectivity (4%), dynamic websites of government institutions (6%), services to be delivered through telecenters (4%) [CAO, 2008].

The study shows that the users of the public access venues gradually integrate ICTs into their daily routines depending on their involvement in economic activities. People involved in business, students, journalists are most frequent users of cyber café. On the other hand, adolescent boys and girls (both student and out of school), farmers, professionals, house wives are the most frequent users of the telecenters. Libraries are generally used children and adolescents and also some youth seeking job (doing newspaper search). Above 40% of the non-urban users of telecenters use to come almost everyday, whereas in case of urban users, these number is only 20%. This is surprising. In case of cyber café, the daily visitors are only 10%, which means most of the users are incidental users. For non-urban community libraries, they are very popular to a small segment of the population, who visit almost everyday (above 36%) or two-three times in a week (above 47%). Public library is less popular than community libraries and they are less integrated into the daily life of the population for various reasons, mainly lack of updated resources.

Considering the annual number of users of the public access venues, one can conclude that social appropriation of technology is yet to take up for all three types of venues except for cyber cafes. Considering the ratio of population visiting the venues and total area the venues intend to cover, majority of the population is still to use the venues for their livelihood purposes. For telecenters and libraries, annual non-urban users are more in numbers than in urban areas. Probably alternative points of access like cyber café are available there. For example, average annual visit to cyber cafes is 12000, which is way higher than visit to all other venues, both for urban and urban areas.

Other Content Needed:

The users identify a number of areas, where the available content are not adequate to fulfill the demand. Particularly, they mention about knowledge organic farming, real time information on disaster forecasting, non-farm income opportunities, job opportunities abroad, information about latest government programs for supporting vulnerable groups in rural areas. Directory information service is available but still not adequate.

Local Initiatives to build needed content:

D.Net has been working to develop directory database of services providers, who are important to

non-urban users. The database is named: Jeeon-Thikana (www.jeeon.com.bd/thikana). By end of this year the database will include more than 20,000 entries from 20 districts of the country.

Source: www.jeeon.com.bd/thikana

4.3.3.6 *Services & Information Available in Local Languages*

Describe the availability of services and contents relevant to human development that are available in **local languages** in this type of venue? (i.e., info on health, education, government services, etc)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Mentioned above

4.3.3.7 *Types of Uses*

What do people USE the venues for (most frequent kinds of information & services people seek in them, activities they carry out in them)?

(iii) If appropriate, indicate any specifics that apply to Digital ICT services alone.

Refer to section 3.4 Charts: Information Needs and complement here as needed:

The major usage of the ICT in the telecenters varies in urban and non-urban locations. In urban telecenters Internet browsing is the most used service (37%), followed by email (36%), chat (17%), blog and social networking (7%), commerce and business (2%) and phone/video phone (2%). In case of non-urban telecenters usage pattern is more dispersed. Highest use remains in web browsing, however, the share of use is less than in urban telecenters (16%). The other usage are: computer learning (15%), watching educational CD (14%), email (11%), commerce and business (11%), phone and video phone (8%), chat (6%), watch entertainment CDs(6%), blog and social networking (5%), games (4%) and desk top publishing (3%).

Most sought after information category in non-urban and urban telecenters is education (24% and 26% respectively). The users of urban telecenters seek information also on job (23%), personal (12%), entertainment related (10%), health (10%), news (7%), awareness related (4%), business information (3%), agriculture (1%), government services (1%), non-farm economic activities (1%). On the other hand, users of non-urban telecenters seek agriculture information (15%), health information (13%), non-farm income opportunities (11%), news (10%), job (4%), law and human rights (4%), government services (3%), entertainment (3%). The analysis shows that demand for agriculture information is higher in non-urban telecenters than in urban telecenters. Non-urban users seek information on law and human rights. Demand for information on non-farm income opportunities and news is higher in non-urban areas than in urban areas.

Mobile is mostly used for communicating with friend and relatives. In many cases mobile phone is used to connect livelihood experts. Digital camera and photo printer are used for taking photographs. These photographs are used for students, micro finance borrowers, applying for jobs and broadly family entertainments. In some telecenters they do use weight machine, PH testing equipments, soil testing devices.

As mentioned earlier, many telecenters organize various activities involving community groups. Children are invited to watch entertaining and educational movies afternoon in many centers. Furthermore, pre-school learning is arranged in a few telecenters. Big screen movies are also shown to the community people in the evening.

4.3.3.8 Number, Type and Frequency of Users

Refer to section 3.4 Charts: Information Needs, **Error! Not a valid result for table..** Complement here as needed:

As was mentioned earlier, in urban telecenters three-fourth users are male and only one-fourth are female users, whereas, non-urban telecenters are visited by mostly women (61%). Majority of the users of urban telecentres are from middle income while while majority of the non-urban telecentres are from low income group. This is a manifestation of equitable access by underprivileged group in non-urban areas. People of age group between 19-45 years (93%) are the dominant users of urban telecenters, whereas in non-urban areas 61% of users belong to this group. More than one-third of the users are of age between 15-18 years. Both senior citizen (2-3%) and children (2% only in non-urban telecenters) are missing. Only community libraries have some visitors (15-17% of total users) from this age group. Users with education level upto only elementary level (40%) visit non-urban telecenters. This group would be excluded if there was no telecenters in non-urban areas. In case of urban telecenters, 96% have at least high school level education. Number of visitors without education is still low in non-urban centers.

4.3.3.9 Users Capacity to use information and services offered

What is the overall capacity of the users to take advantage of public access to information & communication resources, differentiating by applicable Equity of Service variables (Form 1c)?

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

In most cases user take help of the telecenter workers in accessing different services of a telecenter. It is more prevalent in non-urban areas. It happen mainly lack of knowledge and skills of using ICTs by rural people. In urban areas people do have skills and know-how about ICT usage.

4.3.3.10 Training Courses for Users

Describe training courses offered to the public at this venue, and if they offer some kind of testing and certification.

Training courses: A few telecenters offer job skill training, like non-farm skill (food processing, handicrafts, home made textile etc)

ICT specific training courses: Most common training offered by telecenters is basic computer training. In some telecenters they do provide training on database, web design, mobile phone repair, desk top publishing applications.

4.3.3.11 Integration into daily routines

How easy is it for users to integrate the information and services offered in this type of venue into their daily lives? (offer concrete solutions to their needs and problems, make it easier to solve them at this venue than in other places)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

The telecenter users are mostly regular clients. The survey shows that 74% of the users are regular or more than regular clients. In case of non-urban users this share is 89%. Almost half of the users are daily users in non-urban telecenters. However, total annual turn over is still low probably due to lack of appropriate campaign of the services provided by the telecenters. People seek various kinds of information from the telecenters, which are provided using off-line content and on-line content. The users are happy to go to social networking sites and shares ideas and exchange moments with the counterparts at home and abroad. Job search is also a good purpose for the youth. The telecenters also help in filing application for a job. The local language job portal www.jeebika.com.bd provides job information for people with even elementary education. Application for diversity visa to US has become possible for the non-urban people through the telecenters. The massive use of the Internet takes place during publication of result of public examinations. This kind of use of these venues shows that potential number of users may be very high if people know fully about the scope of the use of these venues. Adding more e-government services probably would play a vital role creating habit to visit telecenters by majority of the community population.

4.3.3.12 Users Perceptions about the Venue

What is the general perception or opinion of the population about the venue (not necessarily its specific services, but the venue itself: ie, what do people generally think about libraries? Are they places that are “cool” or “only for elites” etc?), differentiating by applicable Equity of Service variables (Form 1c)? This includes perception by people who do not use the venue...

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

User perceive the telecenters as a useful place for meeting information needs. However, cost is still a concern. They feel disturbed with power interruption. in the context of high poverty in the non-urban areas, public access venues like telecenters will get greater importance in coming days. In non-urban telecenters female users are majority due to presence of female information workers. This is a success story. Although there is no apprehension by the parents of children to send their children to telecenters, probably lack of proper attention is a reason, why poor number of visit of children. In a few telecenters, children are the majority users, however this data has been lost in the average.

4.3.3.13 Social Appropriation of Information and Generation of New Knowledge

What activities, products and services are users undertaking that exhibit new levels of social appropriation of technologies and generation of knowledge? For example, how are users generating and disseminating new knowledge, products and services through their use of this venue? (see category 13 in Real Access Framework for Social Appropriation of Technology).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Research findings show that users can apply the collected information for their benefit. The estimation of benefit of investment shows that for one dollar investment in telecenter can bring benefit to the community equivalent to 18.33 dollars [Raihan, 2007]. The capacity to apply knowledge shows that some degree of social appropriation has been achieved in non-urban telecenters.

4.3.3.14 Trust, Safety & Privacy

What is the general perception or opinion of the population about the safety, security and privacy (TRUST) of the information and services offered in this venue?

Seeking information through ICTs is a new phenomenon in the non-urban context. It is an issue of behavioral change, which does not happen in a short period of time. The high share of regular users means that those who visited the centers found them useful for their life and livelihood. However, there is a disconnect between satisfied users and people who did not visit the centers. The introduction of female infomediary visiting women at their houses can act as a trust building factor. Most of the women share their health related problems to the infomediary and experts for remedy. However, location remains a factor for many female users, specifically for those locations at growth centers. The quality of infomediary also plays an important role in trust building. Audio-visual content was identified more useful than text and picture based content. People believe what they see and hear.

4.3.3.15 Gaps and Opportunities in information & services offered

What other information gaps & opportunities exist, which are not being met? (other information / services people need that are not being met there and could be offered, especially through Digital ICT services)

The study revealed that in some cases there is a gap in content supply. They mention about knowledge on organic farming, real time information on disaster forecasting, non-farm income opportunities, job opportunities abroad, information about latest government programs for supporting vulnerable groups in rural areas. Directory information service is available but still not adequate. So, more attention is needed in content development.

As female infomediary can attract female users, in the context of women empowerment, such introduction may be replicated in other locations.

There is huge opportunity in Bangladesh to collect and compile indigenous content using telecenter facilities. Indigenous knowledge and practices are easily possible to share with other communities through telecenter network.

The telecenters can earn not only from the community users, they can do outsourcing jobs transferred from urban locations. A few telecenters already do data collection and data entry job. The telecenters can be used to spread important government information.

The analysis shows that collaboration among different kinds of venues can enhance effectiveness of the venues. The content sharing may be most easy task to start with. Combination of service

and activities of community libraries can be replicated in telecenters.

4.3.4 Enabling Environment

2 – 3 Paragraphs:

What is your overall assessment of the ENVIRONMENT ecosystem in this type of venue (local economy, national economy, legal and regulatory framework, political will & public support, regional and international context)?

The overall environment for NGO activities in the country is favorable. Although resource mobilization from donor sources has become a challenge, still there is room for innovative ideas. Resources are still available for integration of ICTs in the mainstream development activities, which these types of venues may utilize. The true community participation is strength of these venues for attracting resources. Operation of telecenters commercially is much easier than as a social organization, one can just get a trade license and start business.

4.3.4.1 Local & National Economy

Describe the local & national economic environment and how it affects public access to information & communication in this type of venue (refer to & complement economic summary in country assessment, section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

Considering the poverty situation in the country, this type of public venue will be very effective to complement mainstream development efforts. The low income group will need this venue for a long time to come. The concentration of poverty is in non-urban areas, thus demand for public access will remain high in this part of the country.

4.3.4.2 Legal & Regulatory Framework

Describe the legal and regulatory framework and how it affects public access to information & communication in this type of venue (refer to & complement economic summary in country assessment, section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

In Bangladesh there is no specific legal requirement for telecenter operation. For running a telecenter one needs either a trade license or a registration from local government institution.

The VoIP, which has been re-launched in August, 2008 is going to play an important role for making telecenters financially sustainable. The reduction of Internet bandwidth price will also help telecenters to get better connectivity at cheaper rate. Thus, Internet based services will be able to improve their quality.

4.3.4.3 Political Will & Public Support

What is the level of political will and public support for this type of venue? (refer to & complement section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

The Poverty Reduction Strategy Paper (PRSP) included a plan to establish telecenters in the country. The government has taken initiative to introduce services which may be delivered through telecenters. Furthermore, the government also has taken a number of initiatives related to telecenter establishment. Such intervention would create a more inclusive environment, as low income people, according to the survey, are still struggle to pay for services.

Two important support is required form the government, one, financing through existing lending windows of state-owned banks, and free Internet connection in non-urban telecenters. The government already announced free Internet connection in primary schools, and 70% discount in secondary school. The irony is there isn o computer in primary school and penetration of computers in secondary schools is also low. Whereas, the telecenters, which are working in non-urban areas and struggling to meet the operating cost, remained out of the purview of this decision.

4.3.4.4 Organization and Networking

Describe if the facilities in this type of venue organized in any network, association or other collective body? (ie, national public library system, telecentre franchise or network, etc)?

Bangladesh Telecenter Network (www.mission2011.net.bd) comes as a networking body of telecenter practitioners in the country. This network works with a vision of having 40,000 telecenters across the country by the year 2011 through multi-stakeholder partnership. This network emerged in 2007 for fostering telecenter movement in Bangladesh. The network is based on the idea of maximizing the advantages of information and communication technologies (ICTs) through sharing of experiences and knowledge within the components of the organization. In December 2007, BTN organized two-day event for launching Mission 2011 – a movement for building a sustainable information and knowledge system for the poor and the marginalized by 2011, the 40th anniversary of Bangladesh.

The goal of Mission 2011 is to promote initiatives taken by private sector, NGOs, research institutions and other stakeholders for building various models of telecenters in Bangladesh and in other developing countries so that by 2011 all citizens of this country would have access to a telecenter for getting communication, information and other services for improving their livelihoods and quality of life. So far, 20 organizations have become members of the network. The action plan of the BTN consists of two distinct but inter-related objectives: One, Building awareness among the stakeholders including the government about the importance of building an information and knowledge system for the poor through establishment of a network of ICT-based telecenters; and supporting and facilitating functioning of grassroots level telecenters through offering a set of services, which are crucial for ensuring sustainability and scalability of the telecenters including sharing of contents [www.mission2011.net.bd].

4.3.4.5 Partnerships

Describe notable public-private partnerships in support of this type of venue.

If appropriate, indicate any specifics that apply to Digital ICT services alone.

BTN has partnership with telecenter.org, which supports BTN for building the network and introduce some effective support facilities for telecenters operating across the country. One important support is a reference desk, where a telecenter practitioner can ask any question related to operation of a telecenter (<http://mission2011.net.bd/support/>). This is a local language portal. Under the initiative a content mapping exercise is also going on, which will be useful for centers to design more services. A GIS based database is under process, which will be launched in November, 2008. telecenter.org also supports exchange visit of the telecenter operators so sharing experiences.

BTN has also partnership with International Rice Research Institute for providing agriculture content for the telecenters in Bangla language.

BTN is working with Intel World Ahead Program for supporting 10,000 telecenters with turnkey technology solutions and training support of the entrepreneurs.

4.3.4.6 Other Environment Factors

Other factors in the environment that affect access and use of information in this kind of venue, not covered above?

Telecenter movement started to flourish after second phase of the World Summit on the Information Society (WSIS), although different countries had their own process of germination of building information system for the disadvantaged communities. telecenter.org, a consortium of Swiss Development Corporation, International Development Research Centre (IDRC), and Microsoft Corporation, played a very important role in strengthening the telecenter movement across the globe. Global Knowledge Partnership also played a catalytic role in crystallization of the concept of cooperation and sharing among the national players. Mission 2007 of India was a learning ground for national players of telecenter movement in many countries of the world. The global development promoted national players to come together to create synergy and maximize benefit for the disadvantaged communities in Bangladesh. The immediate doables are:

- Priority issues in the E-Governance Horizon Scan Report published by the CA's office
- Making e-Governance a National Priority
- Improve Connectivity, Increase Access and Lower Costs
- Enhance Human Capacity Development, Knowledge Creation and Sharing
- Foster Enterprise and Entrepreneurship for Sustainable Economic Development
- Establish and Support Dedicated Initiatives for the ICT Inclusion
- Promote ICT for Health Care

- National Effort to Support Local Content and Applications Creation

☒ Right to Information: Bangladesh is now in the process of enactment of the Right to Information Act, 2008. The act will pave the way for the citizens to get access to information of the government, which will play an important role in citizen’s empowerment and efficiency and good governance. The telecenter movement is the direct beneficiary of the act, as the main mandate of the telecenters is the provide information services to the citizens. The activities of the telecenter will facilitate government information and services to reach the common people.

☒ WSIS Geneva Plan of Action: Bangladesh is a signatory of WSIS Plan of Action 2003. Access to information and knowledge was one of the core areas of WSIS Plan of Action. Thus telecenter movement is a direct force for implementation of WSIS Plan of Action by the government.

☒ PRSP: The poverty reduction strategy paper of Bangladesh emphasizes on investment in human resource development for ICTs, promotion of use of ICT for ensuring good governance and increasing capacity of the poor to manage disaster, and Increase access of the disadvantaged groups to ICT. For increasing access to ICTs by disadvantaged groups the government has planned the following:

- Plan in PRSP to Establish Telecenters by 2007 in All Upazillas
- Establish telecenters in different parts of Upazillas to provide information regarding agriculture, food, education, health etc;
- Provide wireless local loop (WLL) technology in the remote areas;
- Deploy 5 percent of telephone in rural areas through private investors under fixed-line telephone services;

Millennium Development Goals: The telecenter movement plays an important role in achieving MDGs in Bangladesh. Access to information is one of the key factors in poverty alleviation, accessing justice, education and other social rights and opportunities. The telecenter movement can play a catalytic role to own and implement targets of the MDGS.

4.3.1 For Publicly Funded Venues only: Revenue Streams

This section is meant specifically for publicly-funded venues (public libraries, national connectivity programs, etc).

4.3.1.1 Budget

What is the total budget for this public access venue system (applies especially for libraries, answer for other venues if applicable and if available)?

Total Budget for Fiscal Year fiscal year

Local currency name amount (local currency)

Approx. equivalent in USD based on exchange rate of on date .

4.3.1.2 *Relative size of budget*

How large (or small) is this budget in relation to other funding streams? (this is a way to show, in financial terms, how much the government cares about information and public access as compared to a variety of other issues in the country).

Relative Size of Budget for same year	Total budget (local currency)	Comments
Total national budget		
Education		
Other (name)		
Public Libraries		

Other Comments:

4.3.1.3 *Sources of funding*

What are the sources of funding for this public access venue system?

Sources of funding:	Approximate % of total budget	Comments
Government sources:		
International donors:		
National donors:		
User fees / services:		
Other (name)		
Other (name)		
Other (name)		

Other Comments:

4.3.1.4 *Paths and Flows of resources*

How do resources get allocated and disbursed to the actual venues? For the principal funders, and especially for the public sources, what is the flow of funds? How are the funds raised (what tax stream), what path do the tax streams flow before they get to the specific venues? Who makes decisions about this funding?

4.3.1.5 Fees and Cost Recovery

Describe if there are user fees or any other type of cost recovery. How does it affect service delivery and usage?

4.3.1.6 Cost Categories

What are the main cost categories in the operation of this kind of venue? (% of total annual budget)
If appropriate, indicate any specifics that apply to Digital ICT services alone.

Cost Categories for Operation:	Approximate % of total budget	Comments
Staff (salaries, benefits)		
Building Infrastructure		
Utilities		
Staff Training		
Computers / Technology		
other (name)		
Total	100%	

Other Comments:

4.3.1.7 Recent changes and future trends

Describe any recent changes and anticipated future trends in the funding and revenue streams for this type of venue in the country. Have funding levels risen or decreased dramatically over the past few years? What is the outlook for the foreseeable future?

4.3.2 Case Example for Venue # 3: Telecentre

Provide a short descriptions and commentary for each type of venue, offering a realistic sense of what the venue looks and feels like in its day to day operation, the kind of people who visit, and the kind of services

they receive. Also, the case example indicates what makes the case unique or what features are commonly shared with other venues. A photo and short quotes will make it even more real.

Benefit to Investment in a Telecentre: Pallitathya Experience

Common access point is a globally accepted solution to the problem of lack of overt resources like ICTs. Community beneficiaries would not have to own computers, phone, television or other ICTs, as they can come to a common access point and use ICTs free of cost or for a small fee, with the help of a ICT literate person if necessary. The common access point has numerous synonyms: telecenter, community information centre, community e-centre, community multi-media centre. The common access point through which D.Net conducted experiment is called Pallitathya Kendra (PK). As an example of telecenter case, we are explaining about Pallitathya Kendra.

D.Net established four PKs in 2005 in four remote villages of Bangladesh to learn from the ground how the holistic model works. The first PK was established in September 17, 2005 in Selabunia village of Bagerhat district. Generally PKs get hold of multimedia computers with UPS and power back up system, mobile phone, scanner, printer, digital camera, radio, bi-cycle, weighing machine etc. PKs are connected to the internet using EDGE modem. PK also obtains relevant stationeries and furniture. Most importantly, all PKs were equipped with detailed information management system including system of tracking each community beneficiary. A system of offering user ID card is deployed for tracking multiple users of services and facilities at a PK. Some of the facilities in PKs are free for the community and others are against affordable charge. It was realized from the experience of interventions of the government and NGOs that free facilities can not attract community beneficiaries for a number of reasons including doubt about their quality and motive.

The look of a PK depends on availability of resources and local demand of information, knowledge, communication and other services. A PK flourishes in an ecosystem, where community beneficiaries are at its centre. The design of a PK depends on the state of system elements of the ecosystem. For example, in a place where there is no electricity, the power supply system should be control and equipment should be low power consuming and cost-effective. In the coastal belt, water pH test kit would be useful rather than soil test kit. Nebuliser rental service is introduced in a PK as there is high prevalence of asthma among children and senior citizens and village doctor can not always afford to have own nebuliser.

Generally PK functioned with 3 staffs; one Centre Manager, one Mobile Infomediary (Female) and one Infomediary (male/female). Number of staffs varies between 2 to 5. PK is open for the community people six days a week, except national holidays. The working hour of PK is 0900 – 1700 hours. The opening day and working hour varies with location of PKs. Some of PKs is open seven days a week, except national holidays. In that case, the schedule for the information worker make in such a way so that each worker can enjoy a weekly holiday. In some locations PKs open at 0700 hours and close at 1900

hours. PK provides three types of services for the community:

Livelihood information service: Deliver livelihood information using ICTs is the core service of PK. Rural people can access to their required livelihood information (agriculture, health, education, law and human rights, appropriate technology, non farm economic activities, disaster management, employment, government services, directory information etc.) using the following channels and modes:

Digital offline content (Jeeon IKB) browsing

Through mobile phone based Helpline

Watching audio-visual content

Internet (online content) browsing

Issue based camp (face-to-face consultation with expert)

Ancillary services: Ancillary services have been integrated with PKs for maximum utilization of resources and equipments. Types of ancillary services vary with the location and demand in the community. In general, the available ancillary services are:

Email for communication

Soil test for farmer for measuring fertilizer requirement in crop land

Pond water pH test facilities for fish cultivation

Photography

Composing and printing

Mobile phone call for personal use

Body weight and height measurement

Diversity visa application

Printing and fill-up government forms for passport, visa, driving license etc.

Nebuliser use

Blood pressure measurement

Everyday one/two Infomediary stays in the PK to provide services to the people. Infomediary moves in field to collect queries and carry the response next day by searching out from the PK content database. Infomediary conducts group meeting with different professionals for promoting PK services. The Infomediary collects livelihood questions from the meeting and provide answer either in the next meeting or invite them to PK for receiving answer. The Mobile Infomediary goes to households in the village and listens to the problem particularly from women and physically challenged. If any one

wants to ask a question and mobile Infomediary can understand that the response of question is available in the PK content database then she does not forward the question to the Helpdesk, rather she brings the question to PK and searches out the answer from content database and provides it to them who asked it. PK organizes issue based camp that helps linking local service providers and rural people for better service. The Infomediary also send feed back to the D.Net head office on new content requirement and improvement of quality of existing content.

Generally PK is established at a cross-section of roads and closer to public gathering place so that community beneficiaries can visit PK conveniently. Experimental four PKs were established for getting different flavor. One was established inside local government office with active support of Chairman of local Union Parishad (UP). The idea was to create a demonstration effect for other UPs. One was launched with local community based committee near a bazaar. One was established in collaboration with a local NGO and one PK was under direct control of D.Net. Experience shows that PKs with local ownership were well accepted by the community beneficiaries and could create benefit to them based on their already established community relationship.

A number of cases have been developed by the Pallitathya initiatives in the community. People saved their livelihood cost, increased their family income and prevented losses through implementation of information and knowledge received from PK. Poor farmers were able to save huge loss of crops, students benefited from timely delivered education information, women benefited from law and rights related information services from PK. Woman and physically challenged people benefited from the door step services. It was found that the benefit to the community people is 18.33 times higher than the investment made for setup and operation of PK (Benefit on Investment exercise). Low income group people received more information and knowledge services.



Photo: Woman is sharing her problem with help desk expert through mobile phone at Pallitathya Kendra

4.4 Venue # 4: Cyber Cafe

4.4.1 Overall Venue Assessment

Provide a broad picture of the public access information landscape in this venue, informed by the results of this research.

2 – 3 Paragraphs:

What is your overall assessment of public access information in this type of venue?

The cyber café culture is hardly ten years old in Bangladesh. In 1998, a fast food shop cum-ice-cream parlor at Banani, Dhaka for the first time introduced on-payment internet service for their customers. Later, the business spread fast in different posh areas of the capital city. There are around 700 cyber cafes; all of them are located in urban areas and concentrated mostly in district towns. Geographically they are concentrated in major 11 cities and towns. Critical mass of clients live in these locations. Thus, despite high penetration of other ICTs, people still visit cyber cafes in a number, which is highest among all types of venues. Annual average number of visitors is 12000.

Among the different public access venues, cyber cafes least meet requirements of underserved communities in urban areas. The users of the cyber cafes are capable to handle computer and surf Internet independently, only in case of technical trouble a person from cyber café assists a user. A person spends most of the time in cyber café for chatting, sending and receiving mails and sending greetings messages to friends and relatives. The browsing of websites and using net for business purpose is limited. Limited number of students browse educational websites. Few visitors spend time in browsing and collecting latest articles on various issues. Cyber cafes are popular to limited professional groups like students, teachers, journalist and businessman. Most of them are male. Interestingly, children are rare clients of cyber cafes in Bangladesh.

The general users have perceptions that the cyber cafes are costly for them. More than one-third of the users opine that services of the cyber café are costly. As a result, the rich and upper middle class people remain the major customers. The research identified that 93% of the users of cyber café belong to middle and high income groups.

For cyber cafes most critical barrier is cost of access. Location of the venue is one of the factors that is affecting equitable access. Most of the cyber cafes are located in market places, where women may feel barrier to visit the venue. Probably, for that reason two-third of the users in cyber cafes are male. The users ask for various information to be found from the web, but the operators can not help as they are also reluctant to have comprehensive knowledge about what is available on the Internet.

Cyber cafes provide maximum privacy in use of Internet compared to other venues. Female users do not feel safe to come to cyber cafés. Although many of these users have computers and internet connections at their home, they prefer cyber café for a number of reasons. Half of the cyber cafes provide fill privacy and average number of visitors in those cyber cafes is higher. It means users like privacy in cyber cafes.

As there is an indication that increase in private access may reduce public access, the owners of cyber cafes think to innovate new services. One of them is to search content and provide content-wise service. The owners are not aware about the local language content. Knowledge about local language content of the owners would increase users further. Children are scanty in the cyber cafes as a whole in Bangladesh. There may be special drive for them, given that safety of browsing is ensured and parents feel safe to send their kids.

The urban population is growing at a steady pace in the country, indicating that the demand for services of the cyber cafés will grow despite the rise of private access to Internet. The average national income is also growing overtime. Thus, the low income group is expected to have better purchasing power, which will further enhance market for cyber cafes in district towns.

It is expected that the reduction of bandwidth rate to USD 400 for 1 Mbps duplex connectivity would improve profitability of the cafes, and the perception about cost of cyber café use would change.

4.4.2 Access

2 – 3 Paragraphs:

What is your overall assessment of ACCESS ecosystem in this type of venue (physical access, appropriate technology, affordability)?

About one third of cyber cafe users are from high income group while half of the users are in middle income group. Only 7% of low income people visit a cyber cafe, which means poor people have limited access to cyber cafes. Cyber cafe is the second most elitist venues after the public libraries. In cyber cafes, 94% of the users are within the age of 19-45 years, which means adult students and professionals dominate usage of the cyber cafés. In terms of education level, the users of the cybercafés are mostly highly educated, 87% of them are at education level above 12 years of schooling. The cyber cafes are less public than telecenters in terms of diversity of users. Only 13% of the cyber café users use other venues, basically for emailing, newspaper reading and ICT skills training.

4.4.2.1 Physical Access

Describe how accessible this venue is to various population segments, differentiating by applicable Equity of Service variables (Form 1c), especially the differences between urban and non-urban settings.

If appropriate, indicate any specifics that apply to Digital ICT services alone.

The cyber cafes are generally located in urban areas, where as telecenters are predominantly located in rural areas. On the other hand, libraries are available both in semi-urban and rural areas. The cyber cafes are generally used by limited professional groups like students, teachers and journalists.

It is to be mentioned that physical facilities of the cyber cafes are not suitable for physically handicapped people (e.g., absence of ramp) and the content are not accessible for visually impaired citizens.

4.4.2.2 *Appropriate Technology & Services*

Describe how appropriate the technologies, services and information offered in this venue are to the population, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

A cyber café is generally equipped with 3 or more PCs. The standard sets of equipments are: web cam, printer, scanner, CD-writer, camera, photo printer, video player, fax machine, spiral binder, photocopier, CCTV etc. The cybercafés generally provide access to Internet. The detail service list is provided below in section 4.4.3.3. However, most important usage of Internet are: email, Internet browsing, chat, phone or video conferencing, games, ICT skills training, commerce and business information exchange and social networking. The users generally seek information on educational opportunities (25%), personal (18%), news (17%), entertainment (11%), health information (14%), information about government services (7%), information on agriculture (4%), business information (2%), and job information (1%).

4.4.2.3 *Affordability*

Describe how affordable the technologies and services offered in this venue are to the population, differentiating by applicable Equity of Service variables (Form 1c).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

The services offered by cyber cafes are only on payment, whereas other public venues offer both free-of-cost and on-payment services. Specially, the activities both in libraries and telecenter are free of cost and creating bondage and values among the villagers and provide awareness on many important social issues. The general users have perceptions that the cyber cafes are costly for them. More than one-third of the users opine that services of the cyber café are costly. As a result, the rich and upper middle class people are the major users of cyber cafe. Only 7% of the users are from low income group.

4.4.2.4 *Fees for Services*

What fees or other requirements exist in order to access and use the information in the venues? (registration, user fees, restrictions to certain populations)

If there are fees: What do these fees buy?

Some cyber cafes offer the users' identity registration with an initial subscription fee. The subscription fees vary from venue to venue. Users have to pay 30¢- 45¢ per hour for internet browsing.

Indicate amount in local currency BDT 20-30 per hour

Equivalent in US Dollars: 30¢- 45¢

Date of estimate August 12, 2008

and local currency name Taka

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Explain any salient differences in the services offered in different regions, sizes or other variables of significance:

4.4.2.5 Geographic Distribution

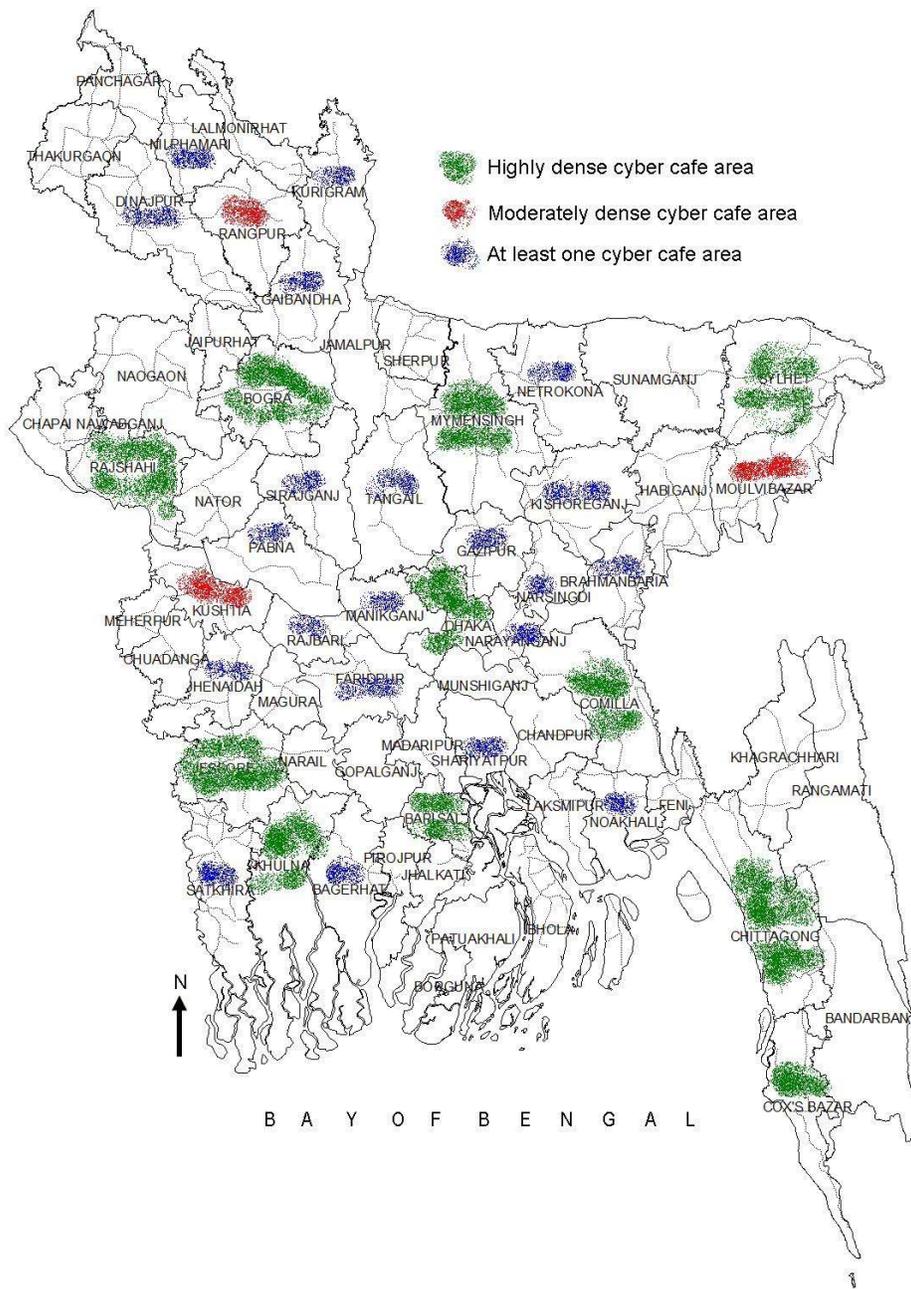
What is the distribution of the venues in terms of their geographic location?

Complement any details not already included in section 2.1: Venue Selection.

Cyber cafes in Bangladesh are located in district towns and are densely located in Dhaka and Chittagong. Out of 700 cyber cafes nearly half are located in Dhaka city. Other major locations are: Khulna, Mymensingh, Rajshahi, Sylhet, Bogra, Jessore, Comilla, Barisal, Cox's Bazaar etc. Ninety percent of all cyber cafes in Bangladesh are located in these cities. As internet service is being extended to small district towns in phases, the culture of cyber café is also gradually spreading.

4.4.2.5.1 Map

If available, insert a map that displays the geographic distribution of this type of venue in the country (expand to the size you need).



Description of map:

The map shows that only a few cities are with good number of cyber cafes (marked in green). There is no cyber cafe in a number of districts, particularly in the three hill tracts districts (Southeastern part of the country).

4.4.2.6 Other Factors affecting Access

Other factors that affect equitable access to public information in this type of venue, not covered above?

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Four major barriers have been identified by the users in using cyber cafes: cost, location, hours of operation, and electricity failure. Although cost of browsing is much lower than in other South Asian countries (30¢-50¢ per hour), compared to per capita income this is probably still high. Location of the venue is one of the factors that is affecting equitable access. Most of the cyber cafes are located in market places, where women may feel barrier to visit the venue. Two-third of the users in cyber cafes are male. Illiterate and ICT illiterate people can not access information from cyber cafe. Because, a limited number of venue operator provide assistance to learn how to use internet only, no assistance for searching information.

4.4.3 Capacity & Relevance

2 – 3 Paragraphs:

What is your overall assessment of CAPACITY ecosystem in this type of venue (human capacity, locally relevant content, integration into daily routines, socio-cultural factors, trust in technology, social appropriation of technology)?

Capacity of cyber cafes in terms of number of computers can be divided into three: small cyber cafe (3-5 PC), medium cyber cafe (5-8 PC), and large cyber cafe (PC above 8).

The users are generally happy with the content, which are available and known to them. Most of the websites, the users use are in English, both from Bangladeshi origin and foreign origin. However, they are little aware about Bangla language web sites. The demand for the services does not require probably knowledge about Bangla content.

4.4.3.1 Staff Size

How many people work in a typical facility for this type of venue? (full time-equivalent employees or contractors; describe any significant variations; i.e., large, medium and small libraries in the country)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

In general, 1-4 persons work in a cyber cafe. It may vary with the size of cyber cafe. In small cyber cafe (3-5 PC), the staff size is 1-2. In medium cyber cafe (5-8 PC), the staff size is 2-3. In large cyber cafe (PC above 8), the staff size is 2-4. Most of the cyber cafe operators and staffs are male.

4.4.3.2 Staff Training

What is the overall capacity of the staff (ie, librarians, telecentres operators) to help users access and use public access to information & communication services offered in this venue? Differentiate by applicable Equity of Service variables (Form 1c).

(vii) If appropriate, indicate any specifics that apply to Digital ICT services alone.

(viii) For Public Libraries, indicate if Library School training is available and/or required for librarians.

Most of the cyber cafe managers and staffs have education at least of “some college or university

study" to "some post graduate degree". Some of them have formal ICT skills training. However, most of them feel need of further ICT skills training to operate the cafe efficiently, particularly for including trouble shooting.

4.4.3.3 Services Offered

What kind of services does this type of venue offer to the public? (ie, access to books, magazines; meeting & conference rooms; audio/video programs, computers, internet, other). Include Digital ICT services if offered.

Services Offered	Comments
31. Internet browsing	Educational opportunities, personal, news search, entertainment, health information, information about government services, information on agriculture, business information, job information, commerce and business, games, news paper reading, getting results of public examinations, visiting social networking sites (face book), e-government services, online registration for submission of DV form, submission of job application, online registration for national cultural contest
32. Email	Opening email account, exchanging letters between relatives, sending news to newspaper, exchanging business information, applying for diversity visa to US, for remittances
33. Downloading	Learning materials, games, songs in mp3 format and ring tone of mobile phone, different government forms, games, programming codes, admission form for educational institutions, video
34. IT Enabled Services	Photography, Video Editing, Computer composing, printing, video conference, Net to phone, chatting, blog and social networking, online stock trading, online banking, on line bill payment, video conferencing, scanning, Web page development, CD writing, Conversion of video: VHS to VCD, Handy came to CVD and CD/DVD to CD/DVD, Mobile Phone Recharge, Internet connection at home and office
35. Using application software	Word processing, spreadsheets, PowerPoint
36. Sales	CD, DVD, Games and Software, SIM card for mobile phone, accessories

37.	Repair and maintenance	PC Servicing, Mobile Phone Servicing
38.	Phone	Cell phone, land phone call in country and abroad
39.	Other services	Fax, Spiral Binding
40.	ICT Training	Basic learning
<p>Explain any salient differences in the services offered in different regions, sizes or other variables of significance:</p> <p>Majority of the cyber cafes are limited to offering Internet based services, IT enabled services and use of basic application software. Other services are present sporadically in the cyber cafes. The cyber cafes within market place offer most of the services mentioned in the above list. Besides, repair and maintenance services are offered in nearly 20% of the cyber cafes due to lack of adequate skills and business.</p>		
<p><i>4.4.3.4 Programs for Underserved Communities</i></p> <p>Describe if this venue has programs specifically intended to reach underserved communities, differentiating by applicable Equity of Service variables (Form 1c).</p> <p>If appropriate, indicate any specifics that apply to Digital ICT services alone.</p>		
<p>The cyber cafes do not have any specific programs for underserved community. Underserved community get access to Internet learning in the fairs organized for promoting cyber cafes. However, such fairs are not so frequent organized.</p>		
<p><i>4.4.3.5 Relevant Content</i></p> <p>What type of locally relevant content is available? What else is needed? Who is doing it?</p> <p>If appropriate, indicate any specifics that apply to Digital ICT services alone.</p>		
<p>Available Content:</p> <p>During the survey it was found that users themselves find relevant content on the web. The cyber cafes do not maintain any directory of websites or repository. Even if a user wants to get assistance of operators, in a very few cases they are able to suggest anything. Only job sites, submission of diversity visa application and getting results of public examination are promoted by the cyber cafes. Some cyber cafes sell movies and games in pre-packed form.</p> <p>Other Content Needed:</p> <p>During the discussion, cafe operators mentioned that users demand information about government services, health, business and trade, education, locally available study loan and scholarship etc. Due to lack of knowledge about what is available on the Internet, they can not help users. There is thus need for increasing operators' education to make cyber cafes more useful to the users.</p>		

Local Initiatives to build needed content:

In all surveyed areas, no initiative for building local content was found.

Source: Site Visits

4.4.3.6 *Services & Information Available in Local Languages*

Describe the availability of services and contents relevant to human development that are available in **local languages** in this type of venue? (i.e., info on health, education, government services, etc)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

There is little knowledge among the cyber café operators about the availability of local language content, except availability of the websites of Bangla news papers.

4.4.3.7 *Types of Uses*

What do people USE the venues for (most frequent kinds of information & services people seek in them, activities they carry out in them)?

(iv) If appropriate, indicate any specifics that apply to Digital ICT services alone.

Refer to section 3.4 Charts: Information Needs and complement here as needed:

The most important usage of Internet are: email, Internet browsing, chat, phone or video conferencing, games, ICT skills training, commerce and business information exchange and social networking. As was also mentioned earlier, the users generally seek information on educational opportunities (25%), personal (18%), news (17%), entertainment (11%), health information (14%), information about government services (7%), information on agriculture (4%), business information (2%), and job information (1%). The users download learning materials, sending news to newspaper, exchanging letters between relatives, applying for diversity visa to US, getting results of public examinations. Some users are more advanced; they use ICT facilities for trading stocks online and also for banking.

4.4.3.8 *Number, Type and Frequency of Users*

Refer to section 3.4 Charts: Information Needs, **Error! Not a valid result for table..** Complement here as needed:

In case of general use, 84% of the users are infrequent users, i.e., they visit the cyber cafes for some specific purposes, which are not related to ICT use. Generally, it is about spiral, binding, purchase of games and video. The regular (8%) and frequent visitors (8%) are involved with purchase of games and video. It is to be mentioned that majority of the visitors of the cyber café come for ICT use. On the other hand, visitors for ICT use mostly in regular (42%) and frequent categories (18%). Only 10% of the visitors come everyday for browsing news sites, stock information, job search and social networking.

4.4.3.9 *Users Capacity to use information and services offered*

What is the overall capacity of the users to take advantage of public access to information & communication resources, differentiating by applicable Equity of Service variables (Form 1c)?

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

Lack of information literacy is the biggest barrier for users to take advantage of public access to information and communication resources. Cyber cafe operators found that 53% users need basic training on internet use and emailing and 33 per cent users need basic computer training for using public access venues efficiently. The users ask for various information to be found from the web, but the operators can not help as they are also reluctant to have comprehensive knowledge about what is available on the Internet

4.4.3.10 Training Courses for Users

Describe training courses offered to the public at this venue, and if they offer some kind of testing and certification.

Training courses: No training offered

ICT specific training courses: Very limited number of cyber cafes offer training courses for the users. They offer only basic computer learning course. There is no testing and certification for this training.

4.4.3.11 Integration into daily routines

How easy is it for users to integrate the information and services offered in this type of venue into their daily lives? (offer concrete solutions to their needs and problems, make it easier to solve them at this venue than in other places)

If appropriate, indicate any specifics that apply to Digital ICT services alone.

The cyber café users are mostly regular clients. The survey shows that 70% of the users are regular or more than regular clients. The cyber café fulfills the need for instant communication for various purposes through email. Email is the single most usage of the Internet in the cyber cafes. Users also communicate through chat, phone and video conferencing, depending on the type of needs. People seek various kinds of information on the net, which is possible through Internet browsing. The users are happy to go to social networking sites and shares ideas and exchange moments with the counterparts at home and abroad. Some people find the Internet for business purpose. Job search is also a good purpose for the youth through the cyber cafes as there are a number of good websites providing news on job and support for application. Many users do not spend on hardcopy of the newspapers; rather prefer to read more than one newspaper online. Application for diversity visa to US has become possible through the cyber cafes. The massive use of the Internet takes place during publication of result of public examinations. This kind of use of these venues shows that potential number of users may be very high if people know fully about the scope of the use of these venues.

4.4.3.12 Users Perceptions about the Venue

What is the general perception or opinion of the population about the venue (not necessarily its specific services, but the venue itself: ie, what do people generally think about libraries? Are they places that are “cool” or “only for elites” etc?), differentiating by applicable Equity of Service variables (Form 1c)? This includes perception by people who do not use the venue...

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

User perceives the cyber café as a useful place for meeting their communication and information needs. However, cost still remains a concern. They feel disturb with power interruption. Only 15% of the users feel that even if they have access to Internet at home, they would come to cyber café, primarily to meet friends and chat with friends and use social networking sites, which they can do in the cyber café without any restriction. This indicates that increase in private access would reduce demand for public access. One-third of the users are female, but still the female users do not think that all venues are safe for them. Parents do not allow children (below 14 years) to visit cyber cafes as they are concerned that unsolicited content may spoil them.

4.4.3.13 Social Appropriation of Information and Generation of New Knowledge

What activities, products and services are users undertaking that exhibit new levels of social appropriation of technologies and generation of knowledge? For example, how are users generating and disseminating new knowledge, products and services through their use of this venue? (see category 13 in Real Access Framework for Social Appropriation of Technology).

If appropriate, indicate any specifics that apply to Digital ICT services alone.

The users are more target oriented in terms of use of information collected through use of ICTs compared to other public access venues. Thus, level of social appropriation is better for cyber café.

4.4.3.14 Trust, Safety & Privacy

What is the general perception or opinion of the population about the safety, security and privacy (TRUST) of the information and services offered in this venue?

Cyber cafes ensure privacy of user which helps to build trust by the users. Cyber café is bringing a remarkable change in the lifestyle of the young generation. Alongside the positive impacts, there are some dark sides of using internet, particularly in cyber cafes. Young people may be exposed to restricted sites. It was mentioned earlier that female users do not feel safe to come to cyber cafés. Although many of these users have computers and internet connections at their home, they prefer cyber café for a number of reasons. Half of the cyber cafes provide full privacy and average number of visitors in those cyber cafes is higher. It means users like privacy in cyber cafes. However, the owners revealed that parents do not feel safe to send their kids to cyber cafes due to perception about free access to adult sites.

4.4.3.15 Gaps and Opportunities in information & services offered

What other information gaps & opportunities exist, which are not being met? (other information / services people need that are not being met there and could be offered, especially through Digital ICT services)

As there is an indication that increases in private access may reduce public access, the owners of cyber cafes think to innovate new services. One of them is to search content and provide content-wise service. The owners are not aware about the local language content. Knowledge about local language content would increase users further. Children are scanty in the cyber cafes as a whole in Bangladesh. There may be special drive for them, given that safety of browsing is ensured and parents feel safe to send their kids. The penetration of ICTs is increasing, at the same time income level of citizens is also rising. The private sector led growth ensures high growth of the economy.

In such a situation, the operators of cyber café expect that the demand for cyber café will grow. The cyber café business is easy to conduct, just with a simple trade license.

4.4.4 Enabling Environment

2 – 3 Paragraphs:

What is your overall assessment of the ENVIRONMENT ecosystem in this type of venue (local economy, national economy, legal and regulatory framework, political will & public support, regional and international context)?

The penetration of ICTs is increasing, at the same time income level of citizens is increasing. The private sector has been playing an important role in economic growth in Bangladesh. At the same time literacy rate and education level are increasing. In such a situation, the operators of cyber café expect that the demand for cyber café will grow. The cyber café business is easy to conduct, just with a simple trade license.

4.4.4.1 Local & National Economy

Describe the local & national economic environment and how it affects public access to information & communication in this type of venue (refer to & complement economic summary in country assessment, section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

The urban population is growing at a steady pace in the country, indicating that the demand for services of the cyber cafés will grow despite the rise of private access to Internet. The national income is also growing. At the same time income of the middle class is also increasing. Thus, the low income group would have better purchasing power, which will further enhance market for cyber cafes in district towns. The massive use of cyber café during the publication of results of public examinations indicates that if appropriate services are there and people know about them, the business volume of the cyber café may increase further.

4.4.4.2 Legal & Regulatory Framework

Describe the legal and regulatory framework and how it affects public access to information & communication in this type of venue (refer to & complement economic summary in country assessment, section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

Generally, the cyber cafes start business after obtaining ordinary trade license. However, the regulator wants to regulate the cyber cafes. There is no regulation for cyber cafes from the BTRC. As they are currently busy with broader issues, any initiative for licensing regime is not at the horizon yet. It is expected that the reduction of bandwidth rate to USD 400 for 1 Mbps duplex connectivity would improve profitability of the cafes, and the perception about cost of cyber café use would change.

4.4.4.3 Political Will & Public Support

What is the level of political will and public support for this type of venue? (refer to & complement section 3.5 Economic, Policy & Regulatory Environment, calling out what is specific to this venue)

(i) If appropriate, indicate any specifics that apply to Digital ICT services alone.

The launching of VoIP in August, 2008 is expected to be a boon for the cyber cafes, now they will be able offer to users cheaper calling facilities to the relatives living aboard. It s to be mentioned that the government launched a massive drive against illegal VoIP and started providing license for the International Gateway and Exchanges. This action caused reduction in income for cyber cafes. Now, the cyber cafes will be able to tap this opportunity. Since 1996, the business remained illegal, until 2007. The active role of BTRC is appreciated by the stakeholders.

The quick win e-government projects identified by the government, if implemented, would add more business to the cyber cafes. More relevant services will be added. The systematic effort of this government shows that identification of priority and forging implementation can make a real difference.

4.4.4.4 Organization and Networking

Describe if the facilities in this type of venue organized in any network, association or other collective body? (ie, national public library system, telecentre franchise or network, etc)?

Cyber Café Owners Association of Bangladesh (CCOAB) is the Trade Association of Cyber Café business at national level in Bangladesh, which was established in 2003. CCOAB safeguards rights and interests of the members of the association and for the development of ICT in Bangladesh using the combined strengths of the members. It is recognized by and registered with the Department of Trade Organizations of Ministry of Commerce. CCOAB is working for exposition of new generation cyber applications products, solutions and services for experience the virtual world of computing and internet. CCOAB prompts ethical and positive business practices and its members are operating under the business Code of CCOAB.

4.4.4.5 Partnerships

Describe notable public-private partnerships in support of this type of venue.

If appropriate, indicate any specifics that apply to Digital ICT services alone.

Cyber Café Owners Association of Bangladesh (CCOAB) cooperates the Government bodies and advises concerned department(s) in formulating necessary rules and regulations for smooth operation of the cyber café business as well as to increase ICT awareness of the community people. The BTN, the network of telecenters in Bangladesh is planning to contact the CCOAB for win-win collaboration.

4.4.4.6 Other Environment Factors

Other factors in the environment that affect access and use of information in this kind of venue, not covered above?

There is an apprehension among the cyber café owners that the development of low cost mobile phone set with Internet browsing capacity would probably take away a portion of their clients, who come to cyber café only for checking emails. In general, technological development is a threat

to any static business concept.

4.4.1 For Publicly Funded Venues only: Revenue Streams

This section is meant specifically for publicly-funded venues (public libraries, national connectivity programs, etc).

4.4.1.1 Budget

What is the total budget for this public access venue system (applies especially for libraries, answer for other venues if applicable and if available)?

Total Budget for Fiscal Year fiscal year

Local currency name amount (local currency)

Approx. equivalent in USD based on exchange rate of on date .

4.4.1.2 Relative size of budget

How large (or small) is this budget in relation to other funding streams? (this is a way to show, in financial terms, how much the government cares about information and public access as compared to a variety of other issues in the country).

Relative Size of Budget for same year	Total budget (local currency)	Comments
Total national budget		
Education		
Other (name)		
Public Libraries		

Other Comments:

4.4.1.3 Sources of funding

What are the sources of funding for this public access venue system?

Sources of funding:	Approximate % of total budget	Comments
Government sources:		
International donors:		
National donors:		

User fees / services:
Other (name)
Other (name)
Other (name)

Other Comments:

4.4.1.4 Paths and Flows of resources

How do resources get allocated and disbursed to the actual venues? For the principal funders, and especially for the public sources, what is the flow of funds? How are the funds raised (what tax stream), what path do the tax streams flow before they get to the specific venues? Who makes decisions about this funding?

4.4.1.5 Fees and Cost Recovery

Describe if there are user fees or any other type of cost recovery. How does it affect service delivery and usage?

4.4.1.6 Cost Categories

What are the main cost categories in the operation of this kind of venue? (% of total annual budget)
If appropriate, indicate any specifics that apply to Digital ICT services alone.

Cost Categories for Operation:	Approximate % of total budget	Comments
Staff (salaries, benefits)		
Building Infrastructure		
Utilities		
Staff Training		
Computers / Technology		
other (name)		

other (name)	
Total	100%

Other Comments:

4.4.1.7 Recent changes and future trends

Describe any recent changes and anticipated future trends in the funding and revenue streams for this type of venue in the country. Have funding levels risen or decreased dramatically over the past few years? What is the outlook for the foreseeable future?

4.4.2 Case Example for Venue # 4: Cyber Cafe

Provide a short descriptions and commentary for each type of venue, offering a realistic sense of what the venue looks and feels like in its day to day operation, the kind of people who visit, and the kind of services they receive. Also, the case example indicates what makes the case unique or what features are commonly shared with other venues. A photo and short quotes will make it even more real.

Cyber Generation

The young men and women sit inside a brightly-lit cafe, their eyes glued to the computer screens. The level of concentration suggests as if they are far from the city's hustle and bustle outside their small cafe, where internet has mixed with coffee and snacks. They seem to care little about their surroundings because of the 15-inch monitors bring the whole world in front of them. This is common in the cafes that have sprung up in the capital city and elsewhere in the country. Cyber cafe is the latest craze for the young generation in Bangladesh. Although the country lags behind in terms of this branch of technology the number of cyber café is growing. With growing interest in using e-mail, internet, web browsing and chatting, the country's young generation is gradually becoming a 'cyber generation' despite all difficulties common in a third world country like Bangladesh.

Among the cyber cafe users, a significant proportion is female who feel free to go out in search of knowledge, friends or jobs. Many of the cyber cafés are run by women who account for a large number of cyber visitors. "It's a nice way of relaxing and seeking knowledge at the same time" said Farzana Shammi who has just graduated from Dhaka University. However, Shammi spends most of her time in cyber café for chatting, sending and receiving mails and sending greetings messages to friends and relations. She has hardly interest in browsing websites. Although there is a vast scope of gathering information from the internet, it is, in Bangladesh, mainly used for sending e-mails or chatting. Even most students do not browse educational websites.

Rehnuma Koli, 23, a student of Physics Department at Dhaka University, also does the same thing. "I use the internet mainly for sending messages. This is much cheaper than postal mail, phone or fax." There are some exceptions. Mong Sing Thowai, 20, who

studies in Bangladesh Agricultural University, said "I use the cyber cafes to browse the sites of different foreign universities and educational sites for information."

The cyber café culture is hardly ten years old in Bangladesh. In 1998, a fast food shop cum-ice-cream parlour at Banani for the first time introduced on-payment internet service for their customers. Later, the business spread fast in Gulshan-Banani, Dhanmondi and different posh areas of the capital city. Now we can find cyber cafés at every 'para' and 'mahalla' of the city. The cyber café culture started in the western world and then quickly transferred to other parts of the world, including the Asian countries. The young of the world took no time to fall in love with cyber cafes. In other countries, the cyber cafés offer tea, coffee and light food along with the internet. But such services are mostly unavailable in most of the cyber cafés in Bangladesh, says Reza Muktadir, another Dhaka University student, a frequent cyber cafe visitor. He said mainly young people and students, both male and female, are the users of the cyber cafes. But the fever is spreading to other age group people too.

Fahmidul Haq is a lecturer of journalism in Dhaka University. He says he is a regular user of cyber café, where he spends time in browsing and collecting latest articles on various issues, including communication and journalism. As per capita usage of computer and internet is still low in Bangladesh, cyber café is the only means of entering the World Wide Web for those who do not have their own computers or internet service.

Cyber café is also getting popular among job seekers. Rakib Ahmed, 28, has recently completed his study. He searches websites of different companies and submit bio-data for jobs. The business of cyber café has already spread to other big cities of the country, including Chittagong, Khulna, Rajshahi, Sylhet and Comilla. As internet service is being extended to small district towns in phases, the culture of cyber café is also spreading.

"Blue Planet" cyber café was opened in 1998 in Dhanmondi. "From the very beginning we have found huge interest among the young women. Now about 40 percent of our customers are women," says Mizanur Rahman, director of Blue Planet. There were not more than a dozen cyber cafes in the capital city until 2000. That number has now crossed one hundred. Cyber café is popular in the areas close to the Dhaka University, the business hub of Motijheel and residential areas like Dhanmondi, Mirpur and Mohammadpur. Mizanur Rahman further says that, on average, of 50 people visit his cafe each day. His cyber cafe has 10 computer terminals.

However, not all can afford the cost. As a result, the rich and upper middle class people remain the major customers. This is still hot for the lower middle class. The cost averages Tk 40 an hour. "This is too much for students," says Towhid Khan, 23, a BSc student of Comilla Lalmai Degree College. "It should not be more than Tk 10 per hour," he suggests. Towhid says there are only two cyber cafes in Comilla town but the speed is not satisfactory. "We cannot find all necessary sites in these browsing centres."

The owners of cyber cafes have different opinions about the cost. "If the Internet Service

Providers (ISP) reduces the rate, we'll be able to give the service at a lower rate," says Shamim Saiduzzaman, owner of 'Power System' at Dhanmondi. In fact, everything depends on the government policy and the rules of T&T Board, he says. The cyber café owners have to face many problems, including the speed of transferring data. The existing telecommunications infrastructure of the country does not provide necessary speed that reduces cost and time. Manager of '@IT' Maruf Ibne Mahbub says "We are moving ahead despite a lot of problems. We cannot satisfy our clients with the current speed due to lack of optical fiber." Cyber café is bringing a remarkable change in the lifestyle of the young generation. Alongside the positive impacts, there are some dark sides of using internet, particularly in cyber cafes. "Children are being exposed to pornography in internet," says a businessman, father of two young boys. Speaking on condition of anonymity, the owner of a cyber café says many of his customers, mainly young boys, are interested in just sex sites. "It's been a major attraction for them as it is very easy to find out a porno site in the Internet." He says many of these boys have computers and internet connections at their home, but they prefer cyber café for seeing internet pornography. However, some guardians think that the owners of cyber cafes can restrict browsing of pornographic sites using some software. Some of them say there is nothing to be worried as such bad habits will go away soon. Women sometimes face embarrassment when others open pornographic sites before them at the browsing shops. "So privacy must be ensured in cyber café," says Tabassum Rahman, 22, a student of North South University. - NewsNetwork

Fatima R (2008). The Cyber Generation. The Financial Express, date: Dhaka, Saturday February 16, 2008. (http://www.thefinancialexpress-bd.com/search_index.php?page=detail_news&news_id=25538)

5 SUCCESS FACTORS & STRATEGIC RECOMMENDATIONS

5.1 Summary of Lessons in country

5.1.1 Information Needs

What are the most critical information needs by underserved communities that are currently not being adequately met by public access to information & communication venues?

The most critical lesson as regards information needs is that people do not get adequate information regarding job and non-farm income opportunities in non-urban areas. It is revealed that directory information (e.g. where to go) is also inadequate. In underserved areas, only information can not solve many problems. People need quality services. People also want to know what government offers for various disadvantaged groups. This information may help them to claim those benefits. People's expectation is that the venues would help farmers with information of marketprice of their produce. In the context of Bangladesh, having 40% poor population, people want to see some direct linkage between investment in public access venues and change in their lives.

5.1.2 Where people go

Where do people go for public access to information & communication in the country, especially underserved communities?

Three important lessons have been learned during the research on information needs. One, people have a number of sources of information within their community and they largely rely on these sources. It means that they seldom go outside the community for searching correct information. Second, people know the information they get from the sources within the community are not always reliable, but they are reluctant to search for alternative. Three, public access venues could breakthrough in some cases, in general more time is needed for changing the behavioral pattern in terms of accessing information from new sources. It was also revealed that traditional knowledge and indigenous knowledge are under threat at the aggression of multinational corporations, particularly companies dealing with pesticides, seed and new technologies.

The destination of people for searching information changes if problem of livelihood changes. However, the prime source of information for all sorts of problems remain relatives and neighbors.

The herding behavior is very clear in non-urban areas in terms of spread of knowledge in agriculture. In every village there is at least one early adapter of new technology. Once he or she shows a success, then everybody quickly replicate that technology. If he or she makes the right choice, then it is good, if not, whole community then suffers. Following a number of such cases, people are apprehensive in terms of adopting new technologies. In case of agriculture, other than relatives and neighbors, farmers and other stakeholders related to agriculture

seek information from shop owners, experienced farmers, block supervisors, agricultural extension offices, and NGO workers, but less frequently. In dealing with health problem and diseases, indigenous doctor, local doctor and clinic, health officer, health worker, local hospital, doctor and clinic in nearby towns had been the major sources of information. Radio programs, relatives, neighbors, TV programs, NGO workers are also found to provide valuable information in regard to health. Local teachers, relatives, neighbors appeared to be the major sources of education related information. Village doctors are presumed to be an independent source of information. People go to village court or influential people for problem related to any dispute, which has legal implications. Other sought after sources are local government offices, NGO representatives and money lenders and MFIs. People go there not always with trust , but due to lack of alternatives.

The study shows that public libraries and community libraries have traditional users. Addition of ICT facilities probably increase the number of traditional users, but failed to add new users except journalists and unemployed youth. The public access venues largely fail to attract children, except community libraries and non-urban telecenters. Thus, children in underserved community largely remain out of the benefit of the modern technology based information access facilities. Commercially operated telecenters are less focused on information services and rely on users capacity to search information. On the other hand, non- commercial telecenters focus mainly on information services and provide assistance to people to find required information. The diversity of users is more in cyber café and telecenters, particularly in information focused telecenters.

It was also revealed that users in cyber café and libraries are little aware of availability of content in local language. It is also learned that involvement of female staff improves women's access to public access venues.

In summary, public access venues are still to become first point of reference point for community people. Considering the annual number of visitors, it is obvious that majority of the community people still don't rely or do not know about the services of the public access venues. Lack of education is also a factor behind limited access to available venues. It should also be considered that compared to public libraries and community libraries the cyber cafes and telecenters are new phenomenon, but in terms of social appropriation these venues have some success stories. . Public knowledge and perception regarding these venues are incomplete. The growth of public access venues is expected to change scenario in near future.

5.1.3 Access, Capacity & Environment affect Public Access

How do access, capacity and environment affect public access to information & communication venues in the country? (Refer to details under access, capacity & environment in research design document).

Rapid growth in number of public access venues across the country creates opportunity for the underserved communities to access information for improving livelihood. However, the dominance of private sector and insignificant participation of the government in creation of such venues poses a major challenge, because such dominance of the private sector will prohibit access of most needed group in the society- the poor people.

Education remains the most significant barrier to accessing knowledge offered through whatever channels and forms. However, innovations like infomediary is in place to overcome such barrier until education level becomes high.

While private sector is playing a major role in providing public access to information, the regulatory and policy regime plays an important role in creating enabling environment. A number of initiatives have been taken by the government, which are going to expand high quality Internet connectivity for population living both in rural and urban areas. The 3G licensing and Wi-max licensing and investment is going to create such environment. Until that EDGE, GPRS and CDMA is meeting the demand for connectivity across the country.

The VoIP has been legalized in August, 2008, this will benefit the consumers with the opportunity to make cheaper calls with country and abroad. The operationalization of the ICT Act, 2006 is going to create an environment for full-blown e-business. The government is coming to invest in creation of public access information venues with 39 “quick win” projects, this will ensure creating information and knowledge system for the citizens and disadvantaged people are expected to be included in such a system.

5.1.4 Role of ICT

What is the role of ICT in public access to information & communication? What untapped opportunities exist?

Although, Bangladesh achieved significant progress in terms of poverty reduction, more than one-third population is still living below the poverty line (40% in 2005). Still 70% of population can not afford access to computer at home. Thus, importance of public access venues with ICTs is very high. The mobile phone penetration is already high and continues to grow further. The mobile phone improved both access to information and communication by the people tremendously. The mobile phone operators are now switching to the “value added” market, which means more information products are coming for the benefit of the citizens. For the case of Bangladesh, public access to information and communication will remain important for another 20-30 years for two reasons: poverty and “other reasons”. The “other reasons” require further investigation, because low income is not only reasons of public access. If that was the only reason, rich countries would not have enough clients for public access venues.

As was mentioned in the main text, the private sector, NGOs, and local communities have been the sole investor in public access venues. The government was almost missing, except in case of public libraries. The engagement of the government will dramatically expand the access of citizens to public access venues and resolve in many cases the problem of equitable access. Things are moving in the right direction, as the government has taken a number of initiatives, which are expected to produce fruit in the end of this year.

Due to lack of high speed connectivity, telemedicine, e-learning and e-education was underperforming. The licensing of Wi-max and 3G will remove the technological barrier. Again, this is expected to happen by the end of this year. The price of broadband Internet connectivity was reduced three times in 2008 and in July stood at approximately USD 400 for

1 mbps duplex dedicated connectivity. Such reduction would promote business in ITES and public access venues would be able to earn more money for ensuring financial sustainability.

5.2 Success Factors & Recommendations

5.2.1 Where to Invest Resources

How could additional resources (money, people, time, knowledge) be best used to strengthen public access to information & communication venues and practices in the country? (ie, solutions that would make it more accessible, affordable, appropriate?)

In the context of Bangladesh, there is a dire need to expand the network of ICT-based public access venues of different kinds. The most cost effective routes for such expansion is to utilize existing venues. An exercise of identification of potential venues shows that there are more than 60,000 potential venues, with various degree of readiness in terms of turning them into public access information venues with ICTs. The most ready venues are local government institutions' buildings. Out of 4800 local government institutions, already 1000 institutions have at least one computer. These one thousand venues may be converted into public access venues with addition of Internet connection and existing livelihood content and training of a personnel. The local government institutions have their own budget, which will grow further to more than USD 16000 by 2011 under a project titled "Local Government Support Project". The resource required for converting them into public access venues is a tiny fraction of the available resource. Fortunately, the local government ministry has taken a pilot project to start with 30 locations, to establish public access venues with at least four computers and other facilities from October 2008. The plan to convert 1000 locations is also underway. The resources for establishment of public access venues may be mobilized from multi-lateral, bi-lateral and other international donors.

The next most easily convertible venues are post-offices, which have a network of more than 8000 establishments across the country, including most remote areas of the country. A public - private partnership would give a second life to these ailing institutions. These venues have already reputation of public venues and staff of the venues know every household in the community. The existing services and the new services will have very good chance of quick financial viability.

The third important potential venues are network of educational institutions, both secondary and higher secondary. There are more than 25,000 educational institutions in the country. The establishment of public access venues in these institutions would serve two purposes simultaneously. One, the ICT-skill development of the students, improvement of delivery in core education in the subjects like Mathematics, English and Science; second, maximizing the utilization of the venues as public venues after school hours. The ICT education would reduce dependence on assisted use of the ICTs in public access venues and increase turn over in the venues as well.

The fourth important group is libraries, funded by both the government and private sector (individual, for-profit and not-for-profit). The libraries are the knowledge institutions, the

most ancient public access information venues. In terms of trust, these are the most trustworthy institutions till date. The study shows that there are more than 1119 public libraries across the country, however, only 10.13% have ICT facilities. These facilities are provided by local, national and International donors. There is a scope to tap more resources for making it ICT-enabled.

The NGO network in Bangladesh is very strong, and they offer education, health, legal aid, agriculture extension, sanitation, micro-credit and small credit and other important services across the country. The country experiments show that if a public access venue (telecenter type) is hosted by a local NGO, chances of success and sustainability is much higher at the nascent stage, because change in the access to information behavior is slow. The NGOs have experience in running venture and financial management capacity and also access to the community.

A number of innovative programs are in operation, which offers information and knowledge service in the country. For example, library on the wheel. This is a very popular program; however, access to Internet to the mobile libraries would have great value. The public access venue on the boat is expanding, following the innovative idea of Shidhulai.

Along with the expansion of network of public access venues it is crucial to focus on creation of local content (both locally relevant and locally generated) and on-line services for the citizens. There is severe dearth of educational content, both for formal and informal education. Although there is a number of good initiatives, but still this is not adequate considering the total demand.

The next important area of investment is expansion of Internet connectivity at an affordable price, which is capable to handle rich content. Such a network would be helpful in e-health and e-education. The private sector is ready to invest once the license is given. However, there is a role of the BTRC to make the connectivity affordable. For having really a thriving public access to information and knowledge system, the heart of the public access venues- an army of capable human beings- should be taken care of. The past trends show that the initiators are eager to invest in hardware, even donors are also more interested in hardware, but good initiatives fail just due to lack of attention to investment in human capacity building.

5.2.2 Key Success Factors

What are the key success factors for public access to information & communication to meet information needs of the population, especially underserved communities, and especially through digital ICT?

Community-driven initiatives show better results: Excessive bindings from the side of investors create an environment, where local community and initiators do not feel owner of the initiative. The public libraries and community libraries rarely die as the community feels the need to keep it up and going. Due to lack of new ideas, they may not function up to its full potential, but if ideas are shared and some technical support is given (sometimes they are ready to pay for the services), the venues get a second life. Jessore Institute is such an example in case of public library. The research finds that community libraries are really community oriented and effective for the community people both for enhancing educational

opportunities, life skill and access to information. The experience shows, cost sharing works better than giving full cost and idea from the top.

Locally Relevant Content and Services: Public access venues, particularly telecenters are attracting users, as they could identify appropriate content and services, which are in demand among the citizens above 14 years of old. However, they could attract little number of users from the age group of 14 years and below. Restrictions in playing games and cost of use probably played a role in inhibiting this particular group in non-urban areas. The development of customized local language content in various forms and services using various channels probably one of the reasons that content could become useful to underserved groups, particularly farmers and house wives in non-urban areas. Visualization and voice enabled text would give better result. The research shows, where Infomediary is of good quality, the benefit to the community is higher.

Infomediary: Either we have to make whole population literate over-night or we have to develop some mechanisms to make disadvantaged people immediately access benefit of ICTs. The research shows that one of such mechanisms is Infomediary deployed in non-urban telecenters. Infomediary is a human interface between digital content and illiterate or print-disabled people. The research shows, where there is an infomediary the user profiles are broader including illiterate people. Furthermore, the performance of infomediary influence the performance of a telecenter, where such infomediary was found.

Availability of Internet: The comparison between public access venues shows that the performance of the venues with Internet connection is way better than the venues without Internet connection.

Electricity: One of the major reasons behind the relatively lower performance in terms of visitors in all three types of venues except the cyber café is availability of uninterrupted power supply. The electricity situation in urban areas is relatively better than in non-urban areas. Thus, effective number of hours for public access venues in urban areas is high compared to non-urban areas. The success of the public access venues is largely dependent on this single factor.

Motivation within the government: The Bangladesh case shows that the private sector (both for-profit and not-for-profit sector) is motivated and works towards creating public access to ICTs and information and knowledge. However, despite tremendous scope, the government was not motivated enough to contribute in this process. The involvement of the government with appropriate design and investment would ensure success of Bangladesh in building a knowledge society, which would be inclusive. Without the government involvement both with investment and appropriate policy, the information and knowledge system will not be pro-poor.

Role of a Champion: It is found that in expansion of the network of public access venues of different kinds, in content development initiatives and in policy making, there is always a champion behind. Probably, this is the most important success factor.

5.2.3 Role of ICT

How can public access to information & communication venues in the country be strengthened to offer more meaningful and equitable access to information, especially using digital ICT?

Most of the key success factors identified above are related to ICTs. Nevertheless, one important role can be added here in addition to factors mentioned above. It is about power of networking, particularly virtual networking among the practitioners of the public access venues.

The poorer is the community, the greater is the role of ICTs and public access venues. This may sound odd, however, this is reality on the ground in terms of accessing information and knowledge. Only ICT can make it possible that one single piece of content is available in all venues simultaneously, saving the cost of printing of books and cost of reprinting with updates. The knowledge transfer is much better through animation and combination of voice, picture and text, which is not possible in any other form other than ICT. Such combination is more effective for illiterate people. Finally, affordability is the key reason for a society like Bangladesh, why there is no alternative to public access venues with ICTs. One should not forget here that along with the development of technology the nature, structure, form and concept of public access venues will evolve and, it would be important not to get into a box of thought or a particular design.

5.2.4 Top Ten Recommendations

What are the Top Ten recommendations for public access to information & communication venues in your country? Make sure you include policy recommendations as part of them.

1. Promote community driven initiatives in building a network of public access venues with diversity of models in terms of ownership, technology mix, service and activity-mix, mobility-mix and other critical variables. Combining resources from the community and from outside only sustain in the long run.
2. Promote investment by various players in content development, which is in local language, which is need-based, with priority for the neediest groups in the society. The content also should be developed in variety of forms (text, picture, animation and their innovative combination), and also content which is deliverable through multiple channels
3. Combine services and activities in all public access venues following the success of community libraries. The introduction of activities which involves various community groups makes a venue people oriented and trust-worthy to the whole community
4. Introduce infomediary to make a public access venue inclusive and equitable. This is important in the context of Bangladesh. Only quality infomediary makes a real difference in terms of effectiveness of a public access venue. Infomediary should teach the user about the vast scope of use of the Internet for the personal and common benefit of the users.

5. Make Internet connectivity in all types of public access venue free. Universal Service Funds, or free connection voucher issued from the BTRC may be introduced. The venue with Internet is a better option for the community in terms of getting access to Odyssey of knowledge available on the Internet. Furthermore, communication gets a different height with Internet.
6. Invest in low power consuming device with higher battery life. This is the most effective solution for the non-urban areas of a country like Bangladesh, where grid line power situation is in dismal situation and there is no hope that would improve in next ten years.
7. Take a comprehensive plan for creating public access venues with a bunch of e-government services. The government policy intervention to make the public access venue information focused and equity focused is essential.
8. Strengthen the support system (technical, know-how and operational) for the public access venues and build a network of all public access venues for multiplication of good values and avoiding same mistakes.
9. Mobilize resources from International bi-lateral, multi-lateral, corporate donor agencies for building and sustaining such a system by showcasing real success stories and highlighting win-win-win potential for all parties. The resources do not mean only financial resources, it must be also intellectual resources. Sharing of experiences and learning would be very important for Bangladesh as she has many things to show and share and also learn from other good stories
10. Create an international benchmark for public access venues for channeling global resources. This can be done efficiently with the knowledge generated through this research.

6 APPENDICES

Please attach on the next pages any other relevant information, resources or materials that can help understand public access information venues in the country.

6.1 List of Countries included in Research

Algeria
Argentina
Bangladesh
Brazil
Colombia
Costa Rica
Dominican Republic
Ecuador
Egypt
Georgia
Honduras
Indonesia
Kazakhstan
Kyrgyzstan
Moldova
Mongolia
Namibia
Nepal
Peru
Philippines
South Africa
Sri Lanka
Turkey
Uganda

6.2 Overview of Research Design

The Center for Information & Society (CIS), in partnership with the Information School of the University of Washington, has as part of its core mission the investigation of how inequities in our global society can be reduced through improved access to information and communication technologies (ICT). As part of its research activities, CIS has brought together interdisciplinary teams of researchers to examine the needs, readiness and success factors for public access to information & communication venues through digital ICTs in 24 countries around the world.

Project Goal:

- Understand information needs, and opportunities to strengthen institutions that offer public access to information & communication, especially to underserved communities, and especially through the use of digital ICT: What are the needs, barriers, opportunities & success factors for public access to information and communication to help human development in countries around the world? For the purpose of this study, research is primarily focused on Libraries and Other institutional venues for which access to information has a significant role. This research includes understanding venues where digital ICT is currently offered, *and* also where ICT is not currently offered but there is potential and strong institutional support to include ICT (for example, some public libraries where digital ICT services are currently not offered, but there would be strong interest in offering them).

Libraries include public libraries and other types of libraries that are open to the public. **Other venues** include national initiatives that offer public access to information, either with ICTs (telecentres, cybercafés and the like) or without ICTs (post offices, community centers and similar) and are of significant importance in local contexts.

Project Purpose:

- Inform policy & funding decisions: Inform funders and government decision makers about future program direction and funding allocations
- Contribute to public knowledge: Disseminate results of in-depth country and comparative analyses, including research design & analytical models

To inform project design, CIS adapted the Real Access framework (Bridges.org), analyzing public access to information & communication through a total of 14 research categories grouped under the dimensions of **Access, Capacity & Relevance** and **Enabling Environments**. Adaptation was done in consultation with research partners around the world for the purposes of this study.

The implementation of this project is organized as a two-phase process:

Phase 1: Nov 07 – Feb 15, 2008

During Phase 1, a **Draft Country Report** will be prepared by local research teams in each country. The Draft Country Report includes a Country Profile, a Country Assessment and an early draft of Lessons & Recommendations.

The *Country Profile* is a collection of 50 general descriptive data points drawn from readily accessible sources; CIS pre-populates the reports for each country, and offers them for validation and comments by local teams. Country Profiles provide primarily statistical data that is intended to offer a quick snapshot of each country, including geography, political environment, demographics, economy, education and ICT infrastructure.

Using a common approach to define research processes, local teams will conduct initial fieldwork to inform a *Country Assessment*. The Country Assessment includes both a scan of information needs, especially for underserved communities; and an assessment of public access to information &

communication venues (with or without digital ICT services) and their environment, resulting in a better understanding of gaps, opportunities, and readiness of public access to information initiatives in each country.

During Phase 1, each country team will also complete an early draft of *Success Factors and Recommendations* focused on strengthening public access to information in the country, and identify potential themes and issues for further study in Phase 2.

Phase 1b: Feb 15-Mar 15, 2008

During this period, CIS will conduct a preliminary comparative analysis based on the Draft Country Reports from all participating countries, and suggest feedback and guidance for Phase 2 of the study. The comparative analysis will look for salient trends, emergent themes, patterns, and threads across regions. During this period, next steps will be determined for in-depth country research for Phase 2.

Phase 2: March 2008 – August 15, 2008

Phase 2 will involve a deeper assessment of public access to information and ICTs across all 24 countries. In particular, CIS is interested in deeper probing of the emerging themes and scenarios identified in Phase 1. A **Final Country Report** will include high level analysis, success factors and recommendations to strengthen public access to information and ICTs in each country. Final comparative analysis across countries, with analytical models and scenarios, will be completed by CIS after receiving the Final Country Reports.

Findings will be disseminated publically through reports, academic publications, conferences and consortiums. Each country team is expected to produce at least one publishable paper on their research and findings, plus additional papers emerging out of the comparative analysis and global findings. Publications will be part of the public domain, with the CIS web site, partners' sites, and other publication channels to be identified.

6.3 Annotated Country Profile (form 2)

Attach here an updated copy of the annotated Country Profile (Form 2).

6.4 Other Appendices

Attach other appendices here, as needed.

Appendix 1. Distribution of Libraries in Bangladesh

		Government	Non-government	Private	Foreign Missions	Total
Public Library	Public Library (including national)	604	500		15	1119
	Community Library	0	2100	130		2230
Sub-total		604	2600	130	15	3349
Academic Library	School	450		15000		15450
	College	230		801		1031
	Technical and vocational	19		25		44
	University	44		51		95
Sub-total		743	0	15877	0	16620
Specialized Library		20	535	95		650
Total		1367	3135	16102	15	20619

Appendix 2. Top 50 Information Needs for Common Citizens and Businesses

Rank	Information Needs/ Services	Name of Organization	User group
1	Statistics on national income, labour force, house hold expenditure, industrial statistics, agricultural statistics, inflation rate, etc.	Ministry of Planning	C, B
2	Information on income, tax, corporate tax, TIN, BIN, revenue generation	Ministry of Finance	C, B
3	Information on role, services, budgetary allocation, financial statement of local government institutions	Ministry of Local Government and Rural Development	C
4	Information about how to file case, preserve evidence, seek assistance of lawyers	Ministry of Law and Parliamentary Affairs	C
5	Information on provisions of laws in case of labour rights violation	Ministry of Labour and Employment	C
6	Information on relief allocation and relief distribution	Ministry of Food and Disaster Management	C
7	Information about international market of products and services produced in Bangladesh	Ministry of Foreign Affairs, Bangladeshi Embassies in Foreign countries	B
8	Information on import tariff and procedure	Ministry of Commerce, Bangladesh Tariff Commission	B
9	Information on testing of soil quality and crop selection	Ministry of Agriculture	C
10	Information on selection of crop based on soil type, availability of soil testing facilities, advantage and necessity of soil testing, available alternatives [crop rotation], field preparation, fertilizer usage	Ministry of Agriculture	C
11	information on price of agricultural products: by product, by location, periodicity: daily, weekly monthly, seasonally, price comparison by location for each product (wholesale and retail),	Ministry of Agriculture	C

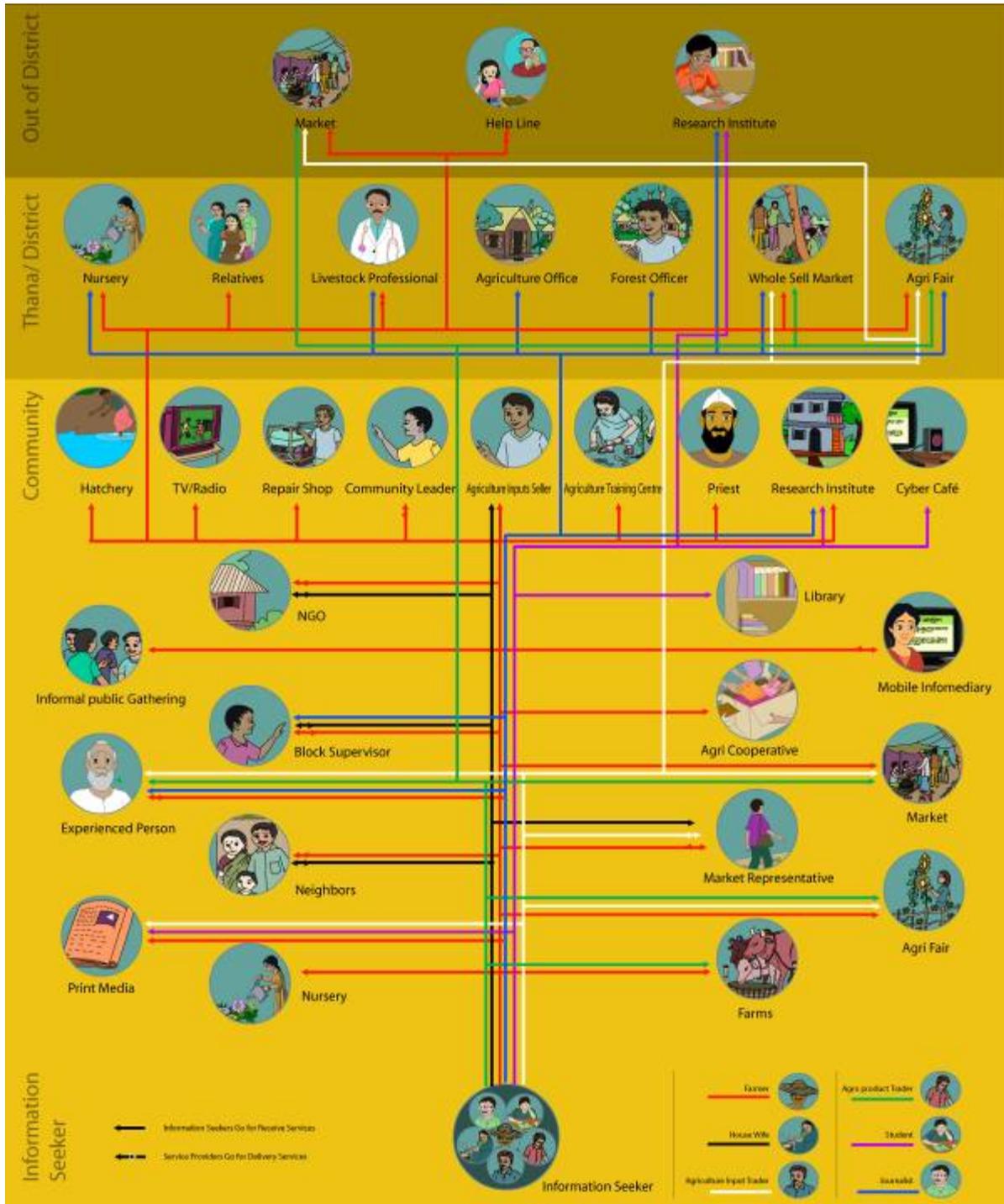
	distance of market, transportation cost, storage facilities		
12	Information on seed selection, on sources of quality seed, quality assurance, price, sustainability [dependence on seed], patent issues, Indigenous methods of seed production and preservation	Ministry of Agriculture	C
13	Information on supports for agriculture from government and other institutions [fertilizer, seed, fuel, cash]	Ministry of Agriculture	C
14	Real time information support to farmers in case emergency with production, processing and marketing	Ministry of Agriculture	C
15	Up-to-date macro-economic statistics, business statistics including statistics of export and import at the level of detailed HS codes, tariff information, information on preferential treatments offered by developed and developing countries, information about compliance procedure of major importing countries.	Ministry of Finance and Planning	C
16	Export statistics and information on export opportunities	Ministry of Commerce	C
17	Status of implementation of Annual development Plan	Ministry of Planning	C
18	Information on distribution and sales of essential commodities and their price	Ministry of Commerce	C
19	Advance information on government allocation of resources for the vulnerable people (VGD, VGF, Relief), eligibility criteria, publishing list of recipients	Ministry of Food and Disaster Management	C
20	Regular up-to-date information on foreign employment market and job opportunities	Ministry of Labor and Employment	C
21	Information on Weather and flood forecasting	Ministry of Defense	C
22	Early warning of flood for saving life, crop, livestock and household amenities	Ministry of Food and Disaster Management	C
23	Information about freedom fighters	Ministry of Liberation War Affairs	C

24	Information on livestock, poultry and fisheries: commercial farming information, disease control, feeding, price information, sources of poultry and fish fry, quality assurance, open water fish farming, fish marketing, virus control of shrimp, cultivation of fish in a paddy field	Ministry of Fisheries and Livestock	C
25	Information pest and diseases management: symptom identification, disease identification, Treatment, Choice of remedy [chemical or biological], quality of chemicals [pesticide /herbicide], chemical usage norms and procedures, health precaution	Ministry of Agriculture	C
26	Information on remedy of salinity: cropping in saline lands	Ministry of Agriculture	C
27	Information on production of horticultural products and marketing	Ministry of Agriculture	C
28	Information on livestock development, veterarinary training	Ministry of Livestock and Fisheries	C
29	Regulations to protect rights of poor farmers	Ministry of Law and Parliamentary Affairs	C
30	Building awareness among the labour force as regards minimum wage	Ministry of Labour and Employment	C
31	Information about procedure of getting public utility services	Ministry of Local Government and Rural Development, Ministry of Energy and Mineral Resources, Ministry of Post and Telecom	C
32	Information on filing case of labour rights violation	Ministry of Labour and Employment	C
33	Results of SSC, HSC Exams	Ministry of Education	C
34	Results of public exams	Ministry of Education	C
35	Information about exam dates for PSC job	Ministry of Education	C
36	Public service exam results	Ministry of Education	C
37	Information on disaster preparedness of	Ministry of Food and	C

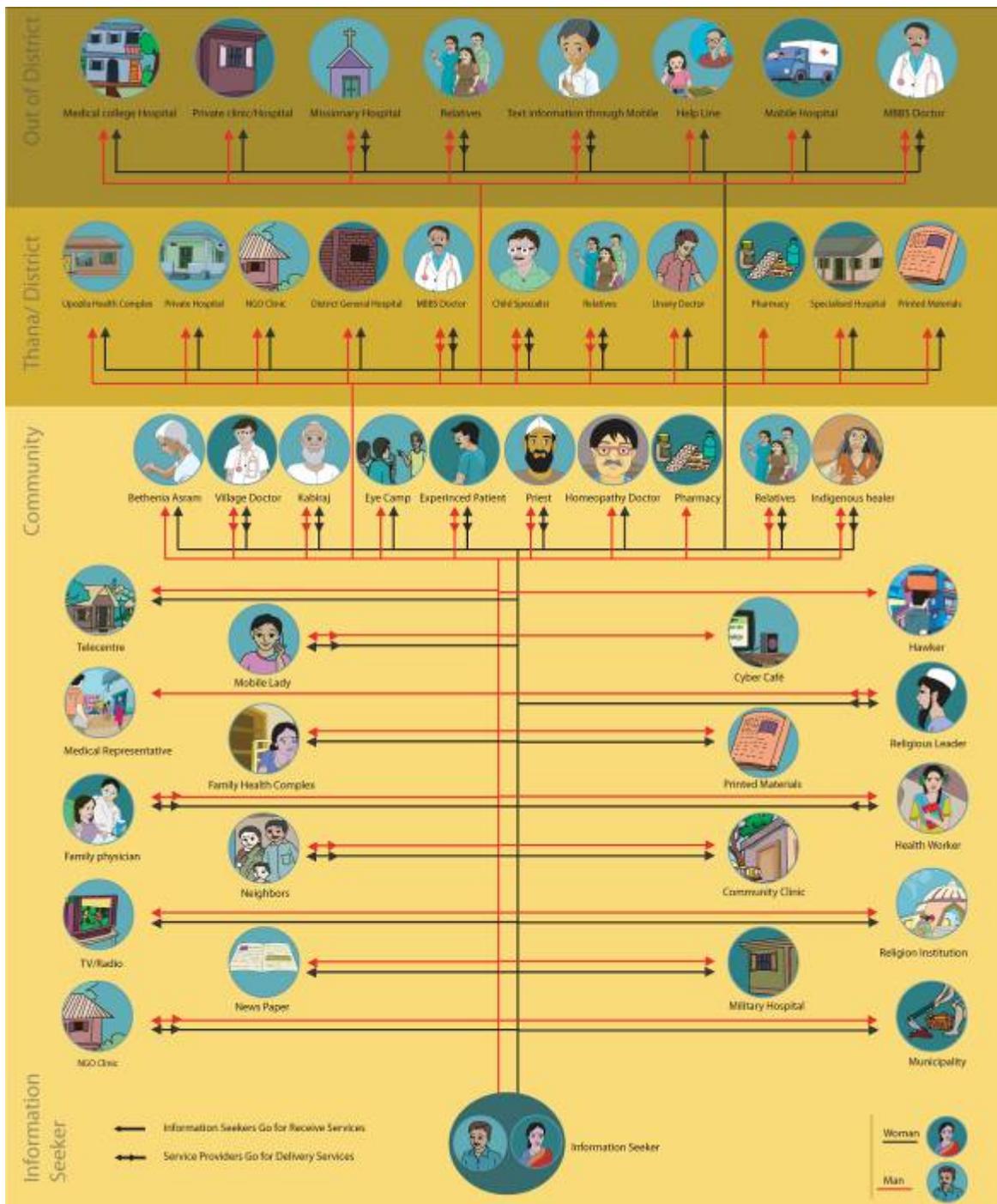
	citizens	Disaster Management	
38	Information about sanitation, sources of sanitary system, cost, availability of government and NGO support, alternative technology and cost	Ministry of Science and ICT, Ministry of Local Government and Rural Development	C
39	Information about commercial production of herbs and shrubs, processing and marketing of herbal medicine, licensing and patenting	Ministry of Agriculture	B
40	Information of corporate income tax and related issues	Ministry of Finance Large Tax Payers Unit	B
41	Information on customs, excise and VAT	Ministry of Finance, Customs, Excise and VAT	B
42	Information on capacity building of exporters and export fairs	Ministry of Commerce Export Promotion Bureau	B
43	Information on various modern agricultural production process, pest control, integrated farming etc.	Ministry of Agriculture	C
44	Information on new varieties of jute and their production process	Ministry of Agriculture	C
45	Research information on new varieties of seeds based on nuclear technology	Ministry of Agriculture	C
46	Information about benefits for freedom fighters and their families	Ministry of Liberation War Affairs	C
47	Information on electricity distribution and billing	Ministry of Energy and Mineral resources	C
48	Publicly accessible archive of laws and gazettes with recent amendments (bilingual)	Ministry of Law and Parliamentary Affairs	C
49	Counseling the rural victim of violence against women and providing necessary information of entrepreneurship	Ministry of Law and Parliamentary Affairs	C
50	Publication of results of public examination	Ministry of Education	C

Note: C – Individual Citizen, B- Business

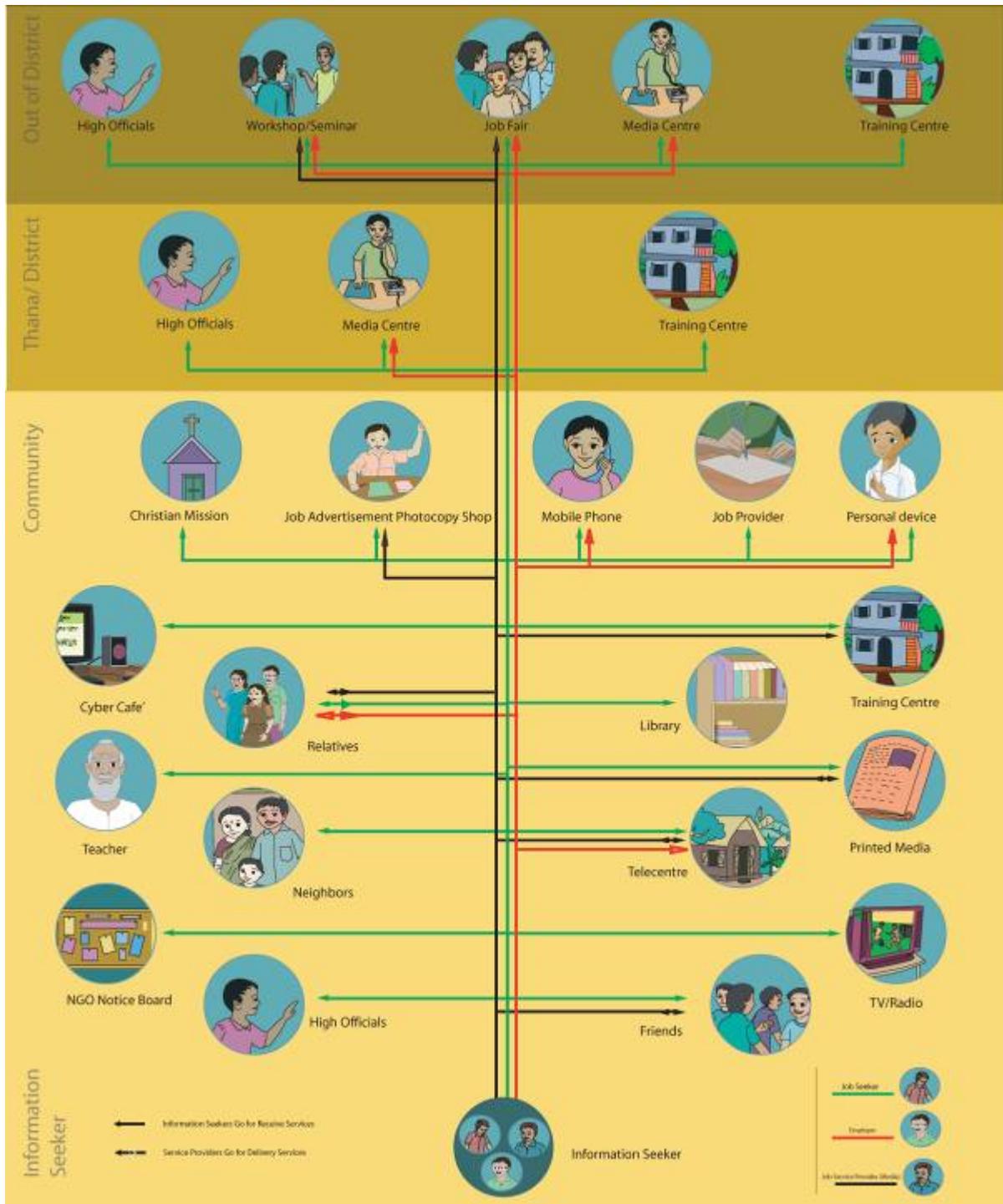
Appendix 3. Diagrams of Information Ecology Mapping
 Agriculture ecology mapping



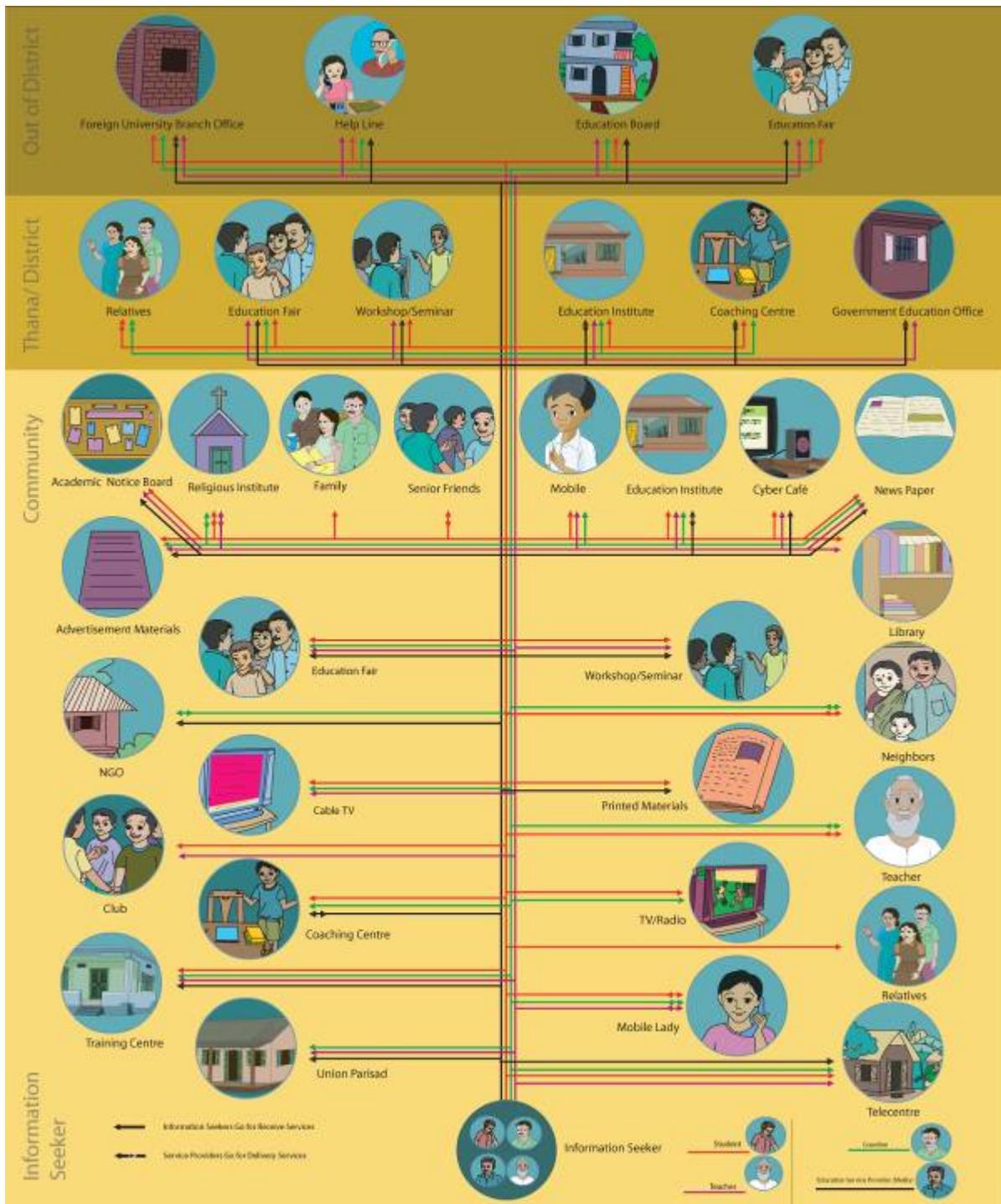
Health Information Ecology Mapping



Employment Information Ecology Mapping



Education Information Ecology Mapping



Source: D.Net, 2008

Appendix 4: List of references

Appendix 4: List of references

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