

**The Prospects and Challenges for Women Empowerment through
Open ICT4D in Pakistan**

1st draft

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Summary

The proliferation of Information and Communication Technologies (ICTs) such as telephones, radio, television, computer applications and the Internet has led to their increased use and importance. Open ICT- the broad access to ICT, is a very powerful tool for development and has assisted tremendously in achieving efficiency in key areas such as health, education, and economic empowerment of women.

In Pakistan, the communication sector has become one of the major sectors attracting foreign direct investment during the past five years. Despite the increased number of mobile phone and computer users, rural areas remain underserved. Furthermore, access and usage of ICTs demand affordability, accessibility, and literacy and these factors are usually gender insensitive, the very definition of gender digital divide. The 'digital divide' refers to the uneven distribution of benefits of ICTs and drastic differences in levels of ICT access between different population groups. This divide is especially pronounced for rural and marginalized women and girls.

However, on the other hand the potential of Open ICTs for women's empowerment has also been shown. Access to employment and income is one aspect thereof. The ICT applications have translated into improved access to financial information for female users. Besides employment creation and business promotion, ICTs have provided innovative ways for women and girls to obtain access to education and skills and to facilitate women and girls' access to health-related information and facilities. Distance learning, as another example, gives flexibility of access and study times. This may be of

special importance for females in rural areas or those facing social barriers that limit their access to schools. Health educators have used radio to communicate information related to women's sexual and reproductive health. Besides information tools like CD, databases and mobile ICT devices can enhance public health delivery.

The specific objectives of this paper are to identify gender-specific utilization of ICTs in Pakistan. The paper looks at the determinants of ICT openness with special reference to socio-cultural norms and the policy context. The paper aims to document the challenges faced while implementing gender focused initiatives. These challenges are associated with access and use of ICTs, which in turn determine the degree of openness and are considered in the present paper in relation to strong socio-cultural barriers to openness in Pakistan. The paper is based on some case studies regarding digital literacy, satellite phones for tele-health, e-commerce etc. and emphasizes major challenges faced by women where access and use of some specific ICTs is more open. Moreover, in order to reflect the impact of openness in terms of women's empowerment, some success stories are also documented by interviewing the key informants.

1.1. Empowering women through Open ICT4D

There is evidence that indicates the potential of ICTs for Development (ICT4D) of women especially where ICTs are open in terms of access and use. This is emphasized by different researchers (Gurumurthy, 2004; Hafkin and Taggart, 2001). Access to employment and income is one aspect thereof. Employment in ICT-related companies has often benefited women's employment, for example in India (Velan, 2006; Huyer and

Mitter, 2003). ICT applications have translated into improved access to financial information for female users, thereby supporting their economic empowerment. The ‘Village Phone’ programme initiated by the Grameen Bank in Bangladesh is a case in point (Chowdhury, 2002; Hafkin and Taggart, 2001). ICTs provide opportunities to bypass the traditional dependence of women producers on male-dominated market structures, including their reliance on “middle-men” for marketing. Mobile phones, for instance, can be used for gathering information about prices in order to avoid exploitation through middle-men and the internet has been applied as an alternative marketing tool (Gurumurthy, 2004). In the ‘Farmwise’ project in Malawi, improved access to information through using a database, an online input calculator and e-mail resulted in increased productivity of women maize farmers. The project leaders claim that, as a result of the database information project, productivity more than doubled (Nyirenda 2004, in Sciadas, 2005). A recent study of the Food and Agriculture Organisation of the United Nations (FAO) showed that women who are involved in meaningful ICT projects produce results for improved economic and social well-being in the community (Balakrishnan, 2002).

Apart from its role in employment creation and business promotion, ICTs have provided innovative ways for women and girls to obtain access to education and skills and facilitate women and girls’ access to health-related information and facilities. In India, a project in which ICT-assisted literacy classes were given, the majority of the students were women from socio-economically disadvantaged communities with no or very limited previous exposure to ICTs. The women were eager to learn to use computers

because they associated them with income-earning opportunities. They continued to use computers beyond the courses (Farrell, 2004, in Sciadas, 2005). In another challenging situation targeted in India, where low literacy rates, traditional gender roles, lack of marketable skills, and lower educational levels make it difficult for women to find employment, a software development firm set up a train-and-hire programme. In this programme, partnering non-governmental organisations offer free or low-cost six to eight month ICT training courses conducted in local languages to marginalized groups of women. Upon completion, successful women candidates are awarded full-time jobs at the firm (Datamation 2005, in Sciadas, 2005). Distance learning, as another example, allows for flexibility of access and study times (Gurumurthy, 2004). This may be of special importance for women and girls in rural areas or those facing social barriers that limit their access to schools (Chen, 2004). Health educators have used the radio to communicate information related to women's sexual and reproductive health. Besides,

In a cross-country study, Chen (2004) shows that improvements in ICT infrastructure can enhance gender equality in education and employment. The Expert Group Meeting convened by the United Nations Division for the Advancement of Women in November 2002 concluded that, when there is an enabling environment, ICT can provide diverse avenues for women's social, political and economic empowerment.

1.2. The Challenges of accessing and using ICTs

By now, it has become clear that many persistent gender specific structural inequalities constitute barriers to women's access, such as education, traditional cultural beliefs and practices, economic inequality etc. In fact, ICTs are designed and crafted within male-dominated environments and as a result, they do not necessarily correspond to the specific needs of women. ICTs are also regulated by decision-makers, the majority of which are men. This phenomenon, embracing the disparities in access and use of ICTs by women and men, has been named the "gender digital divide" (Huyer & Sikoska, 2003, p.2).

In developing countries, women tend to live in rural areas more than men, where infrastructure is less dependable, and travel to ICT centers is more difficult due to cost, time, and cultural reasons, so geographical locations constitute another important barrier. Moreover, due to engagement of women in domestic, productive and community management responsibilities, women tend to have a much longer workday than men. Another major reason is less access of women to financial resources to cover the cost of equipment and access. However lower levels of literacy and education, including training in languages that are predominantly used in ICT platforms and the Internet, is the predominant barrier (Huyer & Sikoska, 2003, p.15).

Gender biases in determining who receives technologies and/or education, credit and other resources for accessing them are augmented through a tendency of governments and development agencies to treat technologies as neutral, value free tools, without taking

social, environmental and economic effects into account. Also, women's technological skills are often overlooked (Stamp, 1989, in Huyer and Mitter, 2003).

1.3. Situation in Pakistan

Pakistan is a developing country and is facing many development challenges including low literacy rates, poverty, insufficient and substandard health care facilities, bad governance structures, insecure security and political situation etc. Moreover, gender-segregated data reveals dramatic gender disparities in access to basic services. Only 32% of females have access to formal education as compared to almost half of their male counterparts. No more than 6% of all girls complete 10 years of schooling. About twice as many boys complete their matriculation exams. Of particular concern is the situation in rural areas where the female literacy rate is only 26%, compared to a national average of 53% for females living in urban areas (Federal Bureau of Statistics, 2008). Women and girls are significantly more likely to face sickness and injury – up to 44% more likely than men and boys in rural Balochistan (Federal Bureau of Statistics, 2005). The maternal death rate is one the highest in the South Asia. The reported cases for maternal mortality rate are 280 per 100,000 live births, from 2003 to 2008 (UNICEF, 2010)

Most women usually work as unpaid family helpers. The earnings of employed women workers are usually less than the male counterparts. Consequently, gender disparities are quite wide in Pakistan despite various international and national commitments including ratification of the Convention on the Elimination of All Forms of Discrimination against

Women (CEDAW), National Plan for Development and Empowerment of Women (2002), the National Plan of Action (1998) and the Government's Poverty Reduction Strategy paper (PRSP). The PRSP is supported by the Millennium Development Goals and identifies gender equality in educational opportunity for gender equality is one of its goals. The Policy of Pakistan's Information Technology also emphasizes the need for training of women and their induction into the ICT sector in order to utilize this largely unused human resource.

In all of these areas, access to information – or lack thereof – has a crucial role to play. Socio-cultural norms that constrain female mobility in order to protect the family's honor limit women and girls' access to educational and health facilities as well as business opportunities, such as workplaces outside the home and marketing (Siegmann and Shaheen, 2009). The limited interaction with the wider society, compounded by poor educational levels, is an obstacle in access to information related to health and hygiene as well as regarding business opportunities.

In Pakistan, a significant foreign investment in ICTs has increased during the past few years. In 2005-06, the communications sector was leading in attracting Foreign Direct Investment with a share of 55% in the total (State Bank of Pakistan, 2006). While in Pakistan during the past few years, the number of mobile phone users and computer applications has increased tremendously; the rural areas are significantly under-served. In a population estimated around 160 million, 68% live in villages however ninety percent

of the ICT-related infrastructure is installed in urban areas. More than two-thirds of the population is thus catered to with just over a million phone lines (Yasin, 2006).

According to a recent study, female respondents have an even more negative perception of their own technological abilities than have male interviewees. Apart from the low regard of women's skill to use technologies, some ICTs themselves have a bad image. Cultural norms may also represent an obstacle in the government's efforts to provide affordable access to ICTs to the rural population through telecommunication centers. Apart from the (e-) literacy issues involved in making telecommunication, computers and internet useful for women and girls in rural areas, their mobility is usually restricted (Siegmann and Shaheen, forthcoming).

Keeping in view the potential of women's empowerment through ICTs, the challenge for gender equality in Pakistan can be addressed through using different tools of ICTs. In recent years, some initiatives have been taken by the government and the private sector. The Pakistan Telecommunication Authority's Rabta Ghar (Communicating with home) is one of these. The main aim of the project is to supply the internet and modern telecommunication facilities through a telecenter in rural and far flung areas. Eligible applicants are those who are unemployed and with minimum intermediate qualifications (Telecentre, 2007). In order to tackle social problems, an initiative titled 'e-jirga' was also launched. *Jirga* is a traditional communal governance structure, which is still used effectively in many villages of Pakistan. Here, the development intervention aims at strengthening the institutional structure of *Jirga* through access of information so as to

empower communities (e-jirga, 2007). Another project consisted of a woman-to-woman video project, which provided an excellent opportunity for illiterate and marginalized segments of society to communicate their views to policy makers (Wickett, 2007). Additionally, the radio programs by Internews created awareness amongst the general public about sexual harassment at the workplace, child labor, family planning, prostitution, and women in politics (Internews, no date). An important project is Dareecha project, which is focusing on localized information technologies. This involves the development of software that allows working with computer and internet in Urdu language and script. The organization provides ICT literacy for rural school students, equally targeting girls and boys.

Despite all these efforts, there remains a long way to go in developing ICTs more fully in rural as well as urban areas. Women's specific needs are usually not considered in ICTs related initiatives. For example, in the 'Rabta Ghar' project, there are no incentives for women entrepreneurs and most of the women applicants are usually disqualified because they do not have the required education.

2. About the research study

The present study is based on the hypothesis that when the access and participation of women is increased in any ICT project, there is a likelihood of increases in the potential of their empowerment. However, they may have to face different barriers including socio cultural barriers and the absence of policy safeguards. Three case studies related to digital

literacy of women, improving maternal health of rural women through satellite phones and e marketing of women made handicraft products were chosen to test this hypothesis. Key informants were interviewed in order to collect the data.

2.1. Case Study 1: Community Technology Learning Centers

In order to build the capacity of government functionaries and non-governmental organizations, the National Commission for Human Development (NCHD), Pakistan was established in 2001. The goal of the Commission is to fill implementation gaps and improve public sector delivery mechanisms to achieve the Millenium Development Goals including Universal Primary Education (UPE), the adult literacy / gender empowerment program, the reduction of population growth, improving infant and maternal mortality and capacity building at the grassroots (National Commission for Human Development, no date).

Keeping in view the substantial rural-urban divide and the lack of employment opportunities for literate women, NCHD initiated the Community Technology Learning Centers in marginalized districts of Pakistan. The main objectives were to remove the digital divide between urban and rural Pakistan; to reduce the gender imbalance in society; to provide state-of-the-art IT education to those who cannot afford or avail it in the remote areas and also to allow the opportunity to acquire jobs and improve living standards.

The initiative was implemented in two phases. During Phase I, a bi partite public private partnership Model was practiced in 2004, in collaboration with the Microsoft Company.

During Phase II, a tripartite Model was introduced, in which district governments (the second order administrative division of Pakistan after provinces) were partnered NCHD with the commitment that they will provide the operational cost in return for NCHD's assumption of responsibilities for providing the technical support, training, curriculum, monitoring and evaluation. Initially, twelve districts submitted expression of interest, out of which only eight districts met the criteria, set by NCHD (Zulqernan M. A. 2010, pers. comm., February 8). The selected districts so far, include Attock, Badin, Gujrat, Mansehra, Mardan, Pishin, Noshehro Feroz, Thatta, Dera Ismail Khan, Jacobabad, Kech, Lasbela, Mandi Baha Din, UmarKot and Zhob.

The NCHD sought fulfillment of two criterions for the selection of partner district,

- 1: Districts where there is no digital literacy
- 2: Districts comprising mainly of rural areas.

In order to formalize the process, a Memorandum of Understanding (MoU) was signed between district governments and the NCHD. According to this MoU, NCHD has to hand over the Community Technology Learning Centers (CTLCs) after three years of successful running to the district government/ local NGOs/ Philanthropists.

The CTLCs are manned by trained professionals who impart *Microsoft Unlimited Potential Curriculum*. CTLC learners are local women residents between the age of 16-40 who hold at least 10 years of school education and, most importantly, demonstrate an urge to propagate digital literacy within the community. The learners have to pay a token

fee of Rs. 500 (7USD), payable over 4 months which can be waived for deserving candidates. There are three to four months sessions in a year, with two hours of contact time, six days a week. (NCHD, 2005). The Unlimited Potential (UP) Curriculum includes digital devices, life skills, including how to interview the people, how to market the skills etc, as well as video recording, and picture management (Zulqernan M. A. 2010, pers. comm., February 8).

2.1.1.The challenges

In some cases the district government provided a full grant, as per the MoU, but partial grants were provided in some cases because of resource constraints.

Firstly, the curriculum, was translated into some local languages, including Urdu (national language) and Sindhi (local language of people mainly originating from Sindh province) as these languages were more understandable for trainees than English. After some time, some problems in district Zhob, including delayed salaries and funds etc. were raised.

The model was very successful in Pishin, Gujrat and Mardan, while in Lasbella, it failed because of bureaucratic hurdles mainly created by the District Coordination Officers, mainly because of power issues. In some cases, the *Nazims* (the coordinators of cities and towns in Pakistan not unlike mayors) wanted to appoint staff of their own choice. When the CTLC was handed over to district Badin , the distrcet government cut the salary

of the CTLC staff, which resulted in increased staff turnover and decreasing motivation levels amongst existing staff (Khwaja, Z. 2010, pers. comm., February 24). In Noshehro Feroz district, the CTLCs were burnt during a wave of violence after the assassination of political leader Benazir Bhutto. In district Umerkot, the CTLC was banned due to bureaucratic hurdles. Moreover, there isn't any safeguard for partners, in the IT policy of Pakistan, for such models.

2.1.2.Learning landmarks:

The NCHD managed some temporary job opportunities for the training participants, mainly of data entry under the Universal Education Project. The trainees entered 1,200,000 records and generated the average monthly income of 6000-7000 Pakistani Rupees (70 - 82USD) per month. In some cases, salaries exceeded 8000 Pakistani Rupees. Overall, 3,200 UP certificates, recognized in 40 countries, have been awarded to the candidates. NCHD's main focus is on training the trainers. In order to kill the sense of stagnancy, NCHD organizes refresher courses every year. The course is designed mainly for females, with only few exceptional cases where the course was offered to only 409 male clerical staff of the local government, out of total 3,200.

Table 1: Cumulative performance of CTLC program since September 2004

District	Capacity Per Batch	General Learner Trained	Govt. Employee Trained	Records Entered	Graduates Employed		
					Got Job	Salary Increment	Data Entry
Attock	10	302	57	295,912	30	0	24
Badin	10	372	18	296,242	50	35	25
Gujrat	15	454	110	953,642	34	0	30
Mansehra	10	309	29	54,000	45	0	18
Mardan	15	152	27	897,250	16	5	22
Pishin	10	322	54	255,453	66	40	46
N. Feroz	15	234	7	769,000	26	2	38
Thatta	10	253	0	93,964	21	8	20
D.I.Khan	12	63	0	0	5	3	-
Jacobabad	12	103	4	0	5	-	-
Kech	12	50	1	0	1	-	-
Lasbela	12	0	0	0	-	-	-
M.B.Din	12	114	0	0	7	-	-
UmarKot	11	76	0	0	3	-	-
Zhob	12	131	0	0	1	-	-
Total	95	2935	307	3615463	310	93	223

Source: NCHD, forthcoming

In Pishin, female mobility restrictions were the biggest barrier to engaging the female group in the training course. Keeping in view this type of strict socio – cultural norms, the NCHD team hired only female trainers and established the CTLCs at women friendly places both in terms of locality / proximity and timings, e.g. for such districts, selection of girls high schools were preferred and mostly the sessions were organized before sunset, as parents of these girls wanted to have their girls back at home before dusk. Otherwise, in other districts NCHD’s policy is to select one male and one female trainer.

So, in this way, NCHD built its trust among the community. Due to the efforts of the female social mobilizers and strong commitment of trainers, some success stories were forthcoming.

2.1.3. Some success stories from the ground

Box1: Success Story of Ms. Farah Nausheen, CTLC Pishin

Farah Nausheen, a resident of Babu Mohallah, the main town in Pishin, and a student of CTLC Pishin, is working as a computer instructor at Khuda-i-Rehman High School. She teaches computer studies to primary school students and is also responsible for maintaining the computer lab at the school. This job has provided her with an opportunity to disseminate that the knowledge she acquired during her training at the CTLC. Prior to her course completion and job acquisition, Farah's monthly family income was Rs. 5,000 (US\$ 83) which was barely sufficient to support a family of 6 members. Now she is earning Rs. 2,000 (US\$ 33) a month, making the total Rs. 7000 by teaching at the high school. The training course at CTLC has helped Farah in supporting her family financially.

[Source: National Commission for Human Development, No date.](#)

In district Pishin, some ethnic communities were more cooperative, especially the *Pakhtoon* community as compared to the Bughti tribe (a local tribe of Balochistan province) who felt that getting digital literacy and then subsequently employment would be against their family honor, which does not allow female members of their community to be in the job market.

Besides Pishin, other success stories arise in the case of Thatta.

Box 2: Success story of Ms. Sumera Khatri, a graduate of CTLC District Thatta

Sumera Khatri, a young and courageous 21-year old girl, lives in the small ancient town of Thatta, which is about 100 kilometers away from metropolitan city of Karachi. Though people of this part of the country are hardworking and peaceful, they experience extreme poverty primarily due to social injustice. Perhaps one of the oldest civilizations of the Subcontinent, Thatta exposes the disparity that exists between Pakistan's rural districts/ areas and the urban centers. This gap has also supplemented the widening gap of the digital divide, especially amongst gender thus restricting the women of these areas from having access to and use of ICTs in order for improving their lives.

Sumera comes from a very poor family whose father, a shop keeper, used to earn bread & butter for his 5 children. Sumera, along with her younger brothers & sisters, was studying until her father suddenly succumbed to a severe illness resulted in closure of his small shop. Subsequently, the sole source of income vanished leaving the family to the mercy and meager financial support of Sumera's uncle laboring in the Gulf. She along with her young brothers & sisters continued going to school and her father's medical treatment was financed through her uncle until he stopped sending money. In result, the children including Sumera stopped their education and their father's health started deteriorating.

By the time CTLC Thatta was established, the family was trapped in a severe financial crisis. Thus an opportunity for Sumera came up in shape of the CTLC equipped with state-of-the-art facilities in the town, which provided her free of cost quality I.T Training. CTLC Thatta, after identifying this young talented but poor girl who had lost her confidence in the wake of severe financial crisis and social problems, enrolled her for a 3 ½ month course in its first ever summer session in the town. She graduated during the month of November, 2005 and was imparted marketable IT skills as well as incalculable "Life Skills" during the course, which not only helped her recovering her confidence and groomed her personality but also enabled her to avail a job opportunity as a Computer Instructor in December 2005 in a private school allowing her access to a decent livelihood. Sumera has been earning Rs.2,000/- since she was employed and has also been disseminating digital literacy amongst young students of the junior section of the Perfect Public School, Thatta. Her efforts also resulted in better medical treatment of her father who restarted his small business and the family is back on its feet. Her young brothers and sisters are back at school and she is also planning to resume her studies during the evenings with the small amount of money that she saves from her earnings. This young courageous and talented girl has not only entirely changed the life of her family but has also become a source of inspiration for her young brothers, sisters, cousins and friends through her hard work, dedication and commitment. She continues to visit CTLC regularly and shares her experiences with other girls. NCHD's CTLC Project with its intervention and untiring efforts has improved the lives of people like Sumera who otherwise would perhaps never get opportunity to have access to free quality IT training.

Source: National Commission for Human Development, No date.

The economic empowerment of CTLC graduates from district Badin is illustrated in box

3.

Box 3: Success story of Saba Turk, a graduate of CTLC, Badin

Saba's unfortunate family was entangled in circumstances that forced her to do something that usually girls of this rural and poor district can't even think of. Though she had courage and ambition, besides intermediate education (grade twelfth), she had little opportunity to earn a decent livelihood to support family's basic needs.

During the summer of 2004, while acquiring training in Micro Enterprise Development, she heard about a computer-training course, almost free of cost, offered by NCHD's CTLC Badin. She decided to seek admission and eventually succeeded.

Her father, the family's lone breadwinner died four years ago, leaving Saba's family of eleven to survive from the paltry income of her mother, a house maid. The Instructors of CTLC Badin helped her a lot, not only in acquiring digital literacy and IT skills but also in supporting and guiding her to plan for her future. Various activities like role-playing, presentations and other extra curricular initiatives inculcate life skills amongst the girls during the training and created confidence. A few days after graduating from CTLC and securing 2nd position, she started applying for jobs in different organizations and schools, under the continued leadership of CTLC. It was CTLC's repute amongst the community and District Government line departments that allowed her to find a job opportunity as Computer Operator/Office Assistant in the Usher & Zakat Department of District Government Badin with a salary of Rs.5,000 (58 USD) per month. Two months later, she got another job offered from an advocate to work part time during the evening (from 6:00 pm to 8:30 pm) as a Computer Operator / Office-Assistant with a monthly salary of Rs.3000 (35USD).

Now her total monthly income has increased to some Rs.8,000 (94USD) per month and she has been able to financially support her entire family beyond their expectations. CTLC Badin has proved not only a center equipped with modern IT facilities and a source of training opportunities for her, but also a hub of activities engaged in life-long learning in the avenues of information and communication technologies.

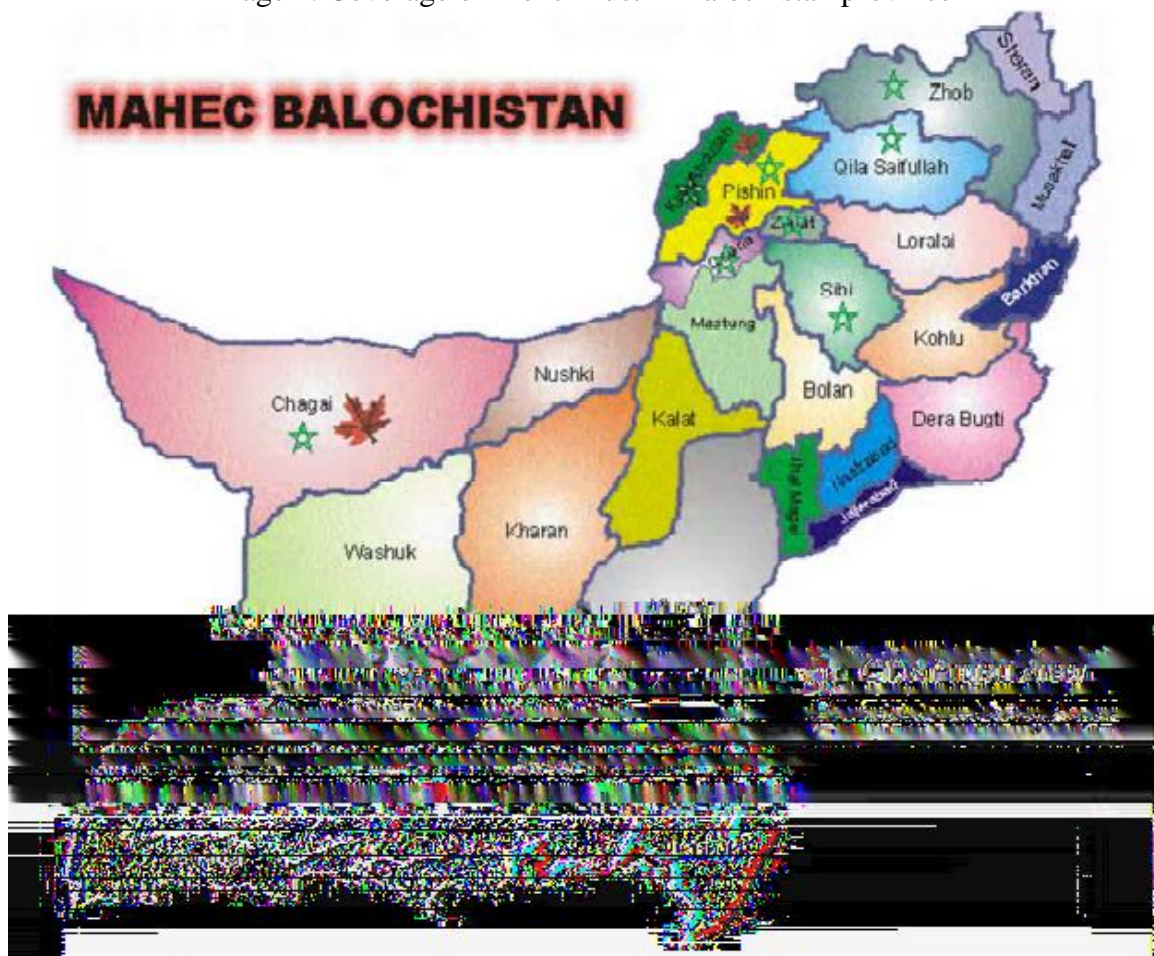
[Source: National Commission for Human Development, No date.](#)

Another reason for increased participation of females in the course was that the fee 500 Rs. (6USD) fee was waived for such a highly credible and internationally recognized training course.

2.2. Case Study 2: Satellite phones for Telehealth

Mehc trust is working for community development and healthcare in many districts of Balochistan province. Balochistan province is geographically the largest province of the country, comprising 43% of the total country area. At the same time, this is the poorest and least populated province. Mehc trust covers the large area of the province, also shown in the map.

Image 1: Coverage of Mehc Trust in Balochistan province



Source: (Panezai, R. 2009, pers. comm., December 17).

Reproductive Tele Health was a capacity building project initiated in 1999 and ended in 2001. The project was funded by the Canadian International Development Agency. This was initially started in three districts including Killa Abdullah, Pishin and Chaghi. The main objectives of the project were to train the community health workers, paramedical staff and traditional birth attendants (TBAs) about the use of satellite phones in healthcare services, especially maternal health services. Another major objective of the project was to create awareness among male partners about the reproductive health of their female counter part. The satellite phones were installed in three Districts (Panzai, R. 2010, pers. comm., February 20).

2.2.1. Major milestones:

Due to the use of mobile phones in labor rooms, facilities were improved, especially in Habibzai Killa Abdullah area. In order to make the project successful, local transporters were also engaged.

Table2: Training Beneficiaries

Beneficiaries	No. of beneficiaries trained
Traditional Birth Attendants (TBAs, already trained, nominated for refresher courses)	76
TBAs in Tehsil Toba Achakzai	20
TBAs in District Pishin	50
TBAs in District Chaghi	20
Paramedics in Pishin	50
Paramedics in Chaghi	20
Total	236

Moreover, another remarkable activity was the engagement of male community members in Pishin district through establishing the health committee and consequently electing one male and two female members into leadership positions. 80% of men were engaged through these committees in the project implementing districts. Furthermore, approximately 20,500 married women of reproductive age have become beneficiaries of the 166 trained TBAs. Mehc Trust provided the venue for the trainings of TBAs. The community also helped in identification of trainees and patients. Because of the poor law and order situation, the community provided security to trainees and the project team. The greatest success of the project was the reduction in maternal mortality rates, which decreased up to 20 % in the selected districts. In appreciation of this project, the Balochistan government is going to replicate the idea into other districts of the province (Panzai, R. 2010, pers. comm., February 20).

2.2.2. The obstacles faced during the project implementation

Reproductive health issues are the least consulted issues in Pakistan generally and in Balochistan specifically, mainly due to cultural and social behavior of the people. The women usually have inferior social status and hence are more vulnerable to diseases.

Women usually seek permission from their husband/ head of the household (who is usually male) before consulting the health service providers. Consequently, the greatest challenge encountered during project implementation was breaking with prevailing norms and introducing reproductive health issues in the project areas. Another challenge was the poor security situation. Since the people were very hesitant even to talk about reproductive health issues, it was very difficult to get them sensitized, especially for

training of TBAs. The team faced a lot of resistance against the use of satellite phones for antennal health care services, because this was totally against of their traditional norms. Moreover, there were continuous changes in the health department of local government, predominantly the transfer of the staff. This posed a serious hurdle for the sustainability of the project because of the continuing need of cooperation from local health departments. The project team tried to ensure the continuation of the project through taking some short term measures, including maintaining the low profile of the project, engaging local village heads and hiring local project staff. On top of these strategies, the involvement of male counterparts was sought in seeking wider participation of females.

Image 2: TBA Kits Distribution (Margha, Distt. Pishin)



(Source: Panezai, R. 2009, pers. comm., December 17).

Image 3: Paramedics training in district Khanozai



Image 4: Elected members of health committee in District Pishin



2.3. Case Study 3: E marketing of handicrafts

The Karaqoram Area Development Organization (KADO), in collaboration with the International Development Research Center (IDRC)-Pan Asia, initiated an e commerce project to establish an e-shopping mall, mainly for handicrafts made by local women. In 2001, KADO developed the first homepage with the support of PAN-IDRC to promote eco- and cultural tourism potentials, share indigenous community experience and research into the ICT and internet applications in the rural mountainous areas of Pakistan. The main project was implemented in 2004 after getting financial support from IDRC Canada. The key objectives of the project were to promote the livelihood of people, especially women, through providing an opportunity to e market their handicraft products, thus increasing the margins of profitability through minimizing the role of intermediaries in seeking the eradication of extreme poverty in the remote mountainous villages. The major components of this project included provision of internet services and action research on e-village, e-school and business incubation concepts. After the successful implementation of this project, the Planning and Development Department of government established a partnership with KADO to set up 38 IT centers in all six districts of Northern Areas (Karaqoram Area Development Organization, no date).

3. The road ahead

Effective community participation is always necessary for the achievement of desired outcomes through any ICT project. Women's participation in any project can only be enhanced through the active participation of male community members, as they are the main decision makers in a typical Pakistani family. Furthermore, there is always a dire need of including the aspects of gender perspectives in any ICT based projects.

There is always a need to provide policy safeguards for public-private partnership models like NCHD's initiative of Community Technology Learning Centers. The Information Technology Policy of Pakistan, which is currently being revised, should address such types of issues. Furthermore, the policy should also include the interventions for women's empowerment and also stress the role of 'old' ICTs such as radio and TV for development in general and women's empowerment in particular. As these ICT tools are easily accessible to women and also have the potential for empowerment.

On the other hand, awareness-raising workshops on the role of ICTs for local development and empowerment should be provided for both women and men. The Government should support such initiatives by NGOs and the private sector with public subsidies.

Computer technologies have become so important that they should be introduced in class 1 at schools. Besides building girls' and boys' capacity, this would help reducing prejudices and negative self-perceptions about girls' technological skills.

Computer equipment should be available in languages other than English in order to make contents accessible to women and girls in particular and to allow their own development of contents, such as websites. The Government should use resources from the Universal Services Fund or the National ICT Research and Development Fund to upscale programs for localized computer content, such as the Dareecha project, to all districts.

ICTs have the potential to overcome some of the constraints women face in earning their own money. E-marketing of women's products, such as handicrafts, can help them to generate income and avoid exploitation through middlemen. Such types of models should also be encouraged through policy.

Women-managed businesses in rural areas, such as home-based public telephone booths (PCOs), may have the double benefit of providing women and girls with socially acceptable access to telecommunication and other ICTs as well as generating income for rural women. The Government and private sector should support ICT-related women's businesses, e.g through micro-loans, managerial training and support with technological infrastructure and skills.

The establishment of a gender-working group in IT ministry can ensure that these concerns are being taken into account. Progress in bridging the gender digital divide should be monitored with the support of gender-disaggregated IT indicators to be

compiled by the Federal Bureau of Statistics, focusing on access and use, rather than technical infrastructure alone.

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