

## SOCIAL DEVELOPMENT & INFRASTRUCTURE

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Making Information & Communication Technologies and  
Their Applications Work for Women and Men

Tools for Task Teams



December 2010

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## Acknowledgements

These resources were compiled and adapted by Mari Clarke, under the guidance of Nilufar Ahmad (Task Team Leader), for the Social Development Department. The good practice cases were prepared by Caroline Mendizabal-Betancourt. This work was carried out in collaboration with the Gender Focal Points of the ICT Sector. Samia Melhem provided extensive comments, updates and suggestions for the resources. Kayoko Shibata Medlin, Victoria Stanley, Nina Bhatt, Anne Kuriakose, Helle Buchhave and Florian Kitt provided valuable comments and suggestions. Mavis Ampah (TTL, e-Ghana) provided information and comments for the e-Ghana good practice case.

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This activity was partially financed by the Gender Action Plan.

# Guide for Using the Tools

## Objective

The primary objective of this initiative is to provide brief, relevant, and practical tools for World Bank task teams and their country counterparts to facilitate their work in addressing gender and other social issues in Information and Communications Technologies (ICT) policies and projects, and ICT applications in other sectors. This responds to the need expressed by task teams to repackage and condense existing gender and ICT tools in formats more relevant to ICT operations. These tools can also be used for training on gender and ICT. The term “tool” was selected to convey the notion that these materials are nuts and bolts resources to be used when needed; and to emphasize that they are suggestions, not requirements or directives.

## Organization

In recent years, ICT applications have transformed the field of communications and technology, as well as other sectors. Therefore, these tools are divided into three parts: Part 1) those focused on ICT, and gender and social dimensions in ICT policies and projects, Part 2) integration of gender and social dimensions in applications of ICT in other sectors (education, small and medium enterprises, tele-centers), Part 3) Resources, including good practice case studies, web-based networks, and suggested resources are also included.

## Suggested Use of the Tools:

### **Introduction: (a) Why Gender is an ICT Issue and (b) approaches to integrate gender in operations.**

The introduction provides (a) key gender issues and rationale for addressing gender in its broader social context in ICT policies and programs, and its applications in other sectors; and (b) approaches to integrate gender in ICT sector operations. This can also serve as a resource for dialogues with clients and within teams that attention to gender can reduce risks and enhance benefits to marginalized groups and steps needed for gender integration.

### **Part I: Integrating Gender into ICT Country Policies and Projects to Bridge the Digital Divide.**

- 1. Entry points for Gender and other Social Dimensions in ICT Policy Dialogue: Bridging the Gender Digital Divide.** The first tool is a checklist for entry points for mainstreaming gender and other related social dimensions of ICT in policy dialogue e.g. for Poverty Reduction Strategy Papers (PRSPs), Country Partnership Strategies, Country Assistance Strategies, and Country ICT Sector Strategies. While all of the items may not apply to a given policy or strategy, they provide suggestions for key entry points and actions to take.
- 2. Rapid Gender and ICT Review Questions.** The second tool provides a list of questions for task teams to assess whether and the extent to which gender, in its broader social context, is likely to be an issue in the project at the project concept note stage. Not all questions apply to all projects. If the review identifies gender-based risks, constraints or opportunities for greater development effectiveness by addressing gender, further gender analysis during the preparation phase can identify actions for reducing gender-based constraints and disparity and increasing equitable benefits.
- 3. Key Questions during ICT Project Cycle for Integrating Gender and other Social Dimensions.** The third tool is a set of questions identifying entry points for mainstreaming gender and other related social

dimensions of ICT in planning, implementation, supervision and evaluation of projects. While all of the items may not apply to a given project, they provide suggestions on key entry points and actions to take.

4. **Developing Quality Project Gender Plans/Frameworks.** The fourth tool describes the purpose of gender plans/frameworks when gender is a significant factor that needs to be addressed in an ICT project. Where the preceding checklists assess whether or not gender is an issue and flag areas needing attention, the gender plan provides a blueprint for implementing gender-targeted interventions within project components. Gender plans/ frameworks can be incorporated into social frameworks or treated as stand-alone tools. It presents key steps for quality plan development and also provides a good practice example of a gender plan, linked to the gender-relevant ICT project components that can be adapted to other projects. The example also illustrates that these plans need not be complex to provide a valuable tool for tracking planned gender activities in an ICT project.
5. **Bridging the Gender Digital Divide in ICT projects.** This tool is a matrix presenting some of the effective approaches to promote greater inclusion and access for all users, thus enhancing project effectiveness and sustainability.
6. **Gender Evaluation Methodology for ICT.** The sixth tool provides the steps for a gender-responsive evaluation process.
7. **ICT Results: Examples of Gender-Responsive Indicators.** The seventh tool provides examples of gender-responsive indicators that can be used to measure progress towards gender outcomes. The list is illustrative not exhaustive. No project will need all of the indicators.

#### **Part II: Integrating Gender into Applications of ICT**

8. **Overcoming the Gender and Digital Divide through Tele-centers and E-Centers.** This tool provides key questions and considerations for facilitating that women's as well as men's knowledge, needs, and interests are incorporated in distance learning content development in a participatory manner.
9. **Gender-Sensitive ICT Development for Small and Microenterprises.** Tool nine provides steps for integrating gender considerations into the development of ICT small and microenterprises.
10. **Using ICTs for Education and Teacher Professional Development.** Tool ten summarizes the applications, strengths and limitations of radio, television, computer/internet; and online distance learning for teacher professional development and student education.

#### **Part III: Resources**

11. **Good Practice Cases.** This tool includes two ICT good practice cases that illustrate the use of effective approaches for mainstreaming gender and improving project effectiveness and sustainability.
  - a. E-Ghana
  - b. Replication of the Village Phone Program
12. **Web-based resources.** Tool twelve provides web addresses for web-based groups with useful resources and initiatives on gender and ICT. This list is not exhaustive. Additional site suggestions are welcome.

13. **Suggested Reading.** The final tool provides a list of reports and articles addressing various aspects of gender and ICT issues in rural and urban areas. This also is not exhaustive. Additional suggestions are welcome.





## Introduction:

### (a) Why Gender is an ICT Issue

Information and Communication Technologies (ICT) are reshaping the nature of global economic, social and political life by transforming the way that markets and production are organized as well as the manner in which information is shared. ICTs offer flexibility in time and space, access to knowledge and productive resources, and a pathway out of isolation. For example, mobile phones and the internet have had a significant impact on economic productivity, access to market information, government efficiency and transparency, and emergency health care and medical information services.

**Existing gender disparity:** A common misconception in ICT planning is that the use of technology to accelerate development will benefit all people equally without special measures to reach all groups. In many low income countries, women face greater constraints than men in accessing and using ICTs and in getting jobs in the ICT sectors. Lack of education is a greater barrier for women than men; an estimated two thirds of the world's illiterates are women. Science and technology is considered a male domain in many cultures. Training in ICT skills may not be tailored to women's needs. Social and cultural factors may limit women's access to shared ICT facilities such as cyber-cafes, which often become meeting places for young men, and hence deter female adoption of ICTs to access information and knowledge. Most women and girls lack the financial resources to purchase radios, televisions, or computers or to pay service providers for access to the Internet. Most of the content on the Internet in low income countries does not respond to the needs of women and girls, nor is it available in the languages they speak.

**Lack of women ICT related employment, especially at the management level:** Globally, women are under-represented in ICT decision-making structures (e.g. policy and regulatory institutions, ministries and boards of ICT companies). Within the ICT industry, women are found in disproportionately high numbers in the lowest paid and least secure jobs at the lower end of the supply chain (such as data entry, phone operations, clerk and administrative), with no health insurance or other benefits. While tele-working gives women a new range of employment options that can be combined with domestic responsibilities, it may exclude women from better career possibilities. Men predominate in higher paid work in hardware and software engineering and management. Increased demand for more advanced skills, as the technology in the ICT sector rapidly changes, means that workers must continually upgrade their skills. However, women are at a disadvantage given their multiple roles in work, family, and the community.

**Opportunities:** Despite these challenges, the rapid expansion of ICT in lower income countries holds great promise for women's participation in modern technology supporting economic activities. The introduction of new types of jobs in this sector has expanded the labor market for all. In addition, the ICT landscape is expected to change for women as increased efforts are being made by some governments to reduce the salary gaps in ICT jobs (which benefit from being in a new sector, attracting young and entrepreneurial women) and to change policy formulation in order to attract young women and adolescents to science and technology careers and on the job training. Research has indicated that leadership and positive role models often transform traditional mindsets and behaviors related to access to ICTs and sciences and technology; thus we see in some countries media campaigns launched by government agencies to promote the use of ICTs by women for socio-economic empowerment, and setting of special funding for women-owned small and microenterprises for ICT (South Africa, Qatar, UAEs, etc.).

Business incubators for ICT entrepreneurs, such as BusyInternet Ghana, have facilitated the set up and growth of women’s and men’s ICT businesses by providing access to physical infrastructure (office space, computers, internet access) and expert business development services. Similarly, the rapid spread of mobile telephones to over four billion people has revolutionized the way women communicate and have access to information. Mobile phones have helped women learn text messaging, which they are starting to use to subscribe to information services or to perform banking operations.

ICTs can also give women the opportunity to be agents in their own empowerment, using conventional ICTs such as radio to access information sources and communication processes to achieve their own goals. Women and their organizations around the globe are negotiating the “digital divide” and using ICTs when available to get around the constraints that they face in politics, society and the economy.

## (b) Approaches to integrate gender in operations<sup>1</sup>

### Definitions of Key Terms: Gender, Inclusion, and Empowerment<sup>2345</sup>

**Gender is not another word for women:** Gender refers to the socially constructed roles, and socially learned behaviors and expectations associated with males and females. It is about women *and* men, their socially defined roles, responsibilities, and the power and other relations between them. Like race, ethnicity, and class, being male or female shapes individuals’ opportunities to participate in the economy and society.

**Gender equality** refers to equality under the law, equality of opportunity (rewards for work, equality of access to human capital, and other productive resources), and equality of voice (ability to influence and contribute to the development process).

**Empowerment refers to change in relationships among individuals and groups.** Empowerment is a process of enhancing an individual’s or group’s capacity to make strategic choices and transform those choices into desired actions and outcomes. This involves improving their assets and their capabilities so they can become agents of positive social change on their own behalf.

**Social inclusion refers to change in institutions.** Social inclusion refers to the development of inclusive institutions, policies, social norms, and behaviors that provide an opportunity for previously marginalized groups to increase their voice and access to assets.

**Social analysis and sustainability:** Social analysis is an integral part of the project cycle, especially during preparation and appraisal, as it helps task teams to understand the inherent differences between social groups, constraints and risks. It also identifies possible actions that can be taken to reduce disparity and enhance opportunities that can facilitate improved social and economic impacts of investments, and makes development more equitable and sustainable. Social analysis is often informed by a social assessment undertaken by client

<sup>1</sup> Adapted from World Bank (2003), Social Analysis Sourcebook: Incorporating Social Dimensions into World Bank Supported Projects.

<sup>2</sup> World Bank (2001), Engendering Development through Gender Equality in Rights, Resources, and Voice. New York: Oxford University Press.

<sup>3</sup> World Bank (\*2006), Gender Equality as Smart Economics: A World Bank Group Gender Action Plan

<sup>4</sup> World Bank (2008) Social Development and Infrastructure: Working in Partnership for Sustainable Development. Social Development Department.

<sup>5</sup> OECD/DAC (2004), Why Gender Matters in Infrastructure. DAC Working Group on Gender Equality.

country as part of project design, especially when social safeguards are triggered. If there is no project social assessment, this analysis relies on other upstream work by the Bank or other agencies.

**Gender analysis:** Women and men comprise the largest social groups. Gender analysis is usually undertaken within social analysis; and includes examination of gender-based roles, responsibilities, access to resources and power relations, as well as needs and constraints. This is carried out through a number of instruments, including desk review, survey and consultation with women and men; and contributes to the social sustainability of operations by facilitating (a) equal participation and “voice” of both women and men; (b) reduction of gender specific risks, if any; and (c) enhanced social and economic opportunities for poor and marginalized women.

In World Bank operations, gender integration is usually undertaken in the following way that is aligned with the project cycle:

**Step 1: Rapid gender review** of the proposed operation at the identification or concept stage. The project task team conducts this review supported by a social development specialist with gender expertise. A checklist (Tool 2) helps the team to undertake this review and identify key gender issues, potential risks and benefits. Consultations with women and men can also provide in-depth information. If the review identifies substantial gender-based risks and constraints in accessing project benefits, further gender analysis can be undertaken during the preparation phase for identifying actions for mitigation. If there are no significant gender-based constraints and risks, further steps on gender analysis and actions may not be necessary. The findings of the rapid review can be documented in the project concept note (PCN).

**Step 2: Gender-responsive social analysis:** the counterpart government usually undertakes social and/or environmental assessments, especially when safeguard policies are triggered. The Bank task team comments on the TOR and supports the field survey and gender inclusive consultative process. Findings of gender analysis identify possible actions and indicators; and can be incorporated into the project design and Bank’s Project Appraisal Document (PAD). Consultations with women and women’s groups can help **prioritize** key gender actions. A gender plan or framework, with activities, budget and targets can also be developed that helps monitoring progress and getting results. In an ICT project, for example, separate toilets for women and men in cyber cafes are considered gender-responsive activities. Projects can also take targeted activities such as a quota for women’s skill development and employment in IT enabled service (ITES) industry.

**Step 3: Implementation Support:** Bank team provides regular implementation support to activities and monitors progress using the indicators established in the Results Framework, which are usually recorded in the ISR. If needed, capacity building support can be provided to counterpart governments and implementing agencies.

**Step 4: Completion and Impact assessment:** Bank team can support a gender-responsive mid-term review and end project evaluation; which helps document gender-based outcomes in the Implementation Completion Report (ICR).

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*Sources:* Anand, Jyotsna.2008, Telecommuniting: an Indian Perspective. In Creating a World of Opportunities: Gender and ICTs. Special Issue of Information for Development (I4d. Vol VI no.7. p16-17. ; Gurumurthy, Anita 2004. Gender and ICTs Over View Report, BRIDGE, Institute for Development Studies UK, Melhem, S, C. Morrell, and N. Tandon. 2009, Information and Communication Technologies for Women’s Socioeconomic Empowerment. World Bank Working Paper No. 1276. Tandon, Nidhi, 2008. Information and Communication Technologies. Thematic Note 4. , Module 9, Infrastructure, Gender and Agriculture Sourcebook. World Bank, FAO and IFAD). World Bank 2005, Gender and ICT Toolkit.

# **PART I**

## **Integrating Gender into ICT Country Policies and Projects to Bridge the Digital Divide**

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The first set of tools support the integration of gender and other social dimensions into ICT Policy and the ICT project cycle. The information gathered using these tools can be incorporated into environmental and social assessment, poverty and social impact assessment, involuntary resettlement action plans, social frameworks, project implementation plans, monitoring and evaluation plans, and other mechanisms used routinely during project preparation, supervision/monitoring, and evaluation.

## 1. Entry Points for Gender and ICT Issues in Country Policy Dialogue: Bridging the Gender Digital Divide

This check list provides suggestions to identify entry points and actions needed for integrating gender and social dimensions of ICT into country policy dialogue (e.g. PRSP, Country Partnership Strategies, Country Assistance strategies, country ICT sector policies and strategies). Each of the points listed can provide an entry point for a dialogue if it is in place in the client country. If not in place, some of the points (such as attention to gender in sector strategy and procedure) could provide the basis for dialogue on actions needed, depending on the stage of development of sector policy and procedures. It could also lead to discussion of possible capacity building needs of the client agency. Any dialogue would tap only some of the entry points and actions, not the entire list.

### Gender Entry Points in ICT Policy

ICT policy generally covers telecommunications, broadcasting (radio and television) and the Internet. National and regional levels may have their own decision-making bodies. It is essential to examine gender issues and other related social dimensions early in the process of introducing ICT in developing countries because ICT is not gender neutral. Governments also need to look at other sectoral policies that could adversely impact on a gender-responsive national ICT policy. Other sectoral policies can affect training and literacy (basic skills and skills training), issues of human resource and employment (employment schemes, paid and unpaid work in the area of ICT) and other related legal issues that can impede women's active participation. It is also important to recognize that policies in other sectors can also affect access to employment and services for women differently than from men, particularly education and training, labor law, and laws pertaining to property ownership. The checklist below lists gender-related questions regarding key ICT issues that can be raised where appropriate in policy dialogue for PRSPs, Partnership Strategies, Country Assistance Strategies and ICT sector policies and strategies.

ICT Issue	Gender Aspect
<b>Infrastructure Access and Appropriate Technology</b>	
Infrastructure	<ul style="list-style-type: none"> <li>▪ Will the ICT infrastructure be deployed throughout the country including rural areas?</li> <li>▪ Are there provisions for high technology applications in areas where many women live outside the capital and major cities?</li> <li>▪ Are women restricted from accessing available ICTs more than men due to social, economic, cultural or technological constraints?</li> </ul>
Network Modernization	<ul style="list-style-type: none"> <li>▪ Does the proposed modernization provide ICT infrastructure that is affordable to most women as well as men?</li> </ul>
Network Architecture	<ul style="list-style-type: none"> <li>▪ Will the equipment and service providers offer cost effective and appropriate ICT solutions for the majority of women as well as men?</li> </ul>
Network Deployment	<ul style="list-style-type: none"> <li>▪ Do the network infrastructure choices focus on universal access or expensive high-capacity specialized access?</li> <li>▪ Will affordable technology such as wireless alternatives be used to ensure low cost and affordable access?</li> <li>▪ Will women as well as men be included in the training when new technologies are implemented?</li> <li>▪ Will the location of infrastructure facilitate access for women as well as men?</li> </ul>
Technology Choice	<ul style="list-style-type: none"> <li>▪ Will the service be affordable? This is a key issue for poor women.</li> <li>▪ Are there limits on new players and new technology that might bring down the cost ( e.g. Wi-Fi Internet)</li> <li>▪ Were assessments undertaken to determine appropriate technology choice based on who will use it for what purpose (men, women, youth, others)?</li> <li>▪ Is there support for user-friendly technology, particularly where literacy levels are low?</li> </ul>
Sector Liberalization	<ul style="list-style-type: none"> <li>▪ Is the Telecommunications and ICT sector open to competition that can bring in needed investment and end user prices to make access affordable, particularly for women who usually have fewer resources?</li> </ul>

Universal Access	<ul style="list-style-type: none"> <li>▪ Have telecommunications development funds and other programs, funded by carrier fees and other revenues, collected by regulators, been established to facilitate expansion of access to the underserved?</li> <li>▪ Are there gender-responsive universal access policies stressing public access points as an alternative to more capital intensive choices ( e.g. one line per home) and ensuring that access points are appropriate for women as well as men ( e.g. not in bars or autoshops)?</li> </ul>
Universal Service Obligations	<ul style="list-style-type: none"> <li>▪ Do regulators mandate provision of telecenters in underserved areas as a part of the obligations required of operators in return for licenses in order to contribute to universal service goals?</li> <li>▪ Do telecenter plans take into account the different needs of women and men in concerned communities?</li> <li>▪ Are service providers required to offer telephone subsidies or price packages targeted at rural women, the disabled and aged?</li> </ul>
<b>Regulatory Framework</b>	
Regulatory Frameworks	<ul style="list-style-type: none"> <li>▪ Do regulatory frameworks permit the re-sale of mobile phone services which can often be profitable businesses for women?</li> <li>▪ Do regulatory frameworks reduce licensing fees, spectrum prices, and interconnection charges that can make ICT more accessible to women?</li> </ul>
Tariff Policy	<ul style="list-style-type: none"> <li>▪ Are the import duties and taxes on computer equipment and the pricing schemes for communication services high? These costs deter use by women.</li> <li>▪ Has there been rebalancing of international and domestic tariffs to prepare for competition in the telecommunication sector? Higher fees for local services hit the poor, particularly poor women, the hardest.</li> </ul>
Regulation	<ul style="list-style-type: none"> <li>▪ Do the rules set by regulators set a framework for universal access and affordable services? Regulators do not set policy; they help in its implementation.</li> </ul>
Independent Regulators	<ul style="list-style-type: none"> <li>▪ Do independent regulators compel the private sector to deliver on social and gender policy services such as universal access, providing service to poor women as well as men in underserved areas?</li> <li>▪ Do regulators provide funds for research, development and testing of technology that can serve women in addition to that which is designed to serve men?</li> <li>▪ Do licensing requirements to fulfill community service obligations also address gender disparities in access?</li> </ul>
Radio Frequency Spectrum	<ul style="list-style-type: none"> <li>▪ Are the fees low to encourage provision of service to new markets, including women?</li> <li>▪ Are licenses equitably and transparently distributed so that women-owned businesses and businesses that serve women have an opportunity to secure licenses?</li> </ul>
Licensing	<ul style="list-style-type: none"> <li>▪ Are fees for telecommunications, internet providers and mobile service licenses high? If so, providers pass the cost to customers, increasing the cost of services and discouraging poor people's use of them, particularly women, given their more limited resources.</li> <li>▪ Are licensing procedures transparent?</li> <li>▪ Are any licenses set aside for women-owned businesses?</li> <li>▪ Are licensing fees waived for women-owned and other businesses that provide services to underserved populations?</li> <li>▪ Do licenses obligate providers to offer discounted services to poor customers in certain areas?</li> </ul>
<b>Development Applications and Capacity Building</b>	
Research and Development and Innovation	<ul style="list-style-type: none"> <li>▪ Are there incentives encouraging women to engage in ICT research and innovation?</li> <li>▪ Are tools and software developed using local languages?</li> <li>▪ Is there research and development on technologies for illiterate and low literacy users?</li> <li>▪ Are there subsidies for research efforts and programs that promote women innovators?</li> <li>▪ Are there scholarships for girls and women in science and technology?</li> <li>▪ Do technology programs promote and accept women's participation?</li> </ul>
Systems for Learning and Training	<ul style="list-style-type: none"> <li>▪ Do women and men have equal access to technology training?</li> <li>▪ Are programs supported to train women in ICT technical and management programs? Are internship opportunities offered after training?</li> </ul>
Software Applications	<ul style="list-style-type: none"> <li>▪ Do women as well as men have a say in what applications are being promoted?</li> <li>▪ Are the applications usable or accessible to many women?</li> <li>▪ Does the policy support free and open source software and operating systems that can make them available to communities with limited budgets?</li> </ul>

Building Technological Capacity	<ul style="list-style-type: none"> <li>▪ Are opportunities extended to women as well as men?</li> <li>▪ Are there mechanisms for women to enter ICT fields and training programs and become role models for young girls?</li> <li>▪ Are training opportunities available for non-professionals to use ICTs?</li> </ul>
ICT Industry Development and Labor Policies	<ul style="list-style-type: none"> <li>▪ Are there incentives for women to enter all levels of the ICT labor force, not just the menial electronic assembly jobs they have occupied in the past?</li> <li>▪ Are there policies to encourage tele-working which has facilitated employment of women in the past?</li> </ul>
ICT Business Development and e-commerce	<ul style="list-style-type: none"> <li>▪ Does enabling legislation for e-commerce encourage women entrepreneurs as well as men?</li> <li>▪ Are telecenters promoted for business development to provide economic opportunities for women as well as men?</li> <li>▪ Are there training programs on establishing ICT-related businesses (e-commerce, telecenters, wireless company ownership)?</li> </ul>
e-Government	<ul style="list-style-type: none"> <li>▪ Do e-government services, especially land and voter registration, benefit women as well as men?</li> <li>▪ Does the online availability of government services reduce travel requirements for women as well as men?</li> </ul>

Source: Adapted from UNDP. 2007. Gender and ICT E-Primer. Asia Pacific Development Information Program, Pp. 42-45.

#### **International Telecommunications Recommendations for Gender Response ICT Policy-Making and Regulatory Agencies**

- Promote social and gender analysis as a part of the policy process
- Develop and establish systems to gather gender statistics
- Promote dialogue with other ministries and regulatory bodies
- Ensure equal hiring and wages for women and men regardless of age or ethnicity
- Develop campaigns to attract women professionals
- Develop appropriate support systems for professional women and men
- Provide equal access to training
- Support technical and management programs that train women
- Provide gender awareness training for men and women
- Promote the development of business assistance programs and partnerships with expertise in assisting women entrepreneurs
- Award a percentage of licenses to women-owned businesses
- Include universal access and social responsibility in license award criteria

Source: Adapted from UNDP. 2007. Gender and ICT E-Primer. Asia Pacific Development. p. 56 Information Program, .

## 2. Rapid Gender and ICT Review Questions

This tool was developed in response to requests from task teams and it emphasizes the importance of assessing the extent to which gender may be an issue in a project from the very beginning of the project cycle, rather than as an afterthought. The tool provides a series of questions, from which task teams select those most relevant. If the review identifies gender-based risks and constraints in accessing project benefits, and also opportunities, further gender analysis during the preparation phase can identify actions for reducing gender-based risks; and providing equitable benefits. If there are no significant gender-based constraints and risks, further gender analysis and actions may not be necessary. The findings of the rapid review can be documented in the project concept note (PCN) and inform the design of environmental and social assessments and other studies conducted during project preparation and appraisal.

**Country Institutional Context** *(If responses are mostly positive, the proposed project can design gender-responsive actions for supporting national mandate, assist reducing disparity and promote equitable benefits)*

- Does the country have policies or laws related to gender equality or equity that apply to ICT ( e.g. labor laws, property and business ownership, opening bank accounts, holding public office)?
- Does the ICT sector have strategies or policies that address gender issues? Are there universal service and access regulations to promote improved access for the poor, rural users, particularly women within these groups?
- Do existing ICT policies and regulations (particularly licensing, fees, pricing structures, and procurement processes) disproportionately constrain access, business and employment opportunities for the poor, particularly women?
- What are the key social, cultural or legal constraints of female access to ICT services, jobs, and business opportunities ( e.g. time constraints, literacy/education, language, location, restrictions on mixed gender meetings, laws related to property ownership and bank accounts)? Do these vary in significant ways by other social characteristics that also need to be addressed (ethnic, minority, rural/urban, age)?

**ICT Needs** *(If there are gender-based differences in needs, better understanding and targeting of ICT can improve project benefits for all)*

- What are the information needs of women and men in different target groups for ICT services ( e.g. farmers, traders, entrepreneurs) and existing options to address them?
- Which information channels reach women and men in these groups ( e.g. radio, Internet, mobile phones)?
- Do women and men access and use project-specific ICT differently (time of use, location, purpose etc)? Does this vary significantly by social characteristics (ethnic, minority, rural/urban, age) in ways that need to be addressed in the project?
- Do women and men have specific ICT training needs?

**Economic Opportunities** *(The proposed project can provide equal economic opportunities for both women and men)*

- Is the project expected to facilitate employment creation or income generation?
- What are the financial constraints for women's and men's access to ICT services, jobs and business opportunities (e.g. access to credit, discretionary funds, cost of fees, licenses)?
- Do science and technology, and specific ICT education and training encourage participation of females as well as males?
- Do women and men have the skills needed to access ICT services, jobs or business opportunities?

**Access to health and Education** *(If responses are positive, the proposed project can improve health and education)*

- Are there high rates of maternal mortality? Can ICT provide low cost referrals, emergency advice, and manage health information to help address this problem?
- Are there low rates of school enrollment and completion, particularly for girls? Can ICTs provide affordable, quality distance learning and teacher training for women to help address this problem?



**Gender-related Risks** (*If there is difference, the proposed project can take actions for reducing risks*)

- Are ICTs used to demean, harass or exploit women and girls ( e. g. perpetuation of gender stereotypes, pornography, trafficking)?

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**Sources:** Adapted from USAID 2005. Creating and Sustaining Superior Project Performance through ICT. Prepared by Janice Brodman for ICT Team.

### 3. Key Questions during ICT Project Cycle for Integrating Gender and other Social Dimensions

This tool provides key questions for identifying potential entry points and actions for addressing gender and other social issues during each phase of the project cycle. This also includes suggestions to identify opportunities, risks and benefits for designing effective projects with positive distributional impacts. These questions can be answered through social assessments, environment and social impact assessment (ESIA), poverty and social impact assessment (PSIA) and/or other assessments. All points may not apply in a given project.

#### Project Identification and Project Concept Note (PCN)

- Does the task team include a gender or social development specialist with experience in gender and ICT and/or consult with gender experts in the client country?
- Was a rapid gender and ICT review (Tool 2) conducted to identify potential gender and other social issues and impacts affecting access to services, employment and entrepreneurship opportunities as well as risks and benefits?
- If any ICT-related gender or other social issues were identified in the rapid review, were they discussed in the project concept note?

#### Preparation and Design

**(If the rapid gender review identified significant gender issues that need to be addressed, then the following are key question for undertaking a gender-responsive design):**

- Do the draft Social and Environmental Assessment TORs include relevant gender and other social issues, particularly gender differences in ICT needs, use, constraints, and access to services, jobs and business opportunities )that were identified at the concept stage?
- Did the social assessment conducted by the client collect and analyze data to identify gender differences and constraints in access to and use of ICT, as employment and business opportunities in ICT?
- Were both females and males affected by the project included in stakeholder consultations? Were separate male and female focus groups used to enable women to voice their views separately from men?
- Were gender-related issues that need to be addressed identified? Were approaches for addressing the identified gender-related issues developed (e.g. changes in fees, licensing, universal access policies, increased use of low cost service technologies, location of telecenters where women as well as men can use them, research and development and specific ICT training targeting women as well as men, organizational capacity building, grants programs, targets for women’s participation)?
- Was the prioritization of gender-responsive activities within project components done in consultation with both women and men who are expected to benefit from the project?
- Were indicators developed for measuring progress on ICT-related gender issues within the relevant project components?
- If relevant to project development objective, were relevant inter-sectoral linkages such as ICT based health information and referral, access to education/ training, and market information also examined?

## Appraisal and Project Appraisal Document (PAD)

- If gender was identified as an ICT issue, were the actions for addressing key gender and related social issues incorporated in the Project Appraisal Document?
- Were adequate resources included in the budget for gender-related activities?
- Does the institutional capacity development component include ensuring that the implementing agency has the capacity to manage and monitor the gender and ICT activities effectively? Provide capacity building and facilitate access to local gender expertise, if needed.
- Is the beneficiary data disaggregated by sex in the results framework and include gender equality indicators where appropriate?

## Supervision and ISRs

- Does the project operation manual clearly explain the gender and ICT activities and the requirements for implementation, monitoring, and evaluation?
- Do the procurement requirements provide incentives for women-owned ICT businesses to participate? Are contractors for telecenters, large and small mobile phone providers and other service providers encouraged to subcontract with women-owned ICT businesses?
- Do women and men have access to project ICT resources including training and facilities as well as services?
- Does ICT content respond to women's as well as men's information needs?
- Does the project implementation team involve gender/social and ICT experts throughout the life of the project?
- Is the baseline team collecting, analyzing and reporting sex-disaggregated beneficiary data and other relevant gender information?
- Are the project gender outcomes being recorded in the ISR?
- Have any gender-specific risks identified during planning been mitigated?

## Monitoring and Evaluation and Implementation Completion Report (ICR)

- Are sex-disaggregated beneficiary data and relevant measures of gender equality integrated into the baselines and other routine ICT monitoring and evaluation processes? Do they measure impact as well as level of use?
- Are gender-responsive data collection methods used to gather baseline and other data(e.g. is information collected from women as well as men, using female as well as male data collectors speaking in local languages)?
- Are there measures for the impacts of the project components on women and men?
- Does the mid-term review examine progress toward addressing gender issues identified in the project design? Are mid-term corrections needed to ensure that gender issues are addressed?
- Will counterparts need technical support to conduct a gender-responsive mid-term review and end of project evaluation to assess the ICT related gender impacts?
- Were the gender and ICT related results, good practices and lessons learned included in the Implementation Completion Report?
- Is there a plan to disseminate the evaluation findings and lessons learned and use them to inform other policy and projects about gender and ICT issues?

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**Source:** Adapted from the World Bank 2006, Engendering ICT Toolkit, updated by Samia Melhem, June 2008, and USAID 2005. Creating and Sustaining Superior ICT Project Performance through Gender Sensitivity. Prepared by Janice Brodman for ICT team.

## 4. Developing Effective Project Gender Plans/ Frameworks

### Why Use Project Gender Plans/Frameworks?

Gender plans or frameworks are valuable roadmaps for project implementation when gender emerges as a significant issue requiring interventions in one or more project components. In contrast to check lists which identify gender constraints and flag possible entry points that might occur across ICT projects, a gender plan charts the objectives, activities, indicators, and targets for specific gender-related activities within a project's components, providing a means to monitor their implementation and make mid-course corrections, if needed. Gender Plans can also be incorporated into Social Development Frameworks. An Asian Development Bank gender assessment of programs it has financed found that well designed project gender plans contributed to the achievement of overall project objectives by reducing the vulnerability of women and their families to poverty and by enhancing the benefits to the poor. Gender plans did this by identifying constraints to poor women and men as well as actions for addressing them. This has resulted in more equitable access to project and program resources including skills training, technology, and government services. Gender plans also contributed to progress toward gender equality in decision-making patterns in the household, mobility, and leadership of community-based organizations.

### Good Practices Needed for Well Designed Gender Plans or Frameworks

Gender plans are most effective at delivering results when they incorporate the following good practices. No single element by itself is a formula for success.

#### **1. Counterparts are responsible for designing the gender plans.**

- The first step is to undertake a quality social and gender assessment for designing the project.
- A participatory social/gender assessment can facilitate practical gender plans with targets.
- A social/ gender assessment can identify gender-based constraints that hamper equal participation of and benefits to women and men from the proposed project.
- If there are constraints, the next step is to design actions for projects to ensure that women and men can participate and benefit equally from project interventions.
- Counterparts may need capacity building and/or technical assistance in developing these plans.

#### **2. Integrate Gender Plans into the overall project design and project implementation process.**

- It is important to test and review gender plans early in implementation.
- The next step is the identification of realistic activities, targets, resources, and responsibilities for implementation and incorporation of these items into the project implementation plan.

#### **3. Identify realistic gender targets linked to project objectives.**

- Realistic targets and actions enable step-by-step progress by bringing incremental changes in reducing gender disparity.
- Linking targets to project objectives helps all stakeholders to understand the rationale for focusing on enhancing women's as well as men's access to and benefits from projects.
- Targets facilitate monitoring of participation and benefits by gender and other relevant social characteristics.

**4. Include gender capacity building in the gender plan.**

- Both formal training and ongoing support and mentoring of project implementation staff are needed for developing skills, ownership, and commitment.

**5. Provide adequate skills and resources for gender plan implementation.**

- Gender and/or social development specialists in the implementing agency and/or project team and adequate resources are essential to ensure that gender action plans can be effectively implemented.
- Non-governmental organizations contracted to implement project activities should have a demonstrated gender capacity.

**7. Monitor and follow up gender-responsive targets and activities.**

- Systematic follow-up is needed to ensure that gender plans are implemented. Routine monitoring and reporting promotes good results.
- Gender-responsive indicators and gender-related risks must be included in project results frameworks.

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*Source:* Adapted from Asian Development Bank Gender Network E-News. Examples of ADB ICT Projects with Gender Action Plans. T. Pulley and J. Acharya. <http://www.adb.org/documents/periodicals/gnn/gender-and-ICT.asp>

## 5. Bridging the Gender Digital Divide

A number of gender-targeted actions to facilitate inclusive, gender informed ICTs can be applied effectively to reduce the risk of increasing the gender digital divide and reinforcing other inequalities. These actions can maximize access and benefits for a wider range of people, with greater development impact.

Gender/Social Targeted Approach	Actions	Indicators
Promote policies that extend access to the rural and urban poor women and men	<ul style="list-style-type: none"> <li>▪ Identify policies and regulations that limit women or men from accessing ICT services and/or owning ICT businesses.</li> <li>▪ Promote universal services or universal access policies</li> </ul>	<ul style="list-style-type: none"> <li>▪ Universal service or access policies</li> </ul>
Build gender-responsiveness into the entire ICT project cycle	<ul style="list-style-type: none"> <li>▪ Include gender/social experts on design and implementation teams</li> <li>▪ Incorporate relevant gender/social questions in assessments, baselines and evaluations</li> </ul>	<ul style="list-style-type: none"> <li>▪ Presence of gender/social expertise on project teams</li> <li>▪ Gender-responsive assessment, monitoring and evaluation questions</li> </ul>
Promote gender-balanced procurement	<ul style="list-style-type: none"> <li>▪ Allocate “points” to women entrepreneurs offering to provide ICT/ products and services</li> <li>▪ Encourage large and microtelcos, telecenters and other providers to procure from and sub-contract to companies owned by women and other often excluded groups</li> </ul>	<ul style="list-style-type: none"> <li>▪ Percentage of procurements awarded to women entrepreneurs and woman-owned companies.</li> </ul>
<p>Promote equitable ownership of microtelcos, telecenters and other ICT service Centers</p> <p>Promote equitable control over ICT Services</p>	<ul style="list-style-type: none"> <li>▪ Allocate a proportion of the services senders for female ownership</li> <li>▪ Set a sliding scale for franchising and other project-related fees with low fees for women and other poor, entrepreneurs from often excluded groups.</li> <li>▪ Simplify the application process as much as possible</li> <li>▪ Work with local banks, microfinance institutions to arrange financing that can promote ownership by women and other often excluded groups.</li> <li>▪ Partner with other organizations (e.g. small and microenterprise (SME) programs) to develop skills women and other often excluded groups need to successfully manage telecenters, micro telecompanies, etc</li> </ul>	<ul style="list-style-type: none"> <li>▪ Number of ICT related business owners disaggregated by sex</li> <li>▪ Number of general managers disaggregated by sex</li> </ul>

<p>Reduce gender-based cost barriers to access to and use of telephony and telecenters/internet</p>	<ul style="list-style-type: none"> <li>▪ Reduce cost barriers for women who usually have less discretionary income than men (e.g. using sliding scales, discounts, “in-kind” payment, shared pre-paid phone cards)</li> <li>▪ Use technologies that enable low cost services; e.g. wireless local loop, mobile phone, links between community radio and internet, solar/battery/hand crank power for off-grid telecenters</li> </ul>	<p>Number of telephony, telecenter and internet users disaggregated by sex</p> <p>Availability of low cost services</p>
<p>Reduce socio-cultural barriers affecting access to and effective use of telephony, telecenters and Internet</p>	<ul style="list-style-type: none"> <li>▪ Place telecenters in venues already frequented by women, easily reached by public transportation</li> <li>▪ Provide separate rooms for women and men where needed</li> <li>▪ Provide mobile access to women who cannot travel outside the home</li> <li>▪ Communicate and market services through channels that reach women as well as men</li> <li>▪ Schedule telecenter hours convenient for women and girls as well as men and boys</li> <li>▪ Provide content of interest to both women and men in local languages</li> <li>▪ Avoid content with gender stereotyping</li> <li>▪ Partner with other organizations to provide key inputs to use ICT effectively (e.g. literacy programs, SME projects)</li> </ul>	<p>User reports of value of content and services disaggregated by sex</p> <p>Number of telephony, telecenter and internet users disaggregated by sex</p>
<p>Promote Equitable Access to and Value Gained from ICT Training</p>	<ul style="list-style-type: none"> <li>▪ Schedule training at hours convenient for women and girls as well as men and boys</li> <li>▪ Develop training to meet the needs of both women and men</li> <li>▪ Ensure that training content does not include gender stereotyping</li> <li>▪ Consider female-only training</li> <li>▪ Employ female as well as male trainers</li> <li>▪ Partner with other organizations to provide key inputs needed to achieve training goals (e.g. SME training services)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Number of ICT trainers and trainees disaggregated by sex</li> <li>▪ Trainee satisfaction disaggregated by sex</li> <li>▪ Changes in self-confidence disaggregated by sex</li> <li>▪ Trainee reports that training enabled goal achievement (disaggregated by sex)</li> </ul>



Track differential impacts of project on women and men	<ul style="list-style-type: none"> <li>▪ Disaggregate data by sex</li> <li>▪ Measure impact as well as level of use</li> <li>▪ Use gender-responsive data collection methods (e.g. using both female and male data collectors, conducting surveys in local language)</li> </ul>	Statistics disaggregated by sex available on ICT: services/products business ownership, use and impact
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Source: Adapted From: USAID 2005. Superior ICT Project Performance Through Gender Sensitivity: Last Mile Imitative Cheat Sheet. Prepared for ICT project teams by Janice Broadman.

## 6. Gender Evaluation Methodology (GEM) for ICTs<sup>6</sup>

The Association for Progressive Communications Women's Networking Support Programme (APC WNSP) developed the Gender Evaluation Methodology (GEM) to inform and facilitate the use of information and communication technologies (ICTs) to increase gender equality. GEM outlines suggested strategies and methodologies for incorporating a gender analysis throughout the evaluation process. It provides a means for determining whether ICTs are improving women's as well as men's lives and gender relations. GEM can also be used to ensure that gender and other related social concerns are integrated into the ICT project planning process. The complete GEM Tool is available on the Internet (see source below) including suggested strategies and methodologies for incorporating a gender analysis throughout the evaluation process. This tool highlights the phases of GEM analysis and action.

<b>Phase 1: Integrating Gender Analysis</b>	
	<b>Step 1: Define intended use:</b> e.g. set priorities, identify areas of improvement, identify problems, get feedback.
	<b>Step 2: Define intended users:</b> e.g. primary users committed to using the findings of the evaluation; stakeholders affected by the ICT project (community members, NGOs, government agencies, the implementing agency).
	<b>Step 3: Identify gender and ICT issues:</b> probe for gender issues within the context of the project and the wider context influencing the project (e.g. cultural, legal, policies). Examine the extent to which gender was considered in each phase of the project cycle.
	<b>Step 4: Finalize evaluation questions:</b> evaluation questions address the evaluation objectives. Experience has shown that participatory methods for formulating evaluation questions are generally more effective. Ensure that it is possible to gather information to answer the questions posed.
	<b>Step 5: Set Gender and ICT indicators</b> to track gender related changes (e.g. changes in the status and roles of women and men over time, empowerment of women and men).
<b>Phase 2: Gathering Information Using Gender and ICT Indicators</b>	
	<b>Step 5: Select data gathering methods:</b> e.g. survey, focus group, interview, analysis of records and documents. Take into account: <ul style="list-style-type: none"> <li>• Indicator to be measured</li> <li>• Data sources for that indicator</li> <li>• Methods of data collection for that indicator</li> <li>• Time - when and how often data will be collected</li> </ul>
	<b>Step 6: Analyze data from a Gender Perspective:</b> look for patterns, trends, contradictions in the data, assess data sources, comparing men's and women's ICT use, opportunities, challenges, priorities etc. Describe the patterns, interpret the implications of the findings, and provide recommendations for what should be done to respond to them.
<b>Phase 3: Putting Evaluation Results to Work</b>	
	<b>Step 7: Incorporate Learning:</b> e.g. review plans for using findings; explore changes the implementing organization can adopt; increase gender sensitive project and policy impacts; gender and ICT capacity building; conduct additional gender-sensitive research
	<b>Step 8: Develop a communication plan</b> to share evaluation lessons learned ( e.g. workshops, presentations, pamphlets, CDs, internet blog).

<sup>6</sup> Source: Adapted from Garcia Ramillo, C and C. Cinco. 2005, Gender Evaluation Methodology for Internet and ICTs (GEM) Association for Progressive Communication, Women's Networking Support Program. [http://www.apcwomen.org/gemkit/en/understanding\\_gem/index.htm](http://www.apcwomen.org/gemkit/en/understanding_gem/index.htm)

## 7. ICT Results Indicators: Gender-Responsive Examples

Gender-responsive monitoring and evaluation is essential to ensure that gender issues addressed in the project design are implemented, progress monitored and the impacts assessed. Indicators are linked to development objectives; and measure the outcome of the projects. Gender indicators track gender-related changes. The World Bank, especially the Sustainable Development Network (SDN), has established core indicators for monitoring progress. For IDA, the projects also need to report on the number of direct male and female beneficiaries. The following list provides examples of gender-responsive indicators for a number of common ICT project outcomes. **Not all are the ICT core indicators**; some are suggested additional indicators that task teams can include in their Results Framework for monitoring gender outcomes. The list is not exhaustive. An ICT project with gender issues can only apply those indicators relevant to the gender actions taken and project development objective.

The following are ICT core indicators that can be divided and monitored by male and female

**User perception of quality of public services (%)**: [Degree of male and female users' perception of quality of public services (%).]

**IT/ITES Employment (number of people)**: [Number of men and women employed in the IT/ITES industry]

**Number of manpower trained under the project (number of people)**: [Number of men and women trained for the IT/ITES industry under the project.]

**Access to telephone services (fixed mainlines plus cellular phones per 100 people)**: [Number of men and women with fixed telephone lines and mobile cellular phone subscriptions per 100 people in a given country.]

**Access to internet services (number of subscribers per 100 people)**: [Number of men and women internet subscribers per 100 people in a given country.]

### Other suggested additional indicators

#### ICT Access and Use

Where possible, disaggregated by age, rural/urban and other relevant social characteristics

##### *Modern ICT*

- Male and female hours per month of Internet use
- Males' and females' minutes per month of cellular phone use/number of SMS text messages
- Number and percentage of women and men who own cellular phones
- Number of girls and boys with computer and Internet access in schools
- Number of hours girls and boys use computer and access Internet in schools

##### *Traditional ICT*

- Number and percentage of males and females with radio access
- Male and female hours per month listening to radio
- Number and percentage of males and females with television access
- Male and female hours per month of television viewing

### **ICT Content**

- Proportion (%) of subject matter relevant to women and men
- Proportion (%) of content in local language(s)
- Number of Websites related to women's health, maternal health, education, on-line courses, legal rights, family law, gender-based violence remediation, access to local NGOs and related information in local languages.

### **Employment (mostly from private sector companies)**

- Male/female ratio of managers in ICT-related businesses
- Male/female ratio of technical experts in ICT-related businesses
- Male/female ratio of decision-makers in ICT regulatory agencies
- Male/female ratio of non-technical positions in ICT-related businesses
- Male/female retention rates
- Male/female salary ranges

### **ICT Entrepreneurship**

- Number and percentage of female-owned and male-owned ICTs or ICT enabled businesses
- Percentage of women and men purchasing, renting or gaining public access to ICTs
- Number and amount of loans made to women entrepreneurs, to men entrepreneurs

### **Education**

- Number of male and female receiving ICT technical training
- Number of female civil servants with access to Internet
- Number of female civil servants with her own email address

### **Health Care Quality, Access and Cost**

- Percentage of women/men using telemedicine facilities

### **Participation in ICT Projects**

- Number of local males and females participating in project activities (workshops, training)
- Number of local males and females participating in project decisions
- Positive and negative impacts of project on local women and men
- Number of males and females on project staff

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*Sources:* Huyer, Sophia and Nancy Hafkin. 2007. Engendering the Knowledge Society: Measuring Women's Participation. Orbicom; Garcia Ramilo, Chat and Cheekay Cinco. 2005. Gender Evaluation Methodology for Internet and ICTs; Melhm, Samia, Claudia Morrell and Nidhi Tandon. 2009. Information and Communication Technologies for Women's Socioeconomic Empowerment. World Bank Working Paper 176.

## PART II

# Integrating Gender and Other Social Dimensions in Applications of ICT

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Information and Communication Technologies (ICTs) are transforming the way in which social, economic, and political processes operate, with a great potential to reduce gender and other digital divides. Because ICTs play key roles in development operations in other sectors, this sections focuses on such applications in education, small and medium business development, and telecenters. Other applications will be added when this tool is updated.

## 8. Bridging the Gender Digital Divide through Telecenters and E-Centers

There are a number of definitions of a telecenter or E-center. The common element is that ICT-based services are provided to community members, though the range of ICT-based services and community participation may differ. Participatory telecenters are viewed by many as potential vehicles for bridging the digital divide for poor women and other marginalized groups. Some of the potential benefits include access to telephones, internet and other information as well as training, literacy programs, employment opportunities, business applications, health, farming and trading information. However a number of obstacles remain that constrain the use of telecenters, particularly for women. The chart below summarizes common obstacles and actions to overcome them. This is followed by key questions to ask about participation in telecenters and two brief good practice examples of gender-responsive telecenters and E-centers.

### Addressing Obstacles to Telecenter/E-Center Use

Obstacles	Actions
<b>Social and Cultural:</b> language, low literacy and education, bias against women and girls' use of technology; time constraints of females due to domestic chores	Assess and address constraints for different groups. Use flexible, creative approaches to include women and other ICT marginalized groups. Provide information and training in local languages at times convenient for women as well as men. Hire female Center staff and trainers.
<b>Economic:</b> lack of ability or willingness to pay; challenge of sustaining the telecenter services	Assess what services women and men can afford and who might be excluded by fees for services; utilize low cost ICTs and volunteers; participation by local businesses.
<b>Physical :</b> distance to telecenter; need for electricity for internet and telephony	Locate the telecenter in a meeting place that is accessible to women as well as men. It may be necessary to create separate spaces; youth may need separate space in some contexts.
<b>Political:</b> opposing groups in a community can disrupt center functions	Avoid associating the center with any political or religious group or faction.
<b>Public Awareness:</b> lack of interest in ICTs or knowledge of their uses	Conduct public outreach. Ensure the services and content fill local needs. Provide ICT training. Work with intermediary organizations such as women's self-help groups to facilitate access and motivate use.

Sources: Jorge, Sonia. 2000. Gender Perspectives on Telecenters. R.S. Colle and R Roman. 2002. Creating a Participatory Telecenter Enterprise. Paper Prepared for the Participatory Communication Section of the Annual Meeting of the International Association for Media and Communication Research. Barcelona.

### Key Questions About Participation in Telecenters

Telecenters could provide links in a gender-responsive, intercultural *digital bridge* if they adopted a participatory approach that systematically encourages inclusive community involvement in the design of solutions to development problems through the use of information technology.

1. **Why is telecenter participation important to this project?** e.g. because it conveys a sense of community ownership; it provides indigenous wisdom; it helps reflect community values and helps identify information needs; it provides important resources, such as volunteers or as technical experts.
2. **Who should participate?** What groups of people should receive specific attention because they might be marginalized — women, girls, poor people, minorities, the elderly.
3. **How might people participate?** use of the ICT facilities, volunteers who oversee daily operations, tutors who give lessons, advisory groups for different aspects of the operations, people who provide links to other community organizations, and people who develop content or manage particular data bases and add value to information resources.
4. **How much participation?** Agreement needs to be reached between the users on what is optimal participation.
5. **When should participation take place?** Start with the *planning* stage.
6. **What incentives can be offered to those who volunteer to participate?** Benefits from the information services, public recognition, special privileges regarding use of telecenter facilities or, for telecenter volunteers, discounts from shops in the community (which is a way that merchants can participate).

**Source:** Adapted from: R.D. Colle and R. Roman 2002 creating a Participatory Telecenter Enterprise. Paper prepared for the Participatory Communication Research Section in the annual meeting of International Association for Media and Communication Research, Barcelona, July 21-26, 2002.

### Gender-Responsive E-Centers and Telecenters: Good Practice Cases Community E-Centers in Malaysia

The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) and Malaysia's Institute Tadbiran Awam Negara (INTAN) have compiled an online how-to guidebook on setting up and running a community E-center, based on the lessons learned from three e-center projects in Malaysia. Community e-centers (CeCs) are public-access facilities that provide electronic communication and multimedia services. The long-term goal is to reduce poverty through increased digital literacy and greater access to and use of ICTs. CeCs enable communities to access new knowledge and information on employment opportunities, educational resources, government services (for example, providing links to e-government), and technical information on agriculture for their daily lives, such as information on new varieties of crops, planting techniques, and disease prevention. The CeCs can also serve as training centers to develop local computer and ICT skills and provide access to distance education (e-learning), human resource development and business development. The CeCs can also allow entrepreneurs to plan and prepare their business arrangements and communicate with partners and potential clients through e-commerce. Students and educators can register with educational institutions at any location in the world through the Internet and access archival materials, or receive online instruction. CeCs can also provide distance education to students through educational software packages that are periodically upgraded. Health care workers, can access tele-diagnostics programs, order supplies, convey public health information, and obtain specialist advice for complex health problems. Thus CeCs can serve as communication highways that benefit different groups in communities. The online guidebook for CeCs includes a list of gender equity-oriented questions for use in the planning, monitoring and evaluation. The handbook challenges communities to assess the needs and constraints of different groups in order to address them and to identify which groups can be empowered by the CeC, to outline how gender equity can be achieved (e.g. through hiring and hours of operation), and to assess which types of technologies are most appropriate.

Source. Adapted from Nidhi Tandon, 2007. Innovation Activity Profile: Malaysia Community e-Centers. Gender and Agriculture Sourcebook: World Bank. FAO, and IFAD. pp.411-413.

### Gender-Responsive E-Centers and Telecenters: Good Practice Cases E-Lanka in Sri Lanka

The e-Lanka Development Project in Sri Lanka uses e-government applications in education services that are tailored to promote women's skills training. Telecenters around the country provide access to ICT services, including Internet, e-mail, and computer classes for poor, rural communities that would not have access otherwise. The centers are run by rural businesswomen and men. The majority of the owner-operators are women. A voucher system gives women and rural youth initial free access to rural telecenters. This is phased out once they understand the potential uses of ICT and the value of the facilities and services. Then they pay a few cents per hour to make the centers financially sustainable.

Source: Nidhi Tandon. 2008. Thematic Note 3: Information Communication Technologies. Gender and Agriculture Sourcebook. World Bank, FAO and IFAD. pp. 390-398.

### Factors Associated with Success of Community E-Centers

- **Focus on people, organization, contents, and processes rather than technology** For CeCs to work, a proper organizational structure and a focus on people are essential. Technology is generally the easiest component to implement.
- **Relevant to local needs.** The CeC's sustainability is tied to their capacity to meet the actual needs of different groups in the community. Applications and services of CeCs should be demand-driven.
- **Community participation.** The members of the target community of the CeCs must participate in the whole process of setting up the CeCs. They know the needs of the community and they will be managing the CeCs in the long run because NGOs, government bodies, and sponsors will assist only one or two years.
- **Local champions.** In the Malaysian context local champions of the case studies are a key component in the success of the CeC. They act as catalysts and motivators to the project and persevere through setbacks.
- **Partnerships** among various stakeholders are required throughout the process of the development of a CeC. Stakeholders often include governmental bodies (which provide approvals, funds, and advice to NGOs), NGOs (which provide human resources and training to private companies and the community), private companies (which may assist in the forms of sponsorship), and the local women and men who will be affected by the project.
- **Training programs** are essential to build the capacity of local women and men to use and run the CeCs effectively and efficiently. Skills, such as management skills, computer literacy, and maintenance skills, are essential to the continued operation of the CeCs.
- **Business plan.** CeCs that intend to be financially independent need a business plan. The business plan provides a description of the organization, the objectives of the CeC, how the objectives are to be achieved, the market for the business, financial forecasts, and earnings targets

Source. Adapted from Nidhi Tandon, 2008. Innovation Activity Profile: Malaysia Community e-Centers. Gender and Agriculture Sourcebook. : World Bank. FAO, and IFAD. pp. 411-413.



## 9. Gender-Responsive ICT Development for Small and Microenterprises

Women entrepreneurs are becoming driving forces in many economies, particularly in Africa. Supporting women entrepreneurs to introduce ICTs into their enterprises enhances the potential to increase productivity, create employment, reduce poverty, and increase local development. This requires a good understanding of women's and men's entrepreneurship approaches and resources already tapped. It also requires capacity building and policies supportive of women's equal participation. Monitoring and evaluation are also important.

### Gathering information on gender differences in entrepreneurship practices

The first stage involves building a depository of information on differences in the ways men and women would run their enterprises. Steps in this stage include:

- Gathering information on the role of women and men in financial management and in local business practices and decision-making with regard to economic earnings, responsibilities and ambitions
- Determining the existing systems of financial and business management that women already access, the kinds of business associations and service centers that women already tap, and women's needs that are not currently being met
- Involving businesswomen and their representative organizations in discussing the role that ICTs can play and learn more about their needs and objectives

### Setting objectives

This stage involves processing the information gathered and setting collective objectives based on the outlined goals. When setting objectives, consider the following:

- Identify those women-run enterprises that are viable businesses and not just income-for-survival initiatives
- Design and conduct training outreach workshops that provide an applied training environment to enable businesswomen to understand the three dimensions of ICTs in business
- Work with regulatory bodies to determine what policies need to be implemented to ensure that women and men have equal access to ICTs
- Identify the range of support services that would prove helpful to women to ensure that they participate in literacy, skills training and decision-making. Determine the feasibility of the World Bank or other organizations supporting some of these client-specific services
- Determine strategies to ensure that women's perspectives and inputs are incorporated into the decision-making processes in initiatives taken by the World Bank and other organizations

### Implementation

The implementation stage brings together the predetermined objectives and strategy. Outreach and access are two important features. There is need to ensure that businesswomen are encouraged to become not only end-users of ICTs but also designers of applications. A community-based approach to reach out to businesswomen and their networks can provide the best means for including women from the start. Telecenters are a good example of such an approach.

## Evaluation

The following key data, qualitative and quantitative, should be collected and considered in this phase:

- On a monthly basis how many women and men participants come to training events, how many drop out and why, and how many return to future training events?
- What are the main market research sites that women and men entrepreneurs frequent?
- What software, software training, and support services do women and men entrepreneurs in the region prefer, and what is the upward trend in use of services?
- How have the women and men responded to the financial and support services offered, and how have they benefited personally, in the context of their family, and with respect to larger society?
- Which groups of women and men have or have not been reached with services?

## Maintaining fluidity and flexibility in program design

A feedback mechanism can translate the lessons learned from the previous stage into management decisions. Staff and clients should collaborate to determine if and how the program design should be changed to improve results.

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*Source:* Adapted from World Bank 2005. Engendering ICT Toolkit; ILO.2005, Skills and Entrepreneurship: Bridging the Technology and Gender Divide.

## 10. Using ICT for Education and Teacher Professional Development

ICTs can be powerful tools for the education of students as well as the professional development of teachers. Choosing among these technologies requires attention to learners' needs and capacities as well as infrastructure requirements, development and operational costs. The chart below summarizes key applications, strengths and weaknesses of radio, television, computers and the internet, and online distance learning.

Type of ICT	Role in Education and Teacher Development	Strengths	Limitations
<b>Radio</b>	<ul style="list-style-type: none"> <li>--Addresses shortages in trained teachers</li> <li>--Basic skills instruction (math, health, languages)</li> <li>--Teacher development through demonstration of classroom management; builds subject matter knowledge</li> </ul>	<ul style="list-style-type: none"> <li>--Can improve basic skills</li> <li>--Can be implemented with or without textbooks and other resources</li> <li>--Potential to reach large student population</li> <li>--Illiteracy is not a barrier</li> <li>--Can address equity and access issues (gender, rural ethnic)</li> <li>--Can combine hands-on development of teacher skills with student learning</li> <li>--Radio production skills are widespread</li> <li>--Moderate infrastructure requirements</li> <li>--Low technical support requirements</li> <li>--Survives extreme environments and long-term use with minimal care</li> <li>--Per student recurrent costs are very low</li> </ul>	<ul style="list-style-type: none"> <li>--Content requires updating</li> <li>--Broadcast airwaves are subject to political and economic events</li> <li>--Limited interactivity; tendency to reinforce rote learning</li> <li>--Limited attention to needs of individual learners</li> <li>--Fixed broadcast schedule</li> <li>--Linear one size fits all approach</li> <li>--Requires hardware replacement program ( radios and batteries may be stolen)</li> <li>--High to moderate content development costs</li> </ul>
<b>Television</b>	<ul style="list-style-type: none"> <li>--Addresses shortages in trained teachers</li> <li>--Delivers content to students in all subjects</li> <li>--Provides views of real classroom practices and learning activities</li> <li>--Provides learning resources for teachers (showing distant places, graphic presentation of concepts)</li> </ul>	<ul style="list-style-type: none"> <li>--Powerful and familiar ( images, audio)</li> <li>--Can “bring” viewers to sites of events</li> <li>--Helps teachers to observe and more effectively implement new teaching practices</li> <li>--Potential to reach large populations of students and teachers</li> <li>--Can address equity and access issues where elective power is available</li> </ul>	<ul style="list-style-type: none"> <li>--Does not guide teacher through scripted, hands-on activities</li> <li>--High development costs which may limit testing and revision before launching.</li> <li>--Costs of updating are high</li> <li>--Broadcasts are subject to political and economic events</li> <li>--Production requires sophisticated skills and facilities</li> <li>--Fixed broadcast schedule—can be augmented by taping</li> <li>--Requires access to electricity</li> <li>--Hardware costs (television, satellite dish, cabling and power generation) may be too high for poor communities.</li> <li>--High production costs</li> <li>--Commercial broadcast rates are very high</li> </ul>

<p><b>Computers/ Internet</b></p>	<ul style="list-style-type: none"> <li>--Provides access to guided teacher development resources and communities of practice</li> <li>--Enables acquisition of basic computer skills</li> <li>--Provides tools that promote higher order thinking ( e.g. spreadsheets, databases)</li> </ul>	<ul style="list-style-type: none"> <li>--Flexible and powerful; can be used to develop materials, access resources and communicate</li> <li>-- Combines text, audio, video, animation and interactivity</li> <li>--Supports dissemination of information and feedback from schools</li> <li>--Can enable learner-centered and active learning methods</li> <li>--Enables communication with experts</li> <li>--Computer assisted instruction, simulations and other tools can improve subject mastery</li> <li>--Provides support for collaboration between teachers, among students</li> <li>--Supports assessment and record keeping</li> </ul>	<ul style="list-style-type: none"> <li>--Complex tools require time and teacher development to be effective</li> <li>--Hardware, software and operating systems are fragile— subject to damage by users, viruses, fluctuating electrical power</li> <li>--Highly dependent on infrastructure – electricity, telecommunications, roads (for repairs).</li> <li>--Requires maintenance and management</li> <li>--Requires support from leadership and system-wide commitment to new modes of teaching and learning to have a significant impact.</li> <li>--Significant installation, maintenance and repair costs</li> </ul>
<p><b>Online distance learning</b></p>	<ul style="list-style-type: none"> <li>--Provides structures and unstructured teacher development</li> <li>--Provides teachers access to learning resources for use with students</li> <li>--Peer mentoring and teacher communities support teacher development</li> <li>--Accredited Teacher development courses help teachers upgrade qualifications</li> </ul>	<ul style="list-style-type: none"> <li>--Can be used anytime, anyplace wherever connection is available</li> <li>--Teachers can interact with expert teachers and others</li> <li>--Written communication (email discussion) can be prompt and more reflective</li> <li>--Supports a range of learning styles</li> <li>--Potential to reach large numbers of teachers</li> </ul>	<ul style="list-style-type: none"> <li>--Dependent on regular access to computers and the internet</li> <li>--Teachers must have computer, language, literacy, and teaching skills to participate effectively</li> <li>--Many self-paced online courses lack high quality or interactive content.</li> <li>--Internet content may be overwhelming-- too much information; too many choices</li> <li>--Multimedia and interactive courses require high bandwidth and powerful hardware.</li> <li>--Effect of online teacher training on classroom performance is unclear</li> <li>--High costs when courses have a fee</li> <li>--Moderate content development costs</li> <li>--Moderate operating costs for facilitated courses, portals, communities</li> </ul>

*Source:* Adapted from InfoDEV and World Bank. 2005. Using Technology to Train Teachers : Appropriate Uses of ICT for Teacher Professional Development in Developing Countries. <http://www.infodev.org/en/publication.13.html>

## **PART III**

### **Resources**

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The final section includes good practices cases, internet networks on gender and ICT, and suggested reading as additional resources for addressing gender and other social dimensions in ICT policies, strategies, projects and other development instruments.

## 11. Good Practice Cases

### E-Ghana (FY2007 to FY2012)

#### **Project Development Objectives**

E-Ghana is a World Bank funded project aimed at generating growth and employment in Ghana by leveraging information and communication technologies (ICT) and public-private partnerships to develop the information technology enabled services (ITES) industry and to contribute to the improved efficiency and transparency of selected government functions through e-government applications. Its focus is on providing training and ICT jobs for women at all levels.

**Commitment:** \$39.6 million, World Bank; \$2.1 million, Government of Ghana (GoG); \$41.7 million total

#### **Expected Results**

- The project is expected to increase ICT-based jobs from 2,000 (in 2006) to potentially 40,000 over five years with equal opportunities for women
- Expected increase in export-led revenues generated by ICT/ITES industry potentially US\$200 million during this period
- High percent of the new jobs created by the project expected to be held by women

#### **Approaches that Work**

##### ***Business Analysis***

The feasibility analysis for expanding CT and ITES in Ghana indicated that women were already predominant in the sector. Women held higher proportions of accounting degrees and had proven to be more effective workers in the sector. The business process outsourcing/offshoring (BPO)/ITES sector is an attractive employment opportunity for women since it has flexible working hours, short and affordable training programs, and room for growth. For every one job created directly in the ITES industry, it is anticipated that four jobs will be created indirectly in other industries such as recruitment agencies, training firms, transportation, catering, office support, real estate maintenance, security, and general office supply firms. All of these industries already employ women and, with incentives, could be an important source of female employment.

##### ***Recruitment of women from existing labor market and training institutions***

Women with requisite skills for the ITES industry are being recruited from the current ITES market place as well as universities, vocational training centers, and secondary training institutes.

##### ***Matching grants for training***

In order to develop the necessary employment pool to fill these jobs, a matching grants program has been established to encourage public and private institutions to run training programs in key segments of the BPO/ITES sector, with special emphasis on the participation of women, particularly in management positions.

##### ***Management training for women***

The project will also contribute towards ensuring an increase in the number of women holding managerial jobs.

***Active Engagement of project team and ITES Companies***

Active encouragement of gender equality on the project implementation team and the ITES companies has been important for raising gender awareness.

***Gender-responsive monitoring and evaluation***

One of the monitoring targets of the project is that women will hold fifty percent of the new jobs that will be created. This is an achievable goal given that women hold seventy percent of the jobs in BPO, and many of the skills that are in use in these jobs can be translated to other jobs in ITES, which is anticipated to grow significantly as a result of this project. The proportion of managerial to non-managerial positions held by women will be tracked along with other project indicators, and will be an important outcome to monitor.

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**Sources:** Ampah, Mavis. "Providing Business Opportunities for Women in the ITES and BPO Industry: The Case of E-Ghana." Presentation at SDN Week. World Bank, February 2008. World Bank. Project Appraisal Document for an E-Ghana Project. 2006.

# 12. Replication of the Village Phone Program

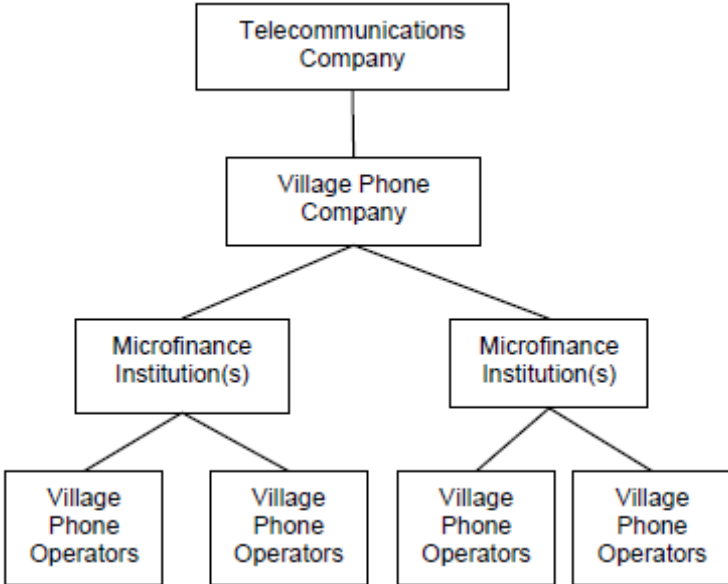
The International Finance Corporation Private Enterprise Partnership in Africa is supporting the replication of the Grameen Bank Village Phone model in Africa. The program is connecting communities, creating opportunities and improving lives, particularly for women. Village Phone extends the reach of mobile phone service into rural communities by partnering local micro-entrepreneurs with major mobile carriers.

## Background: The Grameen Village Phone Model

Grameen Bank, a highly successful micro-lending bank in Bangladesh, began a program to provide cellular phone service to rural villages in March 1997. Grameen Bank’s primary line of business is to make microloans to women entrepreneurs in villages and provide credit to buy cell phones from Grameen Telecom. The women then provide mobile pay phone service in their shops or the local market, charging a markup agreed upon with Grameen Telecom.

## Stakeholders

Village entrepreneurs (usually women) use micro loans to purchase a Village Phone starter kit from the local telecommunications provider. They then use that phone as a pay-per-call phone for other members of the community. The Village Phone Company provides the framework and linkages. The microfinance institutions provide financing, operator training and equipment support. The responsibilities of the telecommunications providers include the infrastructure, government licensing and regulation compliance and telephone customer support. The village operators are responsible for marketing their new business, billing and collecting fees, providing communications knowledge and resources to the community, and maintaining the equipment.





## Sustainability

This is not a subsidized program and all stakeholders gain from their involvement. The Village Phone operators contribute to their loan repayment and purchase additional prepaid airtime cards with proceeds from the business; the microfinance institution earns money from the loan and a percentage of the revenue from airtime sales; the telecommunications provider earns money through volume sales of airtime; and the Village Phone Company earns enough money to continue to promote and expand the program. It works because it is designed so that all parties in the partnership “win.”

## Results

The first Village Phone program began in Bangladesh with great success. At the end of 2004, there were 87,500 village phone businesses established throughout the country.

## Community Benefits

The “village phone ladies” who have invested in the phone technology have for the most part made successful enterprises out of their phone businesses. Their incomes are above the national average and they are able to support their families and gain respect in the community. Some farmers are now able to telephone the market to find the going market price for the produce, thus avoiding being short-changed by middlemen and increasing their income. Villagers can now call for medical services or advice in the case of an emergency. The villages are less isolated than before they had phone service.

## Replication and Scaling Up

In October of 2005, the IFC collaborated with Grameen Foundation and other organizations to develop the *Village Phone Replication Manual*, to facilitate the implementation of the Village Phone model in other countries. Uganda was identified as a viable market for replication because of its low phone coverage, satisfactory regulatory environment, willing partners in the country, and telecommunications coverage in target areas. Pilot programs are underway in Rwanda and Nigeria under the IFC Village Phone Program through the Private Enterprise Partnership Africa. The program links IFC’s major telecoms clients with rural entrepreneurs who sell airtime on the companies’ networks in their local rural communities. Consumers in rural markets gain access to telephone services; local entrepreneurs, who are known as Village Phone Operators, have an income-generating business; telecom partners deepen their market penetration and meet their mandates to expand access into rural areas. IFC is also helping the Village Phone business evolve to more value-added services by combining it with various applications including m-commerce, health and education, e-government, etc.

Project Partner	Business Model
Telecommunications Company	<p>Airtime sales yield profits on prior infrastructure investments</p> <p>The Telecommunications Company wishes to reach a greater customer base in poor rural areas and recognizes that they can do so profitably using a shared access model and utilizing the channel to market and financing infrastructure of microfinance networks.</p>
The Microfinance Institution	<p>Distribution channel to market. The microfinance partner is a distribution channel and receives ongoing revenue from a share of airtime sales.</p> <p>Additionally, the microfinance institution reaps the benefit of the financing agreement with the Village Phone Operator in terms of interest income. The program can also be used to attract new customers and reward long-standing clients.</p>
Village Phone Company	<p>Revenue for this partner is derived from airtime sales and a revenue sharing model with the other partners. Its goal is to be sustainable and expand the rural reach of telecommunications services</p>
Village Phone Operator	<p>Sells phone airtime for calls to people in their community. Also generates revenue from non-airtime sources such as message delivery, solar charger utilization, etc.</p> <p>The micro-entrepreneurs' other business activities benefit from the Village Phone business. For example, when someone comes to their store to buy a soda, they may make a phone call, or if they come to make a call, they may buy a soda while waiting. Innovative entrepreneurs have created additional adjunct businesses to maximize this 'internal synergy'. One Bangladeshi created a tea house alongside their phone station, and then took it one step further and created a "resting place" (for people to use when waiting for incoming calls) which then evolved into a small hotel. This 'system' of Village Phone Operator activities forms a sustainable livelihood.</p>

**Sources :** Lawson, Cena and Natalie Meyenn. March 2000, "Bringing Cellular Phone Service to Rural Areas: Grameen Telecom and Village Pay Phones in Bangladesh" in Public Policy for the Private Sector. Grameen Foundation USA, 2005. Village Phone Replication Manual IFC 2008. The Village Phone Program.

## 13. Website Resources

### Global Web Sites

**Association for Progressive Communications Women's Networking Support Program (APC WNSP)** is one of the first international initiatives focused on the importance of ICTs for women and girls. A global, internet based network. Develops training, participatory research, policy and advocacy in the area of gender and ICT, information facilitation and regional program support. Developed the Gender Evaluation Methodology (GEM) and provides training and support on its use <http://www.apcwomen.org>

**Bellanet International Secretariat** is a multi-donor initiative (IDRC, Danida, Sida and the Swiss Agency for Development and Cooperation) created to promote and facilitate effective collaboration within the international development community, especially through the use of ICTs <http://www.bellanet.org>

**CGAP** publications explore microfinance and ICT <http://www.cgap.org/p/site/c/>

**Center for Women and Information Technology** at the University of Maryland is dedicated to providing global leadership in achieving women's full participation in all aspects of IT <http://www.umbc.edu/cwit/>

**Cisco Learning Institute Gender Initiative** The Gender Equal Access in Technology Project is designed to increase awareness, increase recruitment, and improve retention of girls in Cisco Networking Academy Program – an internet program for building internet skills <http://www.ciscolearning.org/>

**ELDIS ICT** The ICT and Gender page consists of a comprehensive list of recent resources with links to text <http://www.eldis.org/go/topics/resource-guides/ict-for-development/ict-and-gender>

**Digital Dividend** at World Resources Institute identifies and promotes sustainable solutions for bridging the digital divide. The site offers tools, information services to companies, entrepreneurs and NGOs as well as information on free computers, software and web development assistance <http://www.digitaldividend.org>

**Digital Partners Initiative** based in Seattle and links ICT entrepreneurs with social entrepreneurs located in the US Pacific Northwest <http://www.digitalpartnersvc.com/>

**Food and Agriculture Organization (FAO)** Dimitra uses ICT and traditional media to collect information on ICT and rural women's contributions to development <http://www.fao.org/sd/dimitra>

**Gender, Diversities and Technologies Institute** Education Development Center aims to establish a global network committed to understanding gender within an educational context and collaborate on the design and use of technology [www.edc.org/GDI](http://www.edc.org/GDI)

**GenderIT.org** is an extensive database of articles, links to organizations and events related to ICT and Gender, online forum, ICT glossary, and section for policy makers [www.genderIT.org](http://www.genderIT.org)

**Global Alliance for ICT and Development** responds to the need and demand for an inclusive global forum and platform for cross-sectoral policy dialogue on the use of ICT for enhancing the achievement of internationally agreed upon development goals, notably reduction of poverty <http://www.un-gaid.org/>

**Global Knowledge Partnership** With over 100 members, the GKP Network connects private and public sectors, international institutions and civil society groups to share their experience, ideas and solutions to unleash the potential of knowledge and ICT to improve lives, reduce poverty and empower people. Convened the GK3 global event, December 2007 <http://www.gkpeventsonthefuture.org/>

**ICT for Development page on the Development Gateway** hosts thousands of resources on ICTs for development including gender and ICTs in a development context <http://topics.developmentgateway.org/ict/>

**The Grameen Technology Center** leverages the power of microfinance and technology to create innovative, sustainable solutions that will enable MFIs to empower their clients to escape poverty more rapidly [http://www.grameenfoundation.org/what\\_we\\_do/tec...](http://www.grameenfoundation.org/what_we_do/tec...)

**InfoDev** is a global grant program managed by the World Bank to promote innovative projects on the use of ICTs for economic and social development, with a special emphasis on the needs of the poor in developing countries <http://www.infodev.org> Some of the ICT toolkits available on the site include:

**Incubator Toolkit** <http://www.idisc.net/en/Topic.1.html>

**M-banking for the poor** <http://www.infodev.org/en/Project.35.html>

**ICT Regulation Toolkit** <http://icttoolkit.infodev.org/en/index.html>

**ICT in Education Toolkit** <http://www.ictinedtoolkit.org/usere/login.php>

**International Telecommunications Union (ITU)** is the leading United Nations Agency for ICT, global focal point for governments and the private sector on: radio-communication, standardization and development. Includes a gender and ICT taskforce <http://www.itu.int/net/home/index.aspx>

**Networked Intelligence for Development** works with communities in developing and transition countries, predominantly with women, assisting them in accessing and using ICTs to enhance their livelihoods. [www.networkedintelligence.com](http://www.networkedintelligence.com)

**Pro-ICT** is an online database aimed at promoting more gender-equal access to ICTs. It offers self assessment tools, educational materials, workshops, handbooks, case studies as resources for educators, parents, counselors <http://www.pro-ict.net/>

**United Nations Development Fund for Women (UNIFEM)** global gender and ICTs programming is supporting E-quality in national and global ICT governance and policy in institutions that regulate and govern ICT development and in ICT projects and programs <http://www.unifem.org>

**UN Economic and Social Commission for East Asia and the Pacific (UNESCAP)** Closing the gender divide is a UNESCAP priority enabled through gender-responsive ICT capacity development for women's organizations, policy recommendations, research publications and mobilization of civil society and governmental organizations <http://www.unescap.org/esid/gad/issues/ict/index.asp>

**UN Economic and Social Commission for Western Asia (UNESCWA)** promotes social and economic development, use of gender-sensitive ICT policy, and hosts the ECSWA Center for Arab Women <http://www.escwa.org.lb/>

**Women in Global Science and Technology** has web links to other organizations, list servers and e-resources on international gender, science and technology issues <http://www.wigsat.org/>

**Women Science and Technology Network UNESCO** Chairs and helps universities serve the development of their countries by contributing to the increase in the number of women scientists and engineers and the transfer of scientific and technological knowledge to poorer populations. <http://portal.unesco.org/science/en/ev.php->

**World Association of Community Radio Broadcasters** serves the community radio movement. The Women's International Network seeks to ensure women's right to communicate through and within the community radio movement. It is particularly active in francophone Africa. <http://www.amarc.org>

**World Bank Engendering ICT Toolkit.** Checklists for integrating gender into ICT projects, policies and applications. <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTGENDER/EXTICTTOOLKIT/0,,menuPK:542826~pagePK:64168427~piPK:64168435~theSitePK:542820,00.html>

**The World Federation of Engineering Organizations** assists development of the engineering profession, exchange and transfer of technology from one country to another, the quality of engineering education and training, and the ethics and standards of engineering practice. Has a working group on gender issues. [www.wfeo.org](http://www.wfeo.org)

**World Summit on the Information Society Gender Caucus** consists of representatives of organizations that responded to an invitation by UNIFEM to contribute to ensuring that gender dimensions are included in the process of defining and creating a Global Information Society that contributes to sustainable development and human security. <http://www.itu.int/ITU-D/gender/GenderWSIS/index.html>

## Regional Web Sites

### AFRICA

**Abantu for Development** offers a practical workshop on strengthening electronic communications capacities for women's organizations in Africa for managers, project officers and information officers. Includes computer skills, strategies for using ICT for networking and advocacy. [www.abantu.org](http://www.abantu.org)

**African Education Knowledge Warehouse** services African SchoolNet practitioners, policymakers and school-based communities on ICTs in education across Africa. Includes a GenderWatch web site <http://www.schoolnet africa.org/english/index.htm>

**Research ICT Africa** seeks to fulfill a strategic gap in the development of a sustainable information society and knowledge economy by building information communication technology ICT policy and regulatory research capacity in Africa needed to inform effective governance <http://www.researchictafrica.net/>

**NGO-NET Africa** offers Internet facilitates and Internet and development training, including how to involve local communities and organizations in the use of ICTs. [www.ngo-net.org](http://www.ngo-net.org).

### ASIA AND THE MIDDLE EAST

**Self-Employed Women's Association (SEWA)** a trade organization for poor, self-employed women workers which uses ICTs as a tool for empowering grass roots members. Programs develop women's skills in radio, television, use of mobile phones, and computers. [www.sewa.org](http://www.sewa.org)

**Swaminathan Research Foundation** promotes a pro-poor, pro-environment, pro-women approach to job-led economic growth through ICT. [www.mssrf.org](http://www.mssrf.org)

## **LATIN AMERICA AND THE CARIBBEAN**

**Caribbean Association of Feminist Research and Action (CAFRA)** is a regional network of researchers and women's organizations and facilitator of the regional women's movement. [www.cafra.org](http://www.cafra.org)

## **EUROPE AND CENTRAL ASIA**

**Women's Information Technology Transfer (WITT)** aims to strengthen ICT awareness and skills among women and women's organizations; and strengthen civil society's and women's organizations' use of ICTs to promote gender equality. [www.witt-project.net](http://www.witt-project.net).

## 14. Suggested Reading

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World Bank 2005a. Engendering Rural Information Systems in Indonesia. Washington, DC.

2005b. Engendering ICT Toolkit.