Empowering Women in Developing Countries

ICT Applications and Benefits

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Chapter 9

Harnessing the Power of New ICTs for Rural Women in India: NGO Roles

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ABSTRACT

Information and Communications Technology (ICT), important for everyone, holds special potential for rural women. Rural women often have less education, less access to information in their daily lives, and greater isolation in domestic settings. In some communities, women and girls may lack freedom to attend meetings, find answers to their questions, and speak with outsiders, especially male ones. Rural women are using ICTs to surmount disadvantages: to learn, enjoy better health, prosper in livelihoods, access legal help and take care of government and private transactions.

Non-governmental organisations (NGOs) working in rural communities in India routinely support traditional community media such as local language newsletters, posters, pamphlets, street theater (*nuked natak* in Hindi), wall paintings and community meetings. Rural women can relate to ICT materials in local language and with pictures that convey messages that are relevant to their daily lives.

"New ICTs" are accelerating the ability to reach out to villagers in rural areas and to provide additional platforms for interaction. New ICTs, which may be used individually or in convergence with each other, include community radio, Internet radio, mobile phones, computers/laptops/tablets and other handheld devices, information kiosks, tele-centres, video cameras, and the Internet (Nath, 2001). There is an abundance of pilot projects using ICT to engage rural communities. Challenges to engaging rural women through ICT are

many – from infrastructure inadequacies to patriarchal social structures and honing in on relevant and engaging content.

This paper begins with discussion of the roles of NGOs in India in spreading new ICTs to empower rural women having little formal education. We then examine one Indian NGO's experience with introduction of ICTs in development work, particularly with community radio, and three other Indian examples of the many ICTs used to engage rural women – mobile phone applications, multi-purpose village kiosks, and interactive voice response systems. The paper concludes with identification of challenges and recommendations on next steps for NGOs in India to accelerate use of these technologies for empowerment of rural women.

Keywords: *Non-government organisation, Women's empowerment, Community radio, Information and communication technology, Rural development, India.*

Introduction

Roles of Community-Based NGOs

NGOs working at the grassroots encourage community participation so that people are better able to address their own development needs. Most rural development NGOs focus on particular areas, such as education, governance, health, livelihoods, water and sanitation, and women's empowerment. Whatever the development focus of an NGO working in communities, each NGO has a role in ICT at the least to promote their main educational and cultural messages.

Development practitioners widely accept the fact that women's involvement is essential for social and behavioral change in communities due to their focus on the wellbeing of their families. Women living in rural India often have little education and access to ideas about solutions for their family and village problems. In some communities, women have little public presence. It is essential for NGOs to focus on the special situations of rural women in the areas they serve and to reflect on what more the NGO might do to reach women and facilitate greater participation by them. Reaching out and engaging women through ICT can contribute to this effort.

NGOs serve as a bridge for communities to information about government programmes and to initiatives that other communities are taking. NGOs often help individuals and communities build skills as well as knowledge. They help communities take stock of the their situation relative to other villages, and to plan for improvement. In India, they often build capacities of local government institutions such as *panchayats* (village councils) and village committees on education and health. Some NGOs support formation of women's Self Help Groups (SHGs) and federations of SHGs. NGOs often identify resources to fund/bring about change – government and donor programmes, collaborations to generate income, and community contribution to development projects. NGOs also teach citizens skills for monitoring of government programmes.

In 2013, NGOs in India are proactively piloting new ICTs in rural communities while at the same time advocating for and staying alert to emerging government ICT efforts. Under the Universal Service Obligation, the government of India is obliged to

"provide access to telecommunications services to people in rural and remote parts of the country at reasonable and affordable prices (Gulati, 2010)." The Universal Service Obligation fund has taken gender-specific initiatives in compliance with the requirement of gender responsive budgeting (Gulati, 2010). In terms of access to government services through ICT, the National Portal of India serves as a repository of materials on e-governance at a level for government officials and citizens seeking government websites (Voluntary Association for People Service, 2011). At the central level, Ministry of Health and Family Welfare started the Mother and Child Tracking System started in 2010 and, at the state level, Uttar Pradesh Department of Food and Civil Supplies has piloted a system for announcing food grain delivery as part of the Transparent Pargeted Public Distribution System (Digital Empowerment Foundation *et al.*, 2012).

In light of the widespread poverty and the need to accelerate development efforts in India, NGOs have the opportunity and responsibility to bring ICT to communities in which they work. Grassroots intermediaries such as NGOs and community-level health and education workers are key to success in poverty reduction through ICTs (Cecchini *et al.*, 2003). It is incumbent on NGOs to model, or collaborate with others who can model, useful and feasible technology to serve and engage rural communities.

With many pilot ICT projects underway in India, it is important that NGOs collaborate to share their ICT strategies, experiences and learnings. The Digital Empowerment Foundation has established the Digital Knowledge Centre website, http://digitalknowledgecentre.in/, as a platform to promote sharing of ICT pilots and strategies in a broad range of development fields. Mobile phone technology is a main focus of NGOs given the widespread use of mobile phones even in rural areas of India; its widespread use provides the potential for scalability of pilots showing good impact (Digital Empowerment Foundation *et al.*, 2013).

Materials and Methods

This paper begins with the first-hand NGO experience of S M Sehgal Foundation in Gurgaon, Haryana, India, in piloting ICTs in rural communities as part of its core development work on water and sanitation, governance, capacity building and agricultural income enhancement. It then discusses literature regarding use of new ICTs for rural women's empowerment and community development in India. The paper concludes with identification of challenges and recommendations on next steps for NGOs in India to accelerate use of these technologies.

Case Study of SM Sehgal Foundation

S M Sehgal Foundation ("Sehgal Foundation"), a trust registered in India in 1999, dedicates its efforts to further the wellbeing of rural communities in India. With community participation as its approach to insure relevance and sustainability, Sehgal Foundation develops, tests and spreads models on water management, agricultural income enhancement and good governance. Sehgal Foundation has worked in rural development for over a decade primarily in villages in Mewat district, Haryana, where human development indicators are low, and it implements projects in neighboring Alwar district, Rajasthan.

Sehgal Foundation's Communications department publishes Hindi language newsletters for the communities in which it works and its programme staff work with communities on wall paintings to publicly share information in the villages. Community radio station *Alfaz-e-Mewat*, FM 107.8, broadcasts from Sehgal Foundation's community center in Ghaghas, Mewat District, Haryana. A link to live streaming of radio broadcasts is on Sehgal Foundation's home page, www.smsfoundation.org.

Sehgal Foundation observes that many rural residents, many more men than women, in Mewat use mobile phones and very few use computers or Internet services. Below are descriptions of three of Sehgal Foundation's efforts to integrate new ICT into its work: computer-assisted learning, mobile phone supported advice for farmers, and community radio.

Figure 9.1: Mamta: An Alfaz-e-Mewat Radio Jockey from the Local Community, Speaks on Air.

Laptop Assisted Adult Literacy Project

Sehgal Foundation piloted TARA Akshar in Firozepur Jhirka and Nagina blocks of Mewat district from March to December 2007. TARA Akshar, a project of the Development Alternatives Group, at that time taught Hindi literacy to children and adults in 30 days. Students learned with a teacher using laptops with customized Hindi software, based on memory techniques, flash cards and reading materials. The participants were in the age group of 7 to 40 years. Participation in the project was

high; there were few drop-outs. The project achieved the literacy goals for the rural girls and women who participated. After the pilot, Sehgal Foundation discontinued the project in Mewat district due to cost. However this decision may be reconsidered in a future planning cycle. In 2013, the TARA Akshar programme is now 49 days long and operates in parts of Uttar Pradesh and Rajasthan.

Mobile Phone Supported Advice for Farmers

Sehgal Foundation and One World South Asia piloted the LifeLines Agriculture project in 2010. LifeLines provided expert advice to farmers through mobile telephones on agricultural practices, seeds, market situation, prices and more. The project resulted in improved soil health which led to increased productivity, increased earnings and savings. There were other favorable changes such as better nutrition, disease control, improvement in education and skill enhancement (Mehta, 2010). There were several learnings from the pilot. Agricultural information is region specific and it is very crucial that the farmer receives information that is relevant to his/her geographic location, crops and weather conditions. Timeliness in response to farmer's questions was critical to success of the programme. Delays in response discouraged participation in the project. The pilot project in Mewat ended with the funding. Sehgal Foundation is drawing on the learning from this project to refine a model for a pilot with women farmers.

Community Radio

Rural community radio stations serve the dual function of sharing information with listeners and providing the listener community with a means for voicing concerns and opinions. Through a toll-free number or a dedicated phone line, radio listeners can call in to respond to polls or to listen to specific radio programmes. Many people in rural areas access community radio through their cell phones.

Sehgal Foundation's community radio station *Alfaz-e-Mewat* (Voice of Mewat), FM 107.8, is one of 144 community radio stations operating in India (Ministry of Information and Broadcasting, 2013). *Alfaz-e-Mewat* broadcasts for almost 11 hours per day during the morning and evening hours that are the most convenient times for listeners. Caller records indicate that listeners hail from 183 villages in Mewat district and 10 villages in Alwar district, Rajasthan. The radio programming is designed to reach out to listener groups in the community, particularly women, children, youth and farmers. Programming includes shows on agriculture, health, good governance, education, water, entertainment for children and live shows for the community at large. The community radio staff are local people who were trained for their roles at the station, including equipment operation and maintenance, reporting, broadcasting, and editing.

The history of setting up *Alfaz-E-Mewa*t illustrates the complexity of the work of an NGO in supporting such an ICT project. Sehgal Foundation applied for a community radio license in 2009 and the license was granted in 2011. The station began broadcasting in February 2012. Funding was provided by the state Ministry of Agriculture for station construction and for three years of operation, after which time the station is expected to be self-sufficient through advertising, sponsorships and community support.

Sehgal Foundation also recruited another partner, Sesame Workshop India Trust, which provided the broadcasting software (Grameen Radio InterNetworking System, GRINS), training and 90 episodes of a children programme called *Galli Galli Sim Sim* (an Indian adaptation of Sesame Street in the US). After broadcasting for more than the three-month minimum requirement, Sehgal Foundation has been empanelled with Directorate of Advertising and Visual Publicity to run paid public service announcements of government departments. This revenue contributes to the sustainability of the station, which will be essential once the initial grant support ends.

Community radio station operation energizes both Sehgal Foundation's staff and the community. The presence of the radio as a community institution has built hope. There are opportunities for learning, reviving and enjoying local culture, and discussing important local development issues – agriculture, water management, good governance including access to entitlements and services such as education and health care.

Call-in radio shows allow interaction with experts and other guests. The radio station employs listener call-in campaigns to obtain feedback on programming and to elicit ideas and opinions from listeners.

Its community radio experience has led Sehgal Foundation to provide a platform for many organizations working on community media to share experience and learn from the expertise of others. Sehgal Foundation partnered with UNESCO in 2012 to convene an interstate conference in Gurgaon entitled "Rural Voices: Unheard to Empowered" that featured panel discussions and a field trip to the *Alfaz-e-Mewat* station. In view of the wide interest in such a platform for sharing ICT information, Sehgal Foundation and UNESCO held a second annual conference on mainstream and community media in 2013.

The Gender Policy passed by the trustees of the Sehgal Foundation in 2012 has prompted closer attention to outreach to women through ICT. The policy calls for assessment of all of the Foundation's programming as well as other aspects of operations to better accelerate women's empowerment. For example, discussion of this policy sparked the idea for a radio call-in campaign before International Women's Day to elicit nominations from listeners of unsung women achievers in their villages to be publicly recognized.

As of July 2013, some ICT based projects that are in the pipeline at Sehgal Foundation include the promotion (via voice and text messages) of a bio-sand filter for purifying water; use of a flash movie clip played on a tablet computer to educate villagers on hygiene and sanitation; support for farmers with text messages on weather forecasts, and text messages on statutory entitlement updates for citizens in a training programme on governance. Apart from these pilot projects in the community, Sehgal Foundation has planned an online-assisted training programme for the NGO staff to improve their English language skills. On the face of it, the content of these projects is gender neutral, though we plan the messages to be heard by women, who are more likely than men to take action in the interest of their family and community health and wellbeing.

Uses of New ICTs in Empowering Rural Women: Examples

New ICTs offer the potential to reach rural women who are isolated within their family and village structures. New ICTs not only perform traditional functions of sharing information and providing means of communication, but also add speed of outreach, the opportunity for interaction across distances, and the opportunity to reach much larger audiences. ICT software provides the capacity to sort information, target messages to particular audiences, and track the messages and responses. Pictorial and voice messages are especially important for reaching women in view of the high rate of illiteracy among rural Indian women.

In addition to the community radio technology described in the Sehgal Foundation case study, three other categories of ICT that hold promise for rural women's empowerment are discussed below: mobile phone technology, village kiosks or centres, and interactive voice response systems. These technologies are noteworthy for specific reasons: mobile phones are widespread and allow interactivity; village kiosks provide local access without the need of an individual mobile phone and also provide a place for social interaction that tends to reinforce use of the technology and learning; and interactive voice response systems tap the interests of the rural women users, ensuring that the content is relevant and the communication level appropriate.

Though these are examples of freestanding technologies, there is increasing convergence in their use. Community radio may or may not have an interactive voice response system component, for example. Interactive voice response systems may be accessed by mobile phones or landlines.

Mobile Phone Technology

Women's ownership of mobile phones in India lags behind men's ownership but is rapidly growing. From 2009 to 2011, women's ownership of mobile phones grew by 40 per cent (Digital Empowerment Foundation and UNICEF, 2013). Fewer Indian rural women than urban women own a mobile phone. The reasons women give for not owning a mobile cited in a 2010 study by Vital Waves Consulting include "the cost of handsets and service, a lack of need for a mobile phone and fear of being able to master the technology. Cultural issues, such as the traditional roles of men and women, are also a factor in women's mobile phone ownership and can delay or even prevent a woman's acquisition of a mobile phone" (Vital Waves Consulting, 2010).

Experts in India have identified six ways in which communities, NGOs, government offices and others are using mobile phones in rural development work:

- ☆ Information dissemination
- ☆ Interpersonal communication
- ☆ Progress tracking, monitoring
- ☆ Training of front line workers
- ☆ Advocacy and outreach
- ☆ Community mobilization (Digital Empowerment Foundation *et al.*, 2013)

A few examples of mobile phone projects of particular relevance to rural women are:

Helplines that provide information and interaction: This is a traditional use of telephone for support to the public. Mobile phones make it possible to place calls from locations away from landlines, either in or outside homes or at community sites, which may increase use of the helplines and thoroughness and accuracy in reported information. Two examples are for a women's helpline addressing security issues for women through a collaboration between an NGO and a police station (Vodafone India Foundation *et al.*, 2011), and a helpline of the Haryana Department of Education to accept reports of complaints about implementation of the Right to Education (Department of School Education, Haryana, 2013).

Short messaging service (SMS) audio or pictorial technology: This is a way to broadcast locally relevant information to targeted audiences regardless of illiteracy. Such SMS are used in many kinds of projects, including for:

(a) Accessing information such as weather or market information for women farmers (Vodafone India Foundation and Digital Empowerment Foundation, 2011),

(b) Sending health messages to pregnant women and new mothers about maternal and child health (Vodafone India Foundation and Digital Empowerment Foundation, 2011),

(c) Transmitting information about local water availability (NextDrop, 2013)

(d) Training women in goat rearing and negotiating skills as business women (Vidiyal, 2012; Spaven, 2011), and

(e) Providing updates on relevant to their business opportunities (Digital Empowerment Foundation *et al.*, 2013).

In some communities, women may perceive no need for a mobile phone in their daily routine. NGOs can build awareness of the potential benefit to women by spreading concrete local examples of the helpfulness of timely information.

Village-Based Centers or "Kiosks"

Where can rural women access technology besides through mobile phones?

In the developed world, there is often Internet access through public libraries; a consortium of organisations is spreading this approach in developing and transitioning countries (Beyond Access, 2012). In the absence of such public library facilities in rural India, some NGOs, local governments, NGOs and entrepreneurs have helped establish village-based centers or "kiosks". These "kiosks" may be located in existing institutions – such as health centers, schools and community centers (United Nations, 2005). With computer access and skills, rural women can use e-governance tools for information, requests and transactions (Government of India, 2008). Some of rural women with sufficient education can be trained for self-employment in the IT sector, such as data management and distribution transaction processing (Sulaiman *et al.*, 2011). Such rural internet kiosks, sometimes community-owned, can save villagers' time and money. Gyandoot, for example, is an intranet network supported by *Panchayats* in Dhar, Madhya Pradesh (Gyandoot, 2012). Some "kiosks" in India are also being utilized to improve the quality of education, get better job opportunities with higher

salaries, and enhance literacy and awareness (Voluntary Association for People Studies, 2011).

For rural women to effectively utilize ICT in their daily activities, they require training and a continued support structure at least in the initial stages. Training programmes should closely monitor participants' learning, level of self-confidence, skills and knowledge and overall give moral support. Women will feel empowered only if they are able to clearly see the benefits of using ICT and improve the quality of their lives. For women with secondary level of education, training in ICT has contributed to expanding income-generating opportunities by providing new forms of employment opportunities. For example, the Credit Society of Medchal (Andhra Pradesh, India) has been training its women members on digital literacy and encouraging them to start computer training centres as business propositions (Khalafzai *et al.*, 2011).

Some researchers have found that community radio and village knowledge centres, which have locally relevant content and reinforce community-based discussions, have the greatest potential to reach women (Sulaiman *et al.*, 2011). On the other hand, researchers have pointed out that unless the underlying government services, often performed manually, are improved, that the technology does not bring significant change (Indian Institute of Management, Ahmedabad, 2002).

Interactive Voice Response System

ICT content should be relevant to rural women, expressed in local parlance and provided in a timely fashion. One approach to insure relevance and local language is to start the flow of information from the community, engaging community members in expressing their thoughts, questions and concerns and in responding to the matters raised by others in their community (Cecchini, 2003; Gram Vaani, 2013). The social technology organization Gram Vaani (Voice of the People) created Jharkhand Mobile Vaani to provide such a platform, built on an intelligent interactive voice response system that allows people to call into a number and leave a message about their community, or listen to messages left by others (Gram Vaani, 2013). A trained editor validates the recorded messages before they are shared with other callers. Such interactive systems are often operated in conjunction with community radio stations, which may then more widely broadcast the issues raised by the community in the station's local programming.

Discussion

Insights on Roles of NGOs in ICTs for Empowering Women

For NGOs to help harness the power of new ICT for rural women, they must educate their own staff about the opportunities available, the analysis for selecting/customizing new ICT, facilitation of implementation of new ICTs, and monitoring and evaluation of the ICT implementation. This is no easy task, as there are many technologies being piloted in the development sector and many new ICT developers promoting their own products. There is significant expense involved; coupled with uncertainty, that is a deterrent to trying new ICTs. Most of the literature reports on the array of particular pilot projects, rather than assisting development practitioners in

identifying strategies for selecting technology appropriate for their activities and for evaluating their impact.

Practical factors affect NGO decisions about piloting of ICT for development in rural areas. Inadequate infrastructure, such as reliable power sources and Internet and mobile phone connectivity, poses challenges to successful implementation of a new ICT (Ramachander, 2009). NGO employees are often focused on high priorities in their day-to-day development projects, rather than on exploring ICT possibilities and providing necessary support to customize and implement them with communities. They may be reluctant to pilot ICTs with great promise that are apt to be unsustainable. It is important nonetheless for NGOs to allocate some time, energy and resources to learn about and discuss new ICTs with communities, to elicit community ideas about using them and to search out solutions to challenges.

Figure 9.2: Young Women from the Community Record their Opinions for Broadcast on Alfaz-e-Mewat.

To summarize, key NGO roles can be to:

- ☆ Learn about ICT opportunities of special use and interest to women
- ☆ Share an inspiring vision of women's empowerment to staff and the community
- ☆ Network with organizations specializing in ICT use in the development sector

- ☆ Engage women in rural communities in learning about ICT options
- ☆ Identify content relevant to rural women in the area through participatory methods
- ☆ Find and secure financial and expert resources
- ☆ Help replicate suitable ICT projects for and with communities often in partnership with ICT experts
- ☆ Innovate and pilot new ICT use adaptations in consultation with communities
- ☆ Monitor and evaluate the effectiveness of specific ICTs to achieve their purposes in specific locations
- ☆ Assist with securing resources and government approvals
- ☆ Build capacity of communities to manage ICT projects locally and
- ☆ Provide platforms for discussion of ICTs and selection strategies to meet rural community needs.

Challenges

What are the challenges that NGOs and communities face in making greater use of available ICTs?

Organizational Support for Change

Stakeholders at all levels may lack the gender sensitization and ICT knowledge to inspire a desire to adopt change. It may seem hard to imagine how the ICT will really work and how to adapt it to empower women in particular (Sulaiman *et al.*, 2011). Staff and community members' interest in making communication technology changes is essential. NGOs should provide training on ICTs and network with others in the development sector working with ICTs to empower women.

Evaluating many Options

If open to considering new ICTs, NGOs have many options. It seems complicated to pick wisely from among them. Since there are many pilots of digital ICTs, and many of them quite recent, there have been few external impact assessments. How should an NGO choose ICTs to present to communities for discussion?

Quality of the Information and its Expression

Much of the discussion in this article is about the communications technologies and the suitability of the design of the ICT project for rural women. The quality, utility, timeliness and expression (local language and appropriate communication level) of the information provided for specific communities are key to success of an ICT project. To remain relevant and useful over time, the ICT must allow a dynamic process rather than static information broadcast.

Capability and Views of the Rural Women Engaged

NGOs need to interact with the women they seek to engage to determine their needs, abilities and views, and the degree of support ("human intermediation") that

will be required to use the technology effectively (Sulaiman *et al.*, 2011). What NGO staff find interesting and valuable may not appeal to particular rural women.

Infrastructure Gaps

Some areas do not have reliable mobile service and/or reliable electricity service for recharging phone batteries or operating computers and the like. Many rural areas do not have Internet access.

Financial Accessibility

If women see the benefit of the new ICT, they may lack access unless it is a totally subsidized programme. How will rural women afford phones, mobile service, other equipment and service connections?

Reluctance to Partner

NGOs may be reluctant to partner with others on ICT if NGO funds are required and they are unsure of a successful outcome.

Government and other Formal Processes

An ICT such as community radio requires government approvals. Meeting all the technical requirements for approval takes time and dedication to the task. Likewise, donor-funded projects often require sophisticated evaluation and reporting that may be difficult for smaller NGOs.

Sustainability

Community radio stations face the challenge of financial viability to retain good staff and maintain and update equipment. Similarly, other ICT systems require human resources and equipment. Sustaining an ICT system requires commitment, resources and know-how.

Conclusions

To accelerate the pace of access to ICT for rural women in India, NGOs should keep these points in mind:

Knowledge Sharing

NGOs need to learn about digital ICTs, share their learning with women in rural communities, and discuss with women their priorities and their access to ICTs. NGOs can connect communities with experts and trainers to involve grassroots women in designing and implementing a project suited to women's priorities. Broadcasting generic content has some value, but it is more likely that interaction with rural women will lead to answering their specific questions and addressing their needs. Through NGO networks specializing in ICT, NGOs can identify providers, technical and content support, potential funders and successful funding strategies. There is need for study of the impact of the pilot projects to refine them and identify best practices.

Digital Empowerment Foundation catalogues and highlights the features of ICT projects in rural India, with special attention to those designed to empower women. It also shares creative solutions that are emerging to various infrastructure inadequacies.

Such platforms are essential for helping NGOs to analyze the vast array of proliferating pilot projects,

Design of ICTs for Empowering Women

Relevance of particular ICT uses to "rural women" depends on the education level and circumstances of the specific women in specific localities. In view of widespread female illiteracy, voice-based and symbol-based systems for mobile phone technology will be important for effective communication with many. In addition, NGOs should support female literacy programmes. But there are also rural women with sufficient education to engage in livelihoods related to ICTs. Rural women's involvement in the design and selection of ICT uses will bring these issues to the forefront.

The Centre for Research on Innovation and Science Policy in Hyderabad, India, in collaboration with partners in Bangalore and Scotland, has developed a three-stage consultative approach for designing programmes for women (Centre for Research on Innovation and Science Policy, 2013). This approach includes needs assessment, women's aspirations, available resources, pros and cons of intervention options, and opportunities for convergence.

Community Networks

Women's empowerment through ICTs builds on the existence of networks with which women can engage and gain confidence and skills (Sulaiman *et al.*, 2011). Self–Employed Women's Association (SEWA) in India and other self help groups provide a sound support network for women, who grow in their ability to make decisions, solve problems, and plan for their futures. The technology itself does not empower an individual woman without more; it is the participation in a learning and problem-solving community that supports her confidence and personal agency. ICT broadcasts can spark discussion among local radio listener and television viewer groups (Sulaiman, 2011). NGO support may be required to facilitate local level communications in initial stages.

Affordability

To enable access, women below poverty level will need government subsidies or private sponsorships through foundations or other donors for mobile phones/service. Alternatively, ICT uses that are tied to livelihoods may become a cost of doing business for small farmers and entrepreneurs. Community kiosks located in spaces accessible to women are another way to make new ICT available. Government, community contribution, and/or the private sector should fund them.

Emergent Nature of ICT Technology

There are many pilot ICT programmes. NGOs should monitor the experience of pilot programmes, address problems and refine the models. NGOs should study the impact of ICTs for rural women on development outcomes and share these results within the development sector and with policymakers. The underlying technologies are rapidly changing, and we can expect a high learning curve, ongoing need for evaluation and constant refinement. We can expect that pilots of various kinds will

continue for years and that a range of good models will be developed and be customized for local needs.

NGOs should be vital agents for bringing ICT into development sector work to empower rural women. Rural women lag far behind in the education and information access necessary to make good decisions for their own well-being, that of their families and that of their communities. While there are challenges and complex issues to address to tap the potential of new ICTs for women's empowerment, it is clear that NGOs are essential partners for communities to successfully seize the opportunities that ICTs can offer.

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